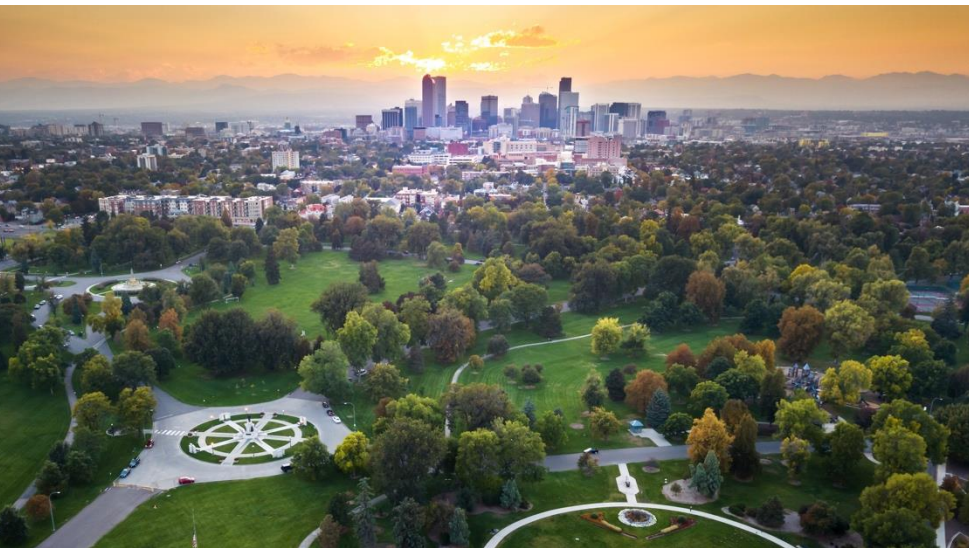
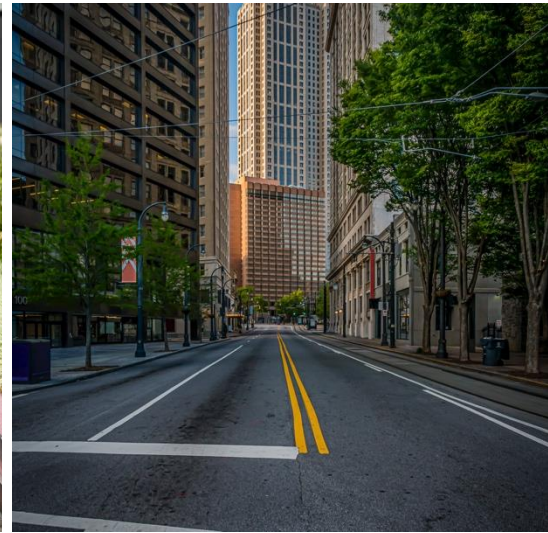


Capital Improvement Programming

Using Value Capture to Fund Transportation Improvements



Primer
Every Day Counts
Innovation Initiative
February 2021



U.S. Department of Transportation
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FOREWORD

State and local governments often struggle to mobilize the necessary funds to maintain, rebuild, and expand their local transportation networks. Planned projects often face funding or financing hurdles that may result in projects being delayed for years (if not indefinitely). Such delays result in important safety and mobility objectives being unmet.

Value capture refers to a set of techniques that generally take a share of increases in property tax revenues, economic activity, and growth linked to infrastructure investments to help fund those infrastructure improvements. Under certain circumstances, value capture may allow practitioners to close funding gaps and accelerate project delivery, as well as help spur economic development and achieve other community goals.

The capital improvement program or plan (CIP) is a tool that local communities can use for planning, fiscal management, and budgeting purposes. First, the CIP can be used as a planning tool to implement local comprehensive plans and transportation plans. In addition, the CIP can be used as an effective fiscal management tool to identify future capital needs in advance, allowing time to secure State and Federal funds for their implementation, and to monitor the schedule and financial status of ongoing capital projects. Finally, a CIP can serve as a budgeting tool to develop a capital budget, estimate the impact of capital improvements on the operating budget, and maintain a balanced budget (as is required by most States).

Value capture techniques are often used to totally or partially fund transportation projects identified in the CIP. The use of the CIP allows coordination with metropolitan and regional transportation planning efforts to ensure that an adequate combination of local, State, and Federal funds is available in time and quantity over the entire life of the project. As a result, the funds are available when they are required, expediting delivery of the project.

This primer was developed on behalf of the Federal Highway Administration's Value Capture Implementation Team and is based on a review of relevant literature, interviews with practitioners, case studies, and lessons learned from practicing agencies. Its audience includes two groups of practitioners:

- 1) Practitioners from communities that do not currently have a CIP but may be considering adopting one in the near future.
- 2) Practitioners from communities that already have a CIP but are interested in learning how value capture techniques may assist them in generating transportation funding for critical projects.

This primer provides an overview of the most important elements of a CIP and the capital improvement process, with an emphasis on the use of value capture techniques for the transportation component of the CIP. The primer highlights the value of coordination between the development of a CIP for a local government and the development of a metropolitan transportation improvement program for a metropolitan planning organization and a statewide transportation improvement program for a State department of transportation. Finally, the primer provides four case studies to illustrate how different communities across the country have used value capture techniques to fund the transportation projects included in their CIPs, and how the CIP allowed the execution of these projects on time and within budget.

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EXECUTIVE SUMMARY

Capital improvement programming is the multiyear scheduling of capital improvements based on available fiscal resources and a community's desire for specific improvements. The capital improvement program or plan (CIP) is the result of completing the process of capital improvement programming. A CIP consists of a capital program and a capital budget. A capital program is a planning and fiscal management tool that provides a schedule for the cost and funding of all capital projects that are programmed for the next 5 to 10 years. The first year of a CIP becomes the recommended capital budget for the next fiscal year. The recommended capital budget is typically submitted to the local government's governing body for its review and adoption in conjunction with the operating budget.

A CIP has the following objectives:

- Implement the goals of a jurisdiction's comprehensive plan.
- Ensure timely construction or renovation of infrastructure to provide the level of services identified in the comprehensive plan.
- Identify funding sources for each capital improvement.
- Provide a baseline (recommended capital budget) for the annual budget.
- Coordinate capital and operating budgets.
- Create transparency around the process of selecting and funding capital projects.
- Inform the public about future needs for capital improvements.
- Coordinate a locality's priority transportation projects with those reflected in metropolitan transportation plans and transportation improvement programs. This helps to ensure that the locality's priority projects are eligible for Federal and State transportation funds when the projects are needed.

A CIP can be used as a planning tool to implement comprehensive transportation plans. Moreover, it can be used as a fiscal management tool to identify capital needs in advance, allowing time to secure State and Federal funds and to monitor ongoing projects in terms of schedule, costs, and financial status. Finally, a CIP can serve as a budgeting tool for recommending a capital budget, computing the impact of capital improvements on the operating budget, and maintaining a balanced budget (as is required in some States).

There is a set of common local and regional guiding documents that can inform the process of developing a CIP. The consideration of these documents can ensure that the CIP includes projects aligned with adopted plans and that funding sources and constraints are properly identified. These guiding documents are presented in Table 1.

Table 1: CIP Guiding Documents

Time Horizon	Local Jurisdiction Level	Regional/Metropolitan Jurisdiction Level
20–30 years	Comprehensive plan	Statewide long range transportation plan
20+ years	Transportation plans	Metropolitan transportation plan
4–10 years	CIP	Transportation improvement program
1–2 years	Annual budget	Unified planning work program

The process of developing a CIP can be divided into nine sequential steps:

1. Adopt a CIP ordinance, appoint a CIP coordinator, and set a schedule.
2. Prepare an inventory of existing capital assets.
3. Determine the status of previously approved projects.
4. Assess fiscal and financial resources.
5. Solicit and compile project requests.
6. Evaluate, prioritize, and select projects.
7. Develop a CIP financing plan.
8. Prepare a program draft.
9. Review and adopt the CIP.

Once these steps are completed, the governing body prepares the capital budget using the capital expenditures identified in the CIP as a baseline. Next, the governing body adopts the capital budget. Once the fiscal year begins, local government departments are authorized to begin implementing projects included in the CIP. However, they will likely need to coordinate the purchase of equipment or services in advance with the department of finance or budget to confirm that the funds are available at that time.

The execution of transportation capital improvements requires a set of actions that can be grouped in the following categories: planning and community engagement, environmental, right-of-way, design, and construction. Each of these actions has an inherent level of uncertainty and should be closely monitored.

It is important to update a CIP every year, although some communities do it every 2 years. Certain local governments may review the CIP only when major capital improvements are needed. However, this practice may significantly reduce the usefulness of the CIP as a tool for fiscal planning or budgeting.

CIP legal frameworks are generally found in State laws dealing with planning and budgeting by local governments. The requirement to adopt a CIP varies from not requiring one to explicitly or implicitly requiring it under certain circumstances. The States of Texas and Oregon require local governments to adopt a CIP when they intend to assess impact fees (Texas) or system development charges (Oregon) to pay for capital improvements or facility expansions. Similarly, the State of Washington requires local governments with a population above certain levels to implement a comprehensive land use and development plan, which in turn requires a 6-year capital facilities plan.

Implementing a CIP allows a community to apply an orderly and systematic planning approach for the acquisition, financing, and use of capital improvements. This approach affords communities with opportunities to ensure that the program reflects their needs and priorities, and enjoys support not only

from elected leaders but also from the public at large. In addition to opportunities, there also are challenges associated with implementing a CIP, particularly for communities that do it for the first time. Table 2 summarizes some of the most significant opportunities and challenges associated with implementing a CIP in three implementation areas: public and political acceptance, equity, and cost and administration.

Table 2: Opportunities and Challenges of a CIP¹

Implementation Area	Opportunities	Challenges
Public and Political Acceptance	<ul style="list-style-type: none"> • CIPs include multiple opportunities to inform the public about capital improvements and gather inputs. • CIPs also inform business owners, developers, and bond investors regarding the vitality of the community, the cost of services, and the sustainability of its tax burden. • CIPs provide transparency and a rational approach to prioritize capital improvements, reducing public pressure on elected officials. • CIPs can help maintain steady payments and tax rates over time. 	<ul style="list-style-type: none"> • Some officials may be uncomfortable with sharing control of the process with the public. • Other officials may not support the adoption of a CIP.
Equity	<ul style="list-style-type: none"> • CIPs provide a mechanism to help ensure that capital investment decisions are made considering fairness to all stakeholders in a community in terms of who incurs the costs and consequences of those decisions. 	
Cost and Administration	<ul style="list-style-type: none"> • CIPs can afford community financial benefits, such as earning a good credit rating, promoting economic development, spotting the hidden costs or avoiding unexpected expenditures, and successfully competing for State or Federal funds. • Over time, the process of updating an existing CIP (or developing a new one) becomes more familiar and less demanding. 	<ul style="list-style-type: none"> • The cost challenge that communities may face in implementing a CIP is that it requires a multidisciplinary team skilled in financial management, project management, and public participation. • Managing, maintaining, and monitoring a CIP also poses some administrative challenges. Implementing a CIP, particularly for the first time, requires a considerable amount of effort from local government officials and staff.

State and Federal transportation funds and grants have traditionally been used to fund transportation improvements. The growth in local transportation needs has outpaced the availability of traditional State and Federal funding sources, creating a funding gap. Value capture techniques have the potential to help communities reduce this funding gap, making possible the delivery of critically needed projects. Table 3 presents the value capture techniques most commonly included in CIPs.

Table 3: Common Value Capture Techniques Included in a CIP

Technique	Definition
Impact Fees	Fees imposed on developers to help fund the additional public services, infrastructure, or transportation facilities required due to the new development.
Transportation Utility Fees	Fees paid by property owners or building occupants to a municipality based on estimated use of the transportation system.
Special Assessments	Fees charged to property owners within a designated district whose properties are the primary beneficiaries of an infrastructure improvement.
Tax Increment Finance	Charges that capture incremental property tax value increases from an investment in a designated district to fund or finance the investment.

CHAPTER 1. INTRODUCTION

A capital improvement program or plan (CIP) is widely considered to be one of the most valuable tools that a local government has to ensure that it invests its limited financial resources in the best possible way to achieve the community's plans and vision. A CIP is a fiscal planning tool developed through a process called capital improvement programming. The terms *capital improvement programming* and *capital improvement planning* are often used interchangeably. The former has been in use the longest and has the most widespread use, and as a result, it is used throughout this document.^{2,3,4}

The CIP contains the scheduling of public physical improvements (including transportation improvements) over a period of several years (generally 5 or 6 years). This schedule of improvements is developed based on an analysis of funding sources and the specific improvements the community chooses to build. A CIP can be very useful in identifying the need for capital investments, their magnitude, and sources of funding.

The requirement to adopt a CIP varies widely from State to State, and even in States that have a requirement, it may not apply to all local government units. Some States require local governments to develop and implement a CIP before they can levy impact fees or some forms of taxes (see Chapter 2 for more details). In practice, many local governments choose to adopt a CIP not only because State law requires it, but also because it provides significant benefits as a planning and financial management tool.

Because most capital improvements involve the disbursement of large amounts of funds that are difficult for local governments to make through single annual appropriations, a number of funding sources and financing techniques have evolved to allow local governments to pay for capital improvements over several years. These include funding sources, such as:

- Current revenue (e.g., general taxation, fees).
- Debt instruments (e.g., general obligation and revenue bonds).
- State and Federal grants.
- Value capture techniques (e.g., tax increment financing, special districts, special assessments).

Table 4 discusses some of the most commonly used funding methods by local governments in a CIP in more detail.

Value capture techniques generate funding for infrastructure by “capturing” some or all of the value produced by public investment within an area in the form of economic development (e.g., increased property values, land development, employment, sales). Local governments have used value capture techniques for many years to fund different types of local infrastructure improvements. However, the use of value capture to generate funds for transportation infrastructure is relatively new.

The audience of this primer includes two groups of practitioners. The first group consists of practitioners from communities that do not currently have a CIP but that are considering whether to adopt one in the near future. The second group comprises practitioners from communities that already have a CIP but are interested in learning how value capture techniques could generate funding for critical transportation projects. Broad capital expenditures of all types are included in a CIP. This primer provides practitioners

with an overview of the most important elements of a CIP and the capital improvement process, with an emphasis on the use of value capture techniques for the transportation component of the CIP.

Practitioners familiar with transportation planning will notice the many parallels between the development of a CIP for a local government and the development of a metropolitan transportation improvement program (TIP) for a metropolitan planning organization, and a statewide transportation improvement program (STIP) for a State department of transportation. In fact, the TIP and STIP are critical for the development of the CIP in that the eligibility of a CIP's transportation projects for State and Federal transportation funding sources is tied to the projects being part of the adopted regional plans.

This chapter introduces capital improvement programming in the context of its role in achieving a community's vision, and the different value capture techniques that can help generate funds to implement the transportation component of the CIP. The chapter then closes with a summary of the structure of this primer.

1.1 The Comprehensive Plan and the Capital Improvement Program

A comprehensive plan (also known as a community plan, master plan, or general plan) is a long-range blueprint that establishes the guidelines for what a community aims to achieve in the future.⁵ The comprehensive plan is the cornerstone of community planning efforts. It is a document that defines a community's vision and identifies challenges, solutions, and recommendations to implement this vision.⁶ The comprehensive plan is a living document used by local governments during the planning process. Communities typically update their comprehensive plans periodically (e.g., every 5 to 10 years) to reflect changes in the community's needs. In most cases, a comprehensive plan provides guidance for a period of 20 years or more.

A comprehensive plan is usually divided into elements, which may vary from community to community. The elements in a comprehensive plan commonly include the following:^{7,8}

- Population
- Transportation
- Public facilities/infrastructure
- Natural and cultural resources
- Housing
- Economic development
- Intergovernmental coordination
- Capital improvements
- Public health
- Energy
- Community characteristics
- Land use
- Priority investments
- Other elements, such as the revitalization of a certain area of the community (or improving the relationship with neighboring cities)

For each of its elements, a comprehensive plan covers:

- Existing conditions.
- Goals and objectives specific to the element.
- Initiatives or strategies that need to be implemented to achieve the goals and objectives.

The implementation of a comprehensive plan involves capital improvements. Capital improvements refer to the construction, purchase, or major renovation of buildings, utility systems, or other physical structures. The CIP lists capital improvement needs in order of priority, identifies funding sources and financing mechanisms (see Table 4), and provides a schedule for their implementation over multiple years (commonly 3 to 6 years, but sometimes up to 10 years).³ The CIP is a powerful tool to implement a community's comprehensive plan, and as such, it should be consistent with the plan's land use policies and infrastructure recommendations. Just as a comprehensive plan has different elements, the CIP has multiple elements or departmental sections (e.g., culture and recreation, public utilities, transportation). This primer focuses on the transportation element section of the CIP.¹

Table 4: Common CIP Funding Sources and Financing Mechanisms⁴

Technique	Definition
Current Revenue (pay as you go)	"Pay as you go" refers to the financing of improvements using current revenues, such as general taxation, fees, and service charges.
Reserve Funds	Reserve funds are monies that are accumulated in advance for the purpose of infrastructure construction or equipment purchases. The accumulation may result from excess current revenue, funds in depreciation reserves, or the sale of assets.
General Obligation Funds	This funding technique refers to debt backed by the full taxing power of the local government. Municipalities can use general obligation bonds to pay for permanent improvements, such as schools, municipal buildings, parks, and other public facilities. Issuing general obligation bonds may require voter approval.
Revenue Bonds	These bonds are frequently sold to pay for projects that produce revenues, such as water and sewer systems.
Lease-Purchase	This method involves a local government preparing specifications for an improvement that is constructed by a private company. The facility is then leased to the local government for a period of time at the end of which the facility can be conveyed to the local government.
Special Assessments	This method is often used to pay for public investments that benefit particular properties more than benefiting the public at large. Some examples of improvements financed by special assessments include street paving, curbs, streetlights, sanitary sewers, and water mains.

¹ The department that deals with transportation projects in a community can go by different names (e.g., department of public works, department of transportation, department of streets and maintenance).

Technique	Definition
State and Federal Grants	These grants are from State or Federal governments for specific programs in areas such as economic development, housing, and transportation.
Tax Increment Financing (TIF)	A TIF is typically used to raise funds for upfront public improvements in an area where large-scale development or redevelopment is possible. A TIF district is designated around the proposed improvement with a tax base equal to the value of all real property within the area. The TIF district uses incremental tax revenue on future gains in real estate values over and above the value of the district's tax base when it was created to pay for the public improvements.
Public-Private Partnerships	These are contractual arrangements between a local government and a single private sector entity in which the private entity is responsible and financially liable for performing all or a significant number of functions in connection with the project. Some of the most popular partnerships include full privatization, where a facility is built, operated, and owned by a private company, and cost sharing (also called joint development), wherein a developer pays for some facilities and the public pays for others.

It is important to update and review the CIP regularly. A common practice is every 1 or 2 years. Certain local governments may decide to review the CIP only when major capital improvements are needed. However, this practice may significantly reduce the benefits of having a CIP. The main benefits of a CIP that is properly developed and regularly updated include the following:⁹

- Facilitates the development of the annual budget by recommending a capital budget and providing an estimated impact of capital improvements on the operational budget.
- Plans financial resources over the next 5 to 10 years, avoiding duplicate expenditures across departments.
- Improves the delivery of capital improvements by identifying comprehensive packages of funding sources, which may be a mix of traditional funding sources and value capture techniques.
- Increases the opportunities for accessing Federal and State funds.
- Prioritizes capital improvements according to the comprehensive plan, thereby facilitating its implementation.
- Coordinates the execution of different capital improvements in terms of schedule and funding.
- Increases transparency by informing the public about how taxpayers' money will be used to pay for capital improvements.
- Monitors the progress and expenditures of capital improvements, reducing the risk of costly mistakes.
- Balances community desire for capital improvements with fiscal capacity.

1.2 Role of Value Capture in Facilitating the Implementation of a CIP

Funding sources and financing mechanisms are a critical component of a CIP because they constrain the number and scale of the improvements that a local government can reasonably deliver. The CIP identifies the specific funding sources and financing mechanisms needed to carry out each project, allowing local governments to leverage different funding sources to deliver critical projects for their communities in a timely manner.

As noted earlier, the use of value capture as a funding and/or financing mechanism for transportation is relatively new. Value capture techniques can be classified in six categories, and the names of each technique may change from State to State and from community to community. Table 5 lists the value capture categories and discusses some of the most common techniques used for transportation funding within each category.

Table 5 also notes whether each value capture technique is generally used as a funding mechanism only or as a financing mechanism, or as both. It is important to highlight the difference between funding and financing. Funding refers to available sources to pay for a certain infrastructure investment. On the other hand, financing refers to the set of arrangements that ensure there is enough cash upfront or during appropriate project phases to pay for the capital costs. Financing techniques allow local governments to leverage future revenues from different funding sources to pay for the current investment.

Table 5: Value Capture Techniques¹⁰

Category	Technique	Definition
Developer Contributions	Impact Fees	Fees imposed on developers to help fund additional public services, infrastructure, or transportation facilities required due to the new development.
	Negotiated Exactions	Negotiated charges imposed on developers to mitigate the cost of public services or infrastructure required as a result of the new development.
Transportation Utility Fees	Transportation Utility Fees	Fees paid by property owners or building occupants to a municipality based on estimated use of the transportation system.
Special Taxes and Fees	Special Assessments	Fees charged to property owners within a designated district whose properties are the primary beneficiaries of an infrastructure improvement.
	Business Improvement Districts	Fees or levies charged to businesses within a designated district to fund or finance projects or services within the district's boundaries.
	Land Value Taxes	Split tax rates, where a higher tax rate is imposed on land than on buildings.

Category	Technique	Definition
Tax Increment Finance	Sales Tax Districts	Additional sales taxes levied on all transactions or purchases in a designated area that benefits from an infrastructure improvement.
	Tax Increment Finance	Charges that capture incremental property tax value increases from an investment in a designated district to fund or finance the investment.
Joint Development	At-Grade Joint Development	Projects that occur within the existing development rights of a transportation project.
	Above-Grade Joint Development	Projects that involve the transfer of air rights, which are development rights above or below transportation infrastructure.
	Utility Joint Development	Projects that take advantage of the synergies of broadband and other utilities with highway rights-of-way.
Naming Rights	Naming Rights	A transaction that involves an agency selling the rights to name infrastructure to a private company.

1.3 Structure of the Primer

This primer consists of six chapters, including this introduction. The remaining chapters are listed below along with a summary of their contents.ⁱⁱ

- **Chapter 2** reviews the basic concepts required to understand the contents and structure of a CIP; describes the purpose, objectives, and uses of a CIP; and provides an overview of the legal framework governing capital improvement programming.
- **Chapter 3** describes the implementation process of a CIP, covering the guiding documents and plans that provide direction to the CIP, and the typical process of developing and subsequently administering the CIP.
- **Chapter 4** discusses the opportunities and challenges associated with developing a CIP from the standpoint of achieving a community's vision from different perspectives, including public and political acceptance, equity, cost, and administration.
- Finally, **Chapter 5** provides summaries of case examples of CIPs for different community sizes (small, medium, and large), with a focus on their transportation component.

ⁱⁱ Tables and figures included throughout this document were developed for this primer, except as otherwise indicated.

CHAPTER 2. CAPITAL IMPROVEMENT PROGRAMMING BASICS

This chapter reviews basic capital improvement programming concepts required to understand the overall content of a CIP with an emphasis on the transportation component. The chapter consists of five sections. The first section provides a definition of *capital improvement programming* and *capital improvement* as those terms are used in this primer. The second section describes the main elements of a CIP. The third section presents the purpose, objectives, and uses of a CIP. The fourth section discusses the legal framework and authority governing the development and adoption of a CIP. Finally, the fifth section defines and describes the common value capture techniques used as funding sources in CIPs.

2.1 Definitions of Terms Used in This Primer

2.1.1 Capital Improvement Programming

Capital improvement programming is the multiyear scheduling of capital improvements based on available fiscal resources and the community's desire for specific improvements. The CIP is the result of completing the capital improvement programming process. A CIP entails a capital program and a capital budget. A capital program is a planning and fiscal management tool that provides a schedule for cost and funding of all capital projects that are programmed for the next 5 to 10 years. The first year of a CIP becomes the recommended capital budget for the next fiscal year.⁹ However, it is not legally binding in that the local government is under no obligation to abide by the revenues and expenditures projected for years beyond the first-year capital budget. The recommended capital budget will typically be submitted to the local government's governing body for its review and adoption in conjunction with the operating budget.

2.1.2 Capital Improvement

A capital improvement (also known as a capital project) is an undertaking that involves the construction or purchase of a new permanent physical structure or a utility system to satisfy new community needs. A capital improvement also may involve the renovation of existing physical infrastructures to increase their service life and continue satisfying current community needs.³ Examples of capital improvements are streets, utility systems, bridges, or roadways, among others.

The execution of a capital project may require purchases of land or special equipment. If these purchases are required to execute the project, they are considered to be capital purchases and will be included in the CIP. For example, the construction of a roadway section requires the purchase of land for the right-of-way and special equipment (e.g., traffic lights and traffic control devices). In this example, the purchase of land and special equipment can be considered capital purchases and should be included in the CIP.

Other equipment purchases that are related to a capital project but are not required for its execution are generally considered to be operating expenses. Consequently, they should not be included in the CIP but in the operating budget. However, the definition of a piece of equipment required for the execution of the project may vary across communities. A clear example is the construction of a bus station. For some communities, the purchase of buses should be considered a capital purchase, because without buses, the station cannot operate. However, other communities may consider that the purchase of buses is not

required to complete the construction of the station, and consequently they should be included in the operating budget. In general, if a small equipment purchase can be easily absorbed by the operating budget, the equipment is not included in the CIP but rather in the operating budget. In addition, large non-recurring operating expenditures (e.g., equipment over \$25,000) that have a minimum useful life span (e.g., 5 years) are normally included in the CIP for better fiscal planning.

2.2 Elements of a CIP

The CIP consists of four elements: narrative, prioritized list of projects and cost estimates, funding sources, and project detail form. This section describes the content of each element.

2.2.1 Narrative

The CIP narrative consists of the overall narrative and the narrative in the sections that contain the capital projects of each department. This document emphasizes the capital projects of the transportation department section.

The contents of the overall narrative may vary across communities. However, the most frequent ones are:

- Purpose and objectives of the CIP.
- Background information of the community and the local government responsible for the CIP.
- Definitions of terms that are used in the document (e.g., capital project, capital equipment, funding source).
- Description of the CIP process and criteria followed to prioritize projects.
- Scoring matrix of submitted projects.
- Definition of available funding sources and the provision of revenues for the next fiscal year and future years.
- Definition of priority areas that need significant capital investments.
- Summary of projected expenditures by department (to be adopted for the next fiscal year and endorsed or estimated for future years).
- Summary of funding sources to pay for the projects (to be adopted for the next fiscal year and endorsed or estimated for future years).
- Impact of the implementation of CIP projects on the operating budget.
- Description of funded projects. This information is normally included in the overall narrative if the CIP does not include a narrative for each department section.

The narrative of the transportation department section may not be present in all CIPs, particularly in the CIPs of small communities. If it exists, the transportation department section normally includes the following contents:

- Department mission, vision, values (e.g., equity, safety, mobility, sustainability, livability, excellence), and priorities.

- Summary of transportation assets.
- Objective of the transportation department.
- Relationship among projects.
- Summary of key areas for improvement, including costs (e.g., street paving and resurfacing, pedestrian master plan investments, bicycle master plan investments, transit projects, freight projects, bridge and structures projects).
- List of revenue sources and estimated revenues.

2.2.2 Prioritized List of Projects and Cost Estimates

The prioritization of projects to be included in a CIP is a critical step in the capital improvement programming process. The CIP should be consistent with the comprehensive plan's land use policies and infrastructure recommendations. In practice, however, with comprehensive plans and local transportation plans becoming more policy-oriented, they rarely identify all the specific projects that may be proposed for a CIP.⁴ In addition, some communities may have comprehensive plans that are out-of-date, or that may still be under preparation or being updated. For this reason, it is becoming common to use prioritization criteria that use a combination of diverse qualitative and quantitative criteria. Some examples of general criteria include public safety, satisfies a critical need, or would be of benefit but not essential. Some examples of criteria used for the transportation component include safety improvements, multimodal benefits, contribution to policy focus areas, connectivity, and stakeholder support. The capital projects with the highest scores are included in the CIP. However, not all CIPs necessarily provide the list of capital projects in order of priority or the score obtained by each project.

The CIP provides costs for all projects for the next 5 to 10 years. The way that project cost information is provided is very similar in all CIPs. Specifically, the CIP provides the costs from life to date (i.e., the costs that have been incurred by each ongoing project in prior years, since the project commencement and through the most recent budget year), costs for the next fiscal year (also called "current year" in some CIPs), and estimated future costs for each capital project. Some of the projects included in the CIPs may have started years ago, some of them will start in the next fiscal year, and others will start in future years. Table in the appendix provides an example of how a project funding summary form is used to present a project's costs in a CIP.

2.2.3 Funding Sources

The CIP mentions the amount of economic resources provided by different funding sources, for each project, from life to date, for the next fiscal year, and for future years. Only funds for the next fiscal year are secured if the recommended capital budget is adopted. Funds for future years are not secured but they can be already allocated, or not, from different funding sources.

In most cases, the funds for a capital project come from a mix of funding sources and financing mechanisms that may include Federal funds, State funds, and local funds (see Table 14). Table 14 in the appendix provides an example of how a project funding summary form is used to present a project's funding sources in a CIP.

2.2.4 Project Detail Form

The project detail form provides the most detailed information about each project included in the CIP. Project detail forms are normally located in the transportation department section. The information contained in each project detail form may vary across communities. However, the most frequent fields in this form are the following:

- Project name and identification: Name and unique number identifying the project.
- Project description: Information about the purpose, scope, and history of the project.
- Project justification: Reasons why the project should be executed and the expected impact.
- Project start/end date, current project stage, and timeline.
- Location: Street address, intersection, or general location of the project. Some CIPs also include other location information, such as the neighborhood district or the council district.
- Total expected project cost.
- Expenditures: Information about how expenditures are distributed among project components (e.g., design, construction, equipment acquisition) from life to date, for next fiscal year, and for future years.
- Funding sources: Amount of funds provided from each funding source from life to date, for next fiscal year, and for future years.
- Secured funding: Portion of the project cost that has committed funding.
- Unsecured funding: Portion of the project cost for which funding sources need to be determined.
- Operations and maintenance costs: Estimated increases or decreases in costs as a result of the execution of the capital project.

Figure 1 shows an excerpt of a project detail form extracted from the CIP of the City of Shoreline, Washington.¹¹ STIPs and TIPs have different requirements, but the basics are very similar.ⁱⁱⁱ

ⁱⁱⁱ Table 16 and Table 17 in the appendix provide complete examples of project detail forms extracted from the CIPs of the City of St. Paul, Minnesota, and the City of Shoreline, Washington, respectively^{38,11}

Figure 1. Project Detail Form Excerpt, City of Shoreline, Washington¹¹



Project Description:

This project will provide mobility and safety improvements to users of the N 175th Street corridor. Planned improvements include reconstruction of the existing street to provide two traffic lanes in each direction, a center lane with two-way left turn areas, medians and turn pockets, bicycle lanes (integrated into the sidewalk), curb, gutter, and sidewalk with planter strip where feasible, illumination, landscaping and retaining walls. Intersections with high accident rates will be improved as part of this as well project. Grant funding of approximately \$3.5 million was awarded in 2016. Preliminary design will begin in late 2018.

Service Impact:

This project will improve the safety and mobility of pedestrians, people with disabilities, transit users and drivers and provide better access to the school, park and ride lot, park and residents located along the corridor.

Changes from the 2018–2023 CIP: Project start delayed until 2018.

Table 6: Project Detail Form Excerpt, City of Shoreline, Washington

N 175TH ST- STONE AVE N to 15 ORGKEY: 2916339 J.L.# ST 269600 PHASE	PRIOR- YRS	2018CB	2018YTD	2018E	2019E	2020E	2021E	2022E	2023E	2024E	6-YEAR Total	TOTAL PROJECT
PROJECT EXPENDITURES:												
1. PROJECT ADMINISTRATION		1,640,000	720	50,000	1,200,000	2,400,000	450,000				4,050,000	4,100,000
2. REAL ESTATE ACQUISITION												
3. CONSTRUCTION												
TOTAL PROJECT EXPENDITURES		1,640,000	720	50,000	1,200,000	2,400,000	450,000				4,050,000	4,100,000
REVENUE SOURCES:												
FEDERAL - STP		1,418,600		43,250	1,038,000	2,076,000	389,250				3,503,250	3,546,500
TRANSPORTATION IMPACT FEES		221,400		6,750	162,000	324,000	60,750				546,750	553,500
TOTAL PROJECT REVENUES		1,640,000	720	50,000	1,200,000	2,400,000	450,000				4,050,000	4,100,000
1% FOR PUBLIC ART ELIGIBLE (Y/N)	ELIGIBLE (Y/N)											
PROJECT TIME LINE:				2018E	2019E	2020E	2021E	2022E	2023E	2024E		
PROJECT ADMINISTRATION				Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4							

2.3 Purpose, Objectives, and Applications of a CIP

2.3.1 Purpose and Objectives

The purpose of a CIP is to connect capital improvement needs with the financial resources available. Capital projects contained in the CIP are selected based on a set of priorities established by the community according to its current and expected financial status. In other words, the purpose of the CIP is to coordinate community planning, financial capacity, and physical development. As a result, the CIP reduces the risk of unnecessary capital expenditures generated by poorly planned approaches.

In general, the main objectives of a CIP are:^{9,1}

1. Implement comprehensive plan goals.
2. Ensure timely construction of new infrastructure, or renovation of existing infrastructure, to provide the level of service standards identified in the comprehensive plan.
3. Identify funding sources for each capital improvement.
4. Provide a baseline (recommended capital budget) for the annual budget.
5. Coordinate capital and operating budgets.
6. Create transparency around the process of selection and funding of capital projects considering public inputs.
7. Inform the public about future needs and capital improvements.

However, for local governments located in metropolitan areas, the pattern of intergovernmental relationships has significant effects on the local CIP process and its objectives. Most metropolitan areas include many separate municipal governments, counties, special districts, and other agencies that build critical facilities and infrastructure, including highways and transit systems. These key facilities can trigger, accelerate, or decelerate the speed and pattern of urban development.⁴ When it comes to metropolitan transportation networks, metropolitan planning organizations have a critical role in coordinating planning and development, and more importantly, the distribution of Federal and State transportation funds for regionally significant projects. As a result, another critical objective of the CIP process is to coordinate its transportation priority projects with those reflected in metropolitan transportation plans and TIPs, to ensure that they are eligible for Federal and State transportation funds and that these funds are available at the time of execution of the project.

2.3.2 Uses – Annual Budgets and Implementation of Medium- and Long-Term Plans

Comprehensive plans establish the guidelines for what a community aims to achieve in the next 20 to 30 years. It is a recommendatory document that defines a community's vision and identifies challenges, solutions, and guidance to implement this vision. On the other hand, transportation plans identify the location and type of transportation facilities that are needed to meet projected long-term growth within the community over the next 10 to 20 years. Some examples of mode-specific plans are regional transportation plans, multimodal plans, bicycle or pedestrian plans, or streets master plans. All transportation plans should follow the guidelines established by general and comprehensive plans.

Comprehensive plans and local transportation plans do not provide a list of projects to be executed within a certain timeframe and a fiscally constrained budget. Therefore, they rely on other tools for their implementation. In this regard, the CIP is a planning and fiscal management tool available for local governments for the implementation of comprehensive and transportation plans. The CIP should be consistent with the policies and infrastructure recommendations defined by these plans. In fact, major new improvements in the CIP that are not reflected in comprehensive and transportation plans should be preceded by an update of these plans.

As noted earlier, the CIP also is used as a tool to identify capital needs in advance so the projects that are expected to rely on State or Federal transportation funds are also reflected in metropolitan and regional planning documents. Section 3.1 discusses in more detail the relationship between the CIP and metropolitan or regional planning documents.

Finally, the CIP is also used in the development of the annual budget of the local government. The annual budget has two elements—a capital budget and an operating budget. As mentioned earlier in this section, the first year of a CIP becomes the recommended capital budget for the next fiscal year. Moreover, the CIP frequently provides an estimation of the impact that the execution of each capital project will have on the operating budget. This fiscal information will be incorporated in the process of reviewing and adopting the annual budget.

2.4 Legal Framework

State and local laws, rather than Federal laws, govern the adoption and implementation of a CIP. Not all local governments are required by State law to adopt a CIP. Most local governments choose to adopt one because of its significant benefits as a planning and financial management tool. Nevertheless, the State statutory framework for adopting a CIP will be relevant for some communities that may want to consider the use of value capture as a funding source. More specifically, some States do require the adoption of a CIP before local governments are allowed to assess an impact fee, and some statutory frameworks are very specific as to how impact fees are to be estimated in the context of the CIP. The paragraphs that follow summarize the statutory framework for the adoption of CIPs by local governments across several States, and describe some of the common legal requirements for CIPs that some States have with regard to the use of impact fees as a funding source.

2.4.1 State Statutory Authority for Local Governments to Adopt a CIP

The legal framework and authority governing the development and adoption of a CIP by local governments are generally found in State laws dealing with local government planning and budgeting. As a result, the requirement to adopt a CIP varies widely from State to State, ranging from not requiring one from local governments in some States, to explicitly or implicitly requiring local governments to adopt a CIP under certain circumstances.

This is illustrated by the following examples:

- Oklahoma encourages (but does not require) all local government units to adopt a CIP.^{iv}
- In New Hampshire municipalities where the planning board has adopted a master plan, the local governing body may adopt a CIP.^v
- Texas and Oregon only require local governments to adopt a CIP when they intend to assess impact fees (Texas) or system development charges (Oregon) to pay for capital improvements or facility expansions.^{vi,vii}
- Washington State requires local governments with a population above certain levels to implement a comprehensive land use and development plan, which in turn requires a 6-year capital facilities plan.^{viii}
- Tennessee requires counties that want to levy a tax on residential development to pay for the cost of school facilities to adopt a CIP.^{ix}
- Georgia law does not require a CIP, but it requires that all local governments adopt and operate under a project-length balanced budget for each capital project fund.^x

In practice, despite the fact that not all local governments are required by State law to adopt a CIP, many of them do it because of its significant benefits as a planning and financial management tool. The examples listed above also indicate that in States where adopting a CIP is explicitly required (Oregon, Texas, and Washington), the requirement is generally connected to indicators of development, population, or urbanization within the local government jurisdiction. The more developed and urbanized a jurisdiction is, the larger the cost and complexity of the capital projects that it requires to serve its population, and the stronger the need to borrow money and repay it over several years. Having a CIP is a vital tool for local governments that are required to plan and deliver on large, multiyear capital investments, while meeting balanced budget requirements that demand strict fiscal and budgetary discipline.

^{iv} 62 OK Stat § 62-912 (2019).

^v NH Rev Stat § 674:5 (2019).

^{vi} Texas law uses the term *Capital Improvements Plan* instead of Capital Improvement Program. TX Local Govt Code Ch. 395 (2019).

^{vii} OR Rev Stat § 223.309 (2019).

^{viii} The population levels of local governments for which a comprehensive plan is required include counties that have both a population of 50,000 or more and whose population has increased by more than 17 percent in the previous 10 years, and the cities located within such a county; and any other county regardless of its population that has had its population increased by more than 20 percent in the previous 10 years, and the cities located within such a county. WA Rev Code § 36.70A.040 – 36.70A.070 (2019), and WA Admin Code 365-196-415.

^{ix} TN Code § 67-4-2901 – 67-4-2913 (2019).

^x GA Code § 36-81-3 (2019).

2.4.2 What Are the Common Legal Requirements for a CIP?

As noted in the previous section, not all States require local governments to adopt a CIP. In those States that require a CIP from local governments, the statutory requirements that the program must meet vary significantly in the level of detail and the parts of the CIP process or program content they address, as illustrated in Table 6.

For most local governments, the detailed legal requirements for adopting a CIP are laid out in their local ordinances, which provide additional direction to the CIP process and the contents of the program. Although the legal requirements governing the CIP process and the contents of a CIP are community specific, they generally conform to the content elements listed earlier in Section 2.2 of this chapter and to the process described in Chapter 3.

Table 7: Select CIP State Statutory Requirements Highlights (TN, TX, OR, and WA)

State	Select CIP State Statutory Requirements
Tennessee ^{xi}	<ul style="list-style-type: none"> • The CIP must include a proposed schedule of future capital projects, listed in order of construction priority, together with cost estimates and the anticipated means of financing each project requiring the expenditure of public funds, over and above the annual local government operating expenses, for the purchase, construction, or replacement of physical assets.
Texas ^{xii}	<ul style="list-style-type: none"> • A local government that chooses to enact an impact fee must adopt a CIP. • Must use qualified professionals to prepare the CIP. • The CIP must contain specific enumeration of the following: <ol style="list-style-type: none"> 1) A description of the existing capital improvements within the service area and costs to upgrade, update, improve, expand, or replace them to meet existing needs and usage, and stricter safety, efficiency, environmental, or regulatory standards prepared by a qualified professional engineer licensed in Texas. 2) An analysis of total capacity, the level of current usage, and commitments for usage of capacity of the existing improvements, prepared by a qualified professional engineer licensed in Texas. 3) A description of the capital improvements or facility expansions and their costs necessitated by and attributable to new development based on approved land use assumptions, prepared by a qualified professional engineer licensed in Texas. 4) A table establishing the level or quantity of use, consumption, generation, or discharge of a service unit for each category of capital improvements or facility expansions, and a conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, and industrial. 5) The total number of projected service units necessitated by and attributable to new development based on approved land use assumptions and calculated in accordance with generally accepted engineering or planning criteria.

^{xi} TN Code § 67-4-2901 – 67-4-2913 (2019).

^{xii} Texas law uses the term *Capital Improvements Plan* instead of Capital Improvement Program. TX Local Govt Code Ch. 395 (2019).

State	Select CIP State Statutory Requirements
	6) The projected demand for capital improvements or facility expansions required by new service units projected over a reasonable period of time, not to exceed 10 years. 7) A plan for awarding credits for future property tax and utility service revenue generated by new service units during the CIP period.
Oregon ^{xiii}	<ul style="list-style-type: none"> • A local government that chooses to establish a system development charge shall prepare a capital improvement plan, public facilities plan, master plan, or comparable plan that includes a list of capital improvements that the local government intends to fund with improvement fee revenues and the estimated cost, timing, and percentage of costs eligible to be funded by the improvement fee for each improvement. • If a system development charge will be increased by a proposed modification of the list to include a capacity-increasing capital improvement, the local government shall provide a 30-day notice of the proposed modification to the persons who have requested written notice. • The local government shall hold a public hearing if it receives a written request for a hearing within 7 days of the date the proposed modification is scheduled for adoption. • A public hearing is not required if a written request is not received.
Washington ^{xiv}	<ul style="list-style-type: none"> • The capital facilities element of a comprehensive plan must include the following: <ol style="list-style-type: none"> 1) An inventory of existing capital facilities, including the location and capacity of each facility. 2) A forecast of future capital facility needs. 3) A 6-year capital plan for financing and a forecast of projected funding capacities based on the revenues available. • The local government must update the plan biennially so that financial planning remains sufficiently ahead of the present needs.

2.5 Common Value Capture Techniques Used for Transportation Improvements

The value capture techniques most commonly used as funding sources in CIPs are impact fees, special assessments, transportation utility fees, and tax increment financing. The following paragraphs briefly describe each of these value capture techniques.¹⁰

2.5.1 Impact Fees

Impact fees (also known as system development charges) are a one-time charge to developers to help pay for existing or new transportation infrastructure that will serve new developments. Impact fees are funding sources that allow local governments to obtain funds before the execution of the project starts. Generally, impact fees are a requirement for developers to obtain the obligatory permits to start the development of a new area. In general, impact fees face no public resistance since they do not affect

^{xiii} TN Code § 67-4-2901 – 67-4-2913 (2019).

^{xiv} Texas law uses the term *Capital Improvements Plan* instead of Capital Improvement Program. TX Local Govt Code Ch. 395 (2019).

taxpayers directly, although they may face developer resistance. The development and adoption of a CIP is a requirement to use impact fees in some States, such as Texas and Oregon.

2.5.2 Special Assessments

Special assessments are fees and taxes charged to property owners located within a designated area or district to pay for capital improvements that benefit the district. Special assessments have the potential for generating high revenues over the years. However, these revenues are not available immediately, and are instead collected over time. That is why some local governments use special assessments as backing for financing mechanisms to obtain immediate funds to pay for the improvements. Special assessments may face public resistance since they involve new taxes and fees for real property owners in a district. Road districts, public improvement districts, and parking benefit districts are some examples of special assessments used to fund transportation projects.

2.5.3 Transportation Utility Fees

Transportation utility fees (TUFs) are primarily used by local governments to fund roadway operation and maintenance activities that extend the service life of the infrastructure, saving the taxpayers' money. TUFs are also called street maintenance fees, roadway maintenance fees, transportation maintenance fees, transportation user fees, or street utility fees. In general, the revenue potential of TUFs is low. However, it is often enough to fund roadway operation and maintenance activities. TUFs may face certain public resistance since they involve new fees for residents or property owners.

2.5.4 Tax Increment Financing

Tax increment financing (TIF) is a value capture technique that captures some or all of the incremental property value increase attributed to a capital improvement implemented in a certain area to fund the cost of this improvement. TIF has the potential for generating high revenues over the years. However, just like special assessments, these revenues are not available immediately, and are instead collected over time. That is why some local governments use TIFs as backing for financing mechanisms to obtain immediate funds to pay for the improvements, while others use the funds on a pay-as-you-go basis. In general, TIF faces little public resistance since it does not involve additional taxes.

CHAPTER 3. IMPLEMENTATION OF A CIP

The implementation of a CIP can be divided into two major steps. The first is the development of the program, and the second is its administration. Together, these two steps constitute the capital improvement programming process. As noted in the introduction, the CIP is a powerful tool in the implementation of a community's comprehensive plan.^{xv}

The CIP coordinates a community's plans with its financial capacity and the development of its physical infrastructure to provide a blueprint for planning the community's capital expenditures.⁹ This coordination requires the implementation of a CIP that complements a community's existing comprehensive plans, as well as other subordinate system-specific plans that a community may have, such as a transportation or mobility plan. In the case of transportation, it is imperative that a community's plans and CIPs are well coordinated with relevant metropolitan or regional transportation plans and programs to ensure eligibility for State and Federal funding sources for its projects. These different plans and programs are the essential guiding documents that should be considered in the implementation of a CIP.

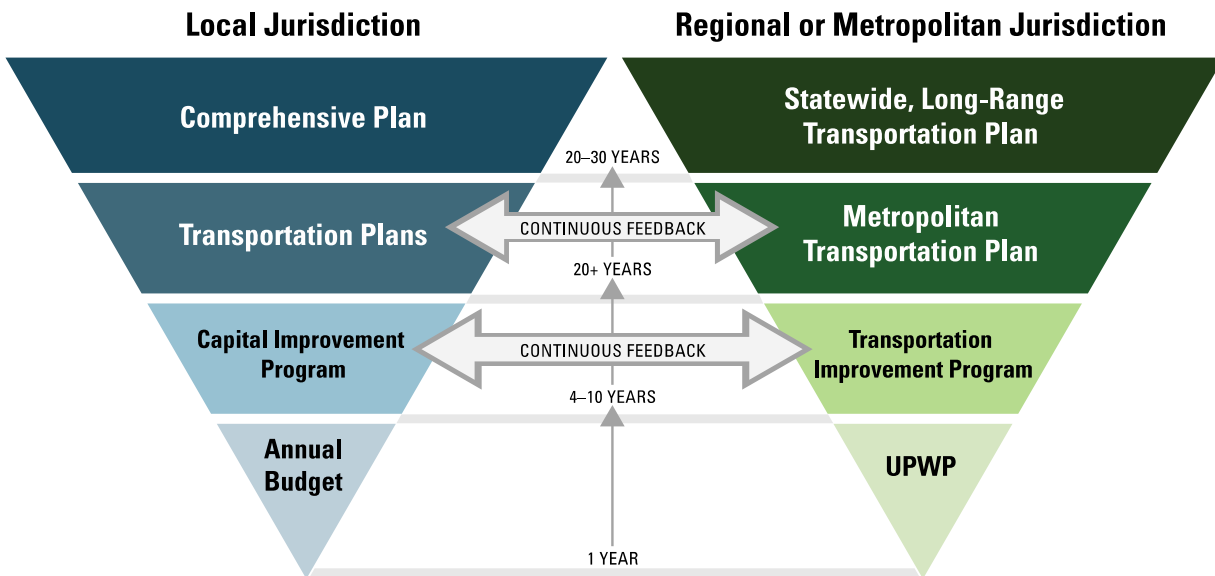
This chapter reviews these interrelated guiding documents, highlighting their influence on the implementation of a community's CIP. This chapter also provides an overview of the development and administration processes involved in the implementation of a CIP, and an overview of the timing of preparing a CIP vis-à-vis the local government's annual budget process.

3.1 Guiding Documents

A review of the various guiding documents is critical to ensuring that the CIP considers projects that are aligned with adopted plans (and avoids projects that may contradict them) and to properly identify funding sources and constraints. This section identifies these guiding documents and discusses their characteristics, interrelationships, and their relationship with the CIP. Figure 2 shows these documents using a vertical and a horizontal scale, with a focus on the transportation element guiding documents. The vertical scale consists of four levels and illustrates the top-down, general to specific influence of the different guiding documents on one another, and on the CIP. Horizontally, the scale consists of two levels—the local jurisdiction level and the regional or metropolitan level. Figure 2 illustrates the interrelationships between a local jurisdiction's guiding documents and counterpart regional or metropolitan transportation plans and documents, and their combined influence on the development of the CIP.

^{xv} Depending on the jurisdiction, comprehensive plans are also known as master plans, general plans, and more recently, strategic plans.⁶

Figure 2. CIP Guiding Documents



Comprehensive plans are developed by local governments. They provide guidance and recommendations to achieve the community vision of the region over the next 20 to 30 years. Comprehensive plans are often divided into elements, with transportation being one of them. At the second level of the local guiding documents scale, some communities have a local transportation plan. Local transportation plans typically share a vision for a horizon of 20 years or more focused on a transportation mode (e.g., bicycle, transit, freight, multimodal) or in a specific location (e.g., a district or a neighborhood), and they are not required to be fiscally constrained. The CIP and its transportation element sit below these documents at the third level of the local document scale. The CIP supports the implementation of the comprehensive and local transportation plans by means of a prioritized list of transportation projects for the community over a period of 5 to 10 years. The CIP, in turn, is used to develop a recommended capital budget. Capital costs in the first (or current) year of the CIP become the recommended annual capital budget to be adopted by the local government. The CIP also contains information regarding the impact of capital projects on the operating budget. This information, in turn, is used along with the capital costs to develop the annual budget.

At the regional or metropolitan level, transportation guiding documents are governed by Federal regulations and have a structure that has some parallels with the local guiding documents, as shown in Figure 1.^{xvi} These guiding documents are critical to the development of the CIP in that the eligibility of its transportation projects for State and Federal transportation funding sources is tied to the projects being

part of the adopted regional plans. At the top level of the regional structure are the statewide long-range transportation plans (SLRTPs), which are developed by State departments of transportation (DOTs). At the second level in the vertical scale, in urban areas with a population of 50,000 or more and that are

^{xvi} Regional or metropolitan level guiding documents are governed by 23 Code of Federal Regulations (CFR) Part 450, Planning Assistance and Standards.

included in a planning area of a metropolitan planning organization (MPO), are the metropolitan transportation plans (MTPs).^{xvii} MTPs are developed and adopted by MPOs and consist of a set of long-range and short-range strategies that allow the development of an integrated and intermodal transportation system in a metropolitan region. MTPs have a time horizon of at least 20 years and are required by Federal law to be fiscally constrained.^{xviii} Similarly, areas with a population of less than 50,000 where a regional transportation planning organization (RTPO) has been designated have a regional long-range transportation plan (LRTP) that plays the same role as the MTP as a guiding document for local communities to develop their CIP. The MTPs and regional LRTPs are consolidated by each State DOT into the SLRTP.

At the third level of regional guiding documents are the TIPs developed and adopted by MPOs, RTPOs, and State DOTs. These TIPs are consolidated at the State level by the State DOT into an STIP. Similar to the role that a CIP plays at the local level, a TIP allows the implementation of an MTP (or a regional LRTP) by means of a prioritized list of transportation projects. TIPs and STIPs cover a period of 4 years at a minimum and must be updated at least every 4 years.

Finally, at the fourth level is the Unified Planning Work Program (UPWP), which identifies work proposed for the next 1- or 2-year period, indicating which entity (i.e., MPO, State DOT, public transportation operator, local government, or consultant) will perform the work, create a schedule, propose funding, and provide a summary of amounts and sources of Federal and matching funds. It is critical for a local government that the development of its CIP is closely coordinated with the regional planning processes and documents, particularly the TIP, and subsequently for the local annual budget to be synchronized with the UPWP. This will help ensure that the CIP transportation projects that are expected to rely on State or Federal transportation funds are indeed reflected in the regional guiding documents, so the local government is eligible to access those funds exactly when they need them. This is illustrated in Figure 1 which shows the continuous feedback processes between a local government's CIP and its corresponding metropolitan (or regional) TIP, and between the local transportation plans (if and when they exist) and the regional long-range planning documents (i.e., the MTP or the regional LRTP).

In addition to the local and regional guiding documents, there may be other relevant documents, such as corridor or project-specific studies (e.g., economic development and value capture studies, traffic and revenue analyses), and other funding and financial documentation that may inform the development of the CIP.

3.2 Development of a CIP

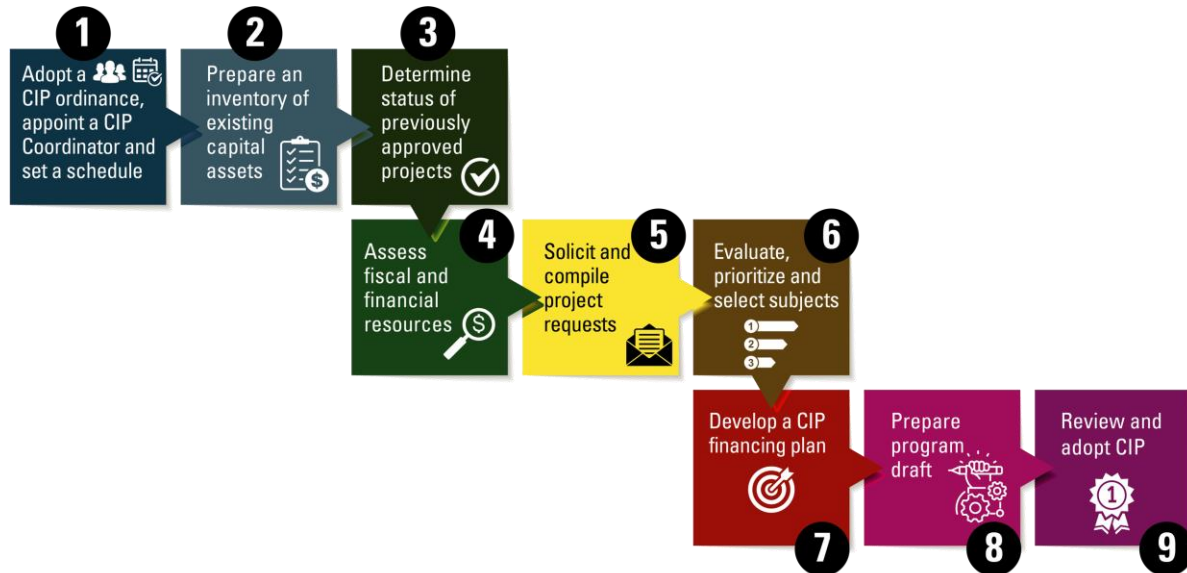
While the details vary from jurisdiction to jurisdiction based on State and local laws, the process of developing of a CIP can be divided into nine sequential steps and is illustrated in Figure 3Figure . Having a thorough understanding of the local government's CIP internal and external stakeholders is crucial in each step of this process. It is crucial to understand stakeholders' needs, priorities, and the resources

^{xvii} For local governments in areas with a population of less than 50,000, the applicable long-range transportation planning guiding document is the statewide long-range transportation plan.

^{xviii} According to Federal transportation planning and programming regulations (23 CFR Part 450), a transportation plan or program demonstrates constraint by "including sufficient financial information to confirm that projects in those documents can be implemented using committed or available revenue sources, with reasonable assurance that the federally supported transportation system is being adequately operated and maintained."

they may be able to contribute toward the process.^{xix} The steps in the process and their descriptions have been adapted from the Massachusetts Department of Revenue's *Capital Improvement Planning Guide*⁹ and are described in the paragraphs that follow.

Figure 3. CIP Development Process [adapted from⁹]



3.2.1 Adopting a CIP Ordinance, Appointing a CIP Coordinator, and Setting a Schedule

When a CIP is adopted for the first time by a local government, the first step in the process typically includes creating the local legal framework for the adoption of the CIP and establishing roles and responsibilities for its development. This includes the local government governing body adopting an ordinance or bylaw requiring the adoption of a CIP and empowering a CIP coordinator to manage its development. In most cases, State law does not require local governments to adopt a CIP, so it is important for local governments to create a local framework for its adoption and continued use.

Once the legal framework has been adopted, a CIP coordinator is appointed. The CIP coordinator position is generally occupied by a local government official (e.g., mayor, council or village president, manager, administrator) or a staff member in the department of planning, public works, or finance. The CIP coordinator may be supported by a group of local government staff (or a consultant). The CIP coordinator often works with a CIP planning board or a CIP advisory committee that may consist of local officials, citizens, or key departmental staff.

^{xix} Internal stakeholders include, but may not be limited to, the local government's constituents and governing body, its different department heads, and the staff in each of these departments. From the transportation component standpoint, the community's external stakeholders would include, among others, Federal agencies (e.g., Federal Highway Administration, Federal Transit Administration, U.S. Environmental Protection Agency), State agencies (State DOT and State environmental agencies), and regional planning bodies (e.g., the MPO).

Each year, the CIP coordinator establishes a schedule for all local officials with specific deadlines for completing each step of the CIP development process. Ideally, the schedule allows sufficient time to complete reviews and to present recommendations to the local government's governing body.

3.2.2 Preparing an Inventory of Existing Capital Assets

Developing a comprehensive inventory of all local government property, assets, and fleet is of critical importance in developing a CIP. The inventory ideally includes all buildings, fleet, equipment, utilities, roads and streets, and sewers, and for each asset, the date when it was built, acquired, or last improved; the original cost; current condition; expected useful life; depreciated value; extent of use; and any scheduled replacement or expansion dates. This may be challenging for extensive road and street asset networks if an asset management system or pavement management system is not already in place and frequently updated. As a starting point, some information for completing this step may be found in the local government's accounting and management systems. However, the CIP coordinator also might solicit detailed asset information from each department head for the most complete and up-to-date information. The head of the department developing the transportation component of the CIP might consider reaching out to its MPO or State DOT to inquire about asset management plans maintained by these agencies, which may have transportation asset information relevant to the local network that could assist in this task.

3.2.3 Determining the Status of Previously Approved Projects

This step involves reviewing the capital projects that the local government already has underway to evaluate whether additional funds are needed and to determine the amount of unspent funds that may be available from completed or discontinued projects. This step also allows local officials involved in the budget process to stay informed of the progress of projects approved in prior years.

3.2.4 Assessing Fiscal and Financial Resources

In this step, the local government's finance office analyzes the local government's fiscal condition by assessing recent trends and projections of revenues and expenditures, including debt and other liabilities. This analysis allows local government officials and its governing body to assess the implications for setting fiscal policies (e.g., setting tax rates and assessing debt capacity) and helps the CIP coordinator propose a CIP with a funding source schedule designed to meet the community's fiscal policies and financial constraints.

3.2.5 Soliciting and Compiling Project Requests

Next, the CIP coordinator usually solicits capital improvement project requests from all local agencies and departments ranked in order of priority. In most cases, two different project request forms are used for each CIP capital improvement submission. The first one is the **project cost summary form**, which provides the costs to date for projects underway, costs for the next fiscal year, and estimated future costs for each capital improvement (see the example in Table 12 in the appendix). On the other hand, the **project detail form** provides comprehensive information on the capital improvement request. For more details about the contents provided by the project detail form, refer to Section 2.2.4 of this document, and to the examples in Figures 10 and 11 in the appendix. If the project is selected, the final version of these two forms will be included in the draft CIP. The project detail form and the project cost summary form will help ensure that all capital improvements identified are properly justified and characterized in terms of implementation schedule, cost, impact on the operating budget, and anticipated sources of funding.

3.2.6 Evaluating, Prioritizing, and Selecting Projects

In this step, the CIP coordinator convenes several meetings that typically include the local government's managerial leadership (e.g., planning director, public works director, finance director, local government manager, mayor) to review, discuss, and critique the project proposals received. In communities that have a CIP planning board or CIP advisory committee, similar meetings and discussions may take place. It is critical to secure citizens' participation at some point in this step. Generally, the CIP planning board is responsible for obtaining citizens' participation in the CIP process through hearings. However, some local governments prefer to establish a citizens' advisory panel to incorporate the public's perspective. The objective of this step is to put together a draft CIP that is consistent with official plans and policies, contains projects that are supportive of the community's development objectives, and can be submitted for the approval of the local government's governing body. More specifically, proposed transportation projects are reviewed for consistency with comprehensive and transportation plans, technical feasibility, proposed costs and funding sources, schedules, and project readiness, and coordinated with other appropriate projects. At this juncture, the CIP coordinator (or the CIP planning board) may request clarification of certain aspects of a particular project from the agencies or departments that submitted it. Sometimes the CIP coordinator (or CIP planning board) may recommend excluding or postponing a project request and may communicate such recommendations to the agencies or local government departments involved, along with the reasons that supported the recommendation.

Next is the setting of priorities and ranking of project proposals, which is one of the most difficult but crucial tasks in the CIP development process. Generally, projects are prioritized using a scoring system based on established criteria to assess project readiness and the value that each project brings to the community. A CIP may have different scoring systems for different types of projects (e.g., one for roadway projects and another for sewer projects). Sometimes the CIP coordinator may convene a scenario-based workshop with the local government's managerial leadership and the planning board to jointly analyze different priority project combinations and to select one that best meets community goals. These systems provide a uniform structure for evaluating capital improvements. Table 12 in the appendix shows an example of the scoring system used by Vanderburgh County (Indiana) for evaluating roadway infrastructure projects.¹²

However, scoring systems are not designed to replace professional or political judgment. Certain projects may rank low according to the scoring system, but they may still be included in the draft CIP as a result of a specific need or resource availability. For example, projects receiving a low score because they do not contribute to policy areas but are critically needed (such as replacing a very old bridge) can be elevated in the ranking based on needs and resources.

This step results in a list of projects selected to be included in the draft CIP in order of priority.

3.2.7 Developing a CIP Financing Plan

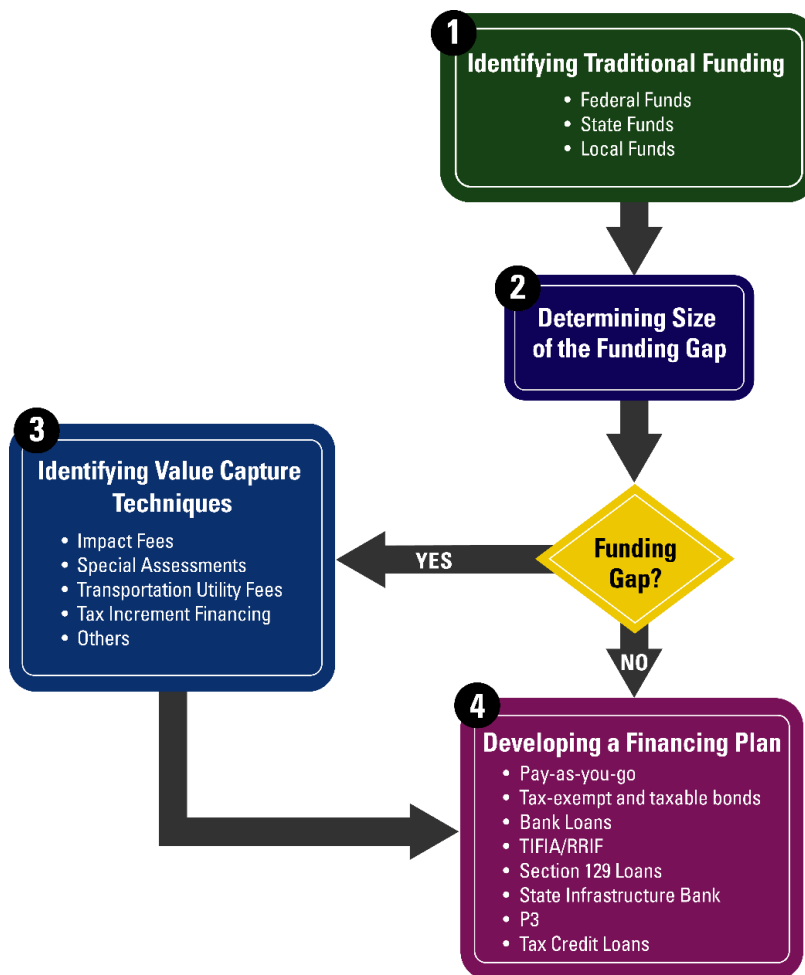
The objective of this step is to recommend a method to fund each project based on the policies and constraints identified in the assessment of fiscal and financial resources. There are numerous funding sources and financing mechanisms that may be used to pay for local capital projects. These were discussed in detail in Chapter 1, and include current revenue (e.g., general taxation, fees), debt instruments (e.g., general obligation and revenue bonds), State and Federal grants, and what is known as value capture techniques (e.g., tax increment financing, special districts and special assessments).

During this step, the feasibility of using different funding sources and financing mechanisms is evaluated for each project selected. In general, municipal debt is one of the most common sources for very costly capital projects. Bonds are issued for periods ranging from 5 to 30 years, over the course of which principal and interest are paid. Paying back debt over time has the advantage of allowing the amortization of the capital project over the life of the asset. For smaller capital projects, communities often use current revenue available in a given year. Finally, for certain projects, communities can seek capital funding from programs and grants offered by State and Federal governments. Transportation projects fall into this category. Local circumstances may impact the cost and potential funding sources for a project. For example, in locations where flood control is a significant issue, a local government's transportation improvements may be more costly; however, if flood control infrastructure is managed by a separate local government unit with its own funding sources, both local government units have an opportunity to leverage one another's funds on projects of mutual interest. Identifying all of these opportunities to leverage different funding sources is critical for CIP coordinators.

State and Federal transportation funds and grants have traditionally been a major funding source for the largest and most significant transportation improvements in communities across the country. However, three factors are increasing the adoption of innovative funding and financing techniques by State and local governments. The first is that Federal transportation funds can be used on only about a quarter of public roads, leaving more than 3 million miles of roads, especially local roads, without any access to Federal-aid highway funding.¹³ The second factor is that the growth in local transportation needs has outpaced the availability of traditional State and Federal funding sources.¹⁴ Finally, the third is that Federal funding and revenue targets that local governments, MPOs, and State DOTs rely on when preparing their CIPs, TIPs, and STIPs have become less predictable due to short-term Federal budget appropriations, extensions, and continuing resolutions.¹⁵ It is in this context that innovations such as the use of value capture techniques are increasingly playing a pivotal role in helping communities raise local transportation funds to reduce funding gaps and increase funding certainty for critically needed projects.

Figure 3 illustrates the typical process used to identify transportation funding sources and develop the financing plan for a CIP's transportation component. The process starts with the identification of traditional transportation funding sources available for each capital improvement selected. This may involve discussing opportunities to leverage funds with other local agencies (e.g., a flood control district) for common priority projects. Next, the CIP coordinator compares the funding available from traditional sources with the funding needed by the proposed projects to estimate the funding gap. The CIP coordinator may then consider incorporating value capture techniques to help secure additional funding and narrow the gap as much as possible. Once traditional funding sources and value capture techniques are identified, the CIP coordinator reviews all financing mechanisms available and develops the financing plan. Developing a financing plan that effectively uses value capture benefits from the CIP coordinator having a realistic understanding of the timing when revenue from the value capture techniques is needed, and when the revenue can actually be accounted for in the CIP. Each technique will have different timing and process requirements before revenue becomes available (e.g., feasibility studies, hearings, approvals), which will impact when funding can be incorporated into the CIP financing plan.

Figure 4. Developing a CIP Financing Plan



3.2.8 Preparation of the Program Draft

The next step is usually the preparation of the draft CIP by the CIP coordinator. The draft CIP includes a prioritized list of projects with their schedule and cost estimates, funding sources, and detailed project information (e.g., project description and justification, photos, maps). The draft CIP consists of the four elements described in Section 2.2. These elements are (1) narrative, (2) prioritized list of projects and costs estimates, (3) funding and financing sources, and (4) project detail forms. The final draft CIP and the recommended capital budget is submitted to the governing body for its review and adoption. In communities that have a CIP planning board, they may have to review the draft CIP before recommending it for submission to the local governing body for adoption.

3.2.9 Review and Adoption of the CIP

The last step in the CIP development process is the review and adoption of the draft CIP and capital budget by the local governing body. The governing body typically reviews all recommended projects included in the draft CIP and, in particular, the projects listed for the next fiscal year that should be

accounted for when developing the annual budget. Projects and capital equipment purchases that are included for the first time in the CIP also need special attention. In addition, ongoing projects that incur delays and higher costs than that originally estimated should be expected to be reviewed in depth. Finally, the governing body will likely pay additional attention to projects that are moved forward several years within the CIP time horizon.

In this step, the public and representatives of public groups and organizations will likely have the opportunity to review the CIP projects at public hearings. Once the review has been completed, the governing body makes the pertinent revisions and changes to the draft CIP and the capital improvement budget. Finally, the resulting CIP and capital budget are adopted.

3.3 Administration of a CIP

The process of administering a CIP can be divided into two major steps—executing the approved CIP and updating the CIP.

3.3.1 Executing the Approved CIP

Once the governing body adopts the capital budget and the fiscal year begins, local government departments are authorized to commence implementation of the projects. However, they will need to coordinate the purchasing of equipment or services in advance with the department of finance or budget to confirm that the funds are available at that time.

The execution of transportation capital improvements involves a set of actions that can be grouped into the following categories: planning and community engagement, environmental, right-of-way, design, and construction. Each of these actions has an inherent level of uncertainty. In the case of major transportation infrastructure projects, planning and community engagement actions may require more than 1 year. Dealing with utilities and right-of-way coordination may be challenging and time consuming, particularly when dealing with various entities (e.g., power and telecommunications). Certain capital projects are also required to complete a set of environmental processes before construction begins. In addition, the need for acquiring land for right-of-way adds more complexity and uncertainty to the execution of capital improvement projects. Finally, the actions under the design and construction categories warrant close monitoring to detect any design errors and construction problems that would impact the capital improvement budget and schedule.

The CIP is a powerful tool for coordinating all of these actions and it helps ensure that the capital improvement is executed on schedule and within the budget. If the CIP is the only tool used to monitor the execution of the capital improvements, it is critical to review it annually. There are other procedures for monitoring the execution of capital improvements, depending on State laws, the local CIP ordinance, or other local ordinances. For example, local governments may require the department, agency, or organization authorized to execute the capital improvement to submit reports on a regular basis to the administrative body in charge of monitoring the execution.⁹ By monitoring the execution of capital projects, local governments are able to identify such issues as major problems (e.g., structural failure, accident) and changes in the schedule and costs.

3.3.2 Updating the CIP

It is important to update the CIP periodically. Most communities do it every year, while others do it on a biennial basis. Updating the CIP involves repeating steps 2 through 9 of the CIP development process, shown in Figure , to reflect new information, policies, and proposed projects. The CIP coordinator typically reviews the entire program, as necessary, to ensure that changes in community needs and fiscal policies are accounted for, and that new uncommitted funding sources are allocated. The periodic review and update of the CIP will also ensure that cost and funding amounts for the current and future years are also updated.

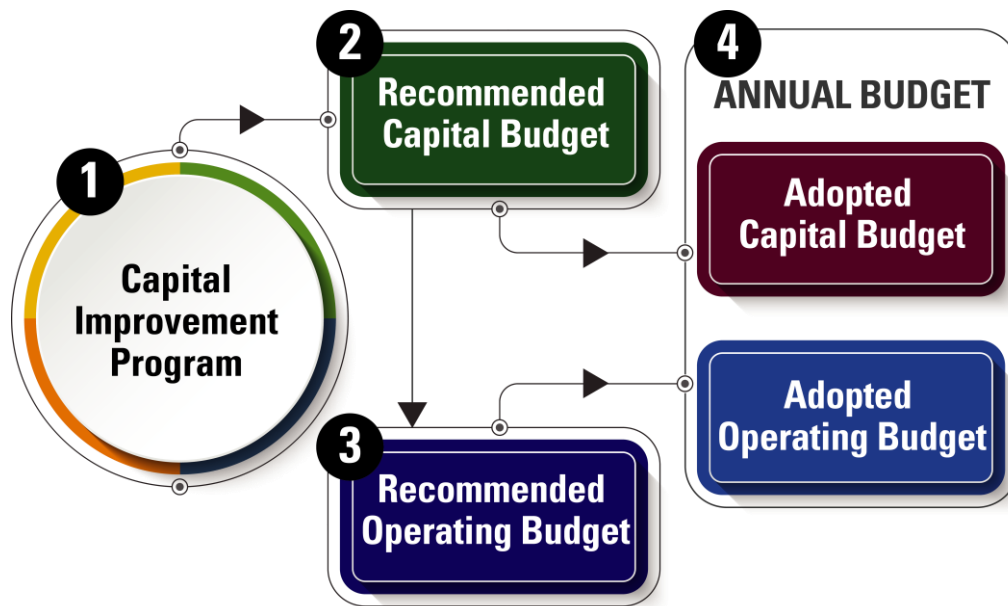
Certain local governments may review the CIP only when major capital improvements are needed. However, this practice significantly reduces the usefulness of the CIP as a fiscal planning tool and reduces the chances of accessing certain funding sources and grants that require time and planning to be secured. Moreover, this practice limits the capabilities of the CIP as a tool to monitor ongoing projects in terms of schedule, costs, and financial status.

3.4 Timing of CIP Preparation vs. the Annual Budget Process

In terms of the timing of preparation, local governments may find it desirable to prepare the CIP and the annual budget at the same time. However, the preparation of the CIP and the annual budget require significant work and sometimes it is not possible to perform both processes at the same time. In these instances, local governments may prefer to complete the annual budget process before developing or updating the CIP. The paragraphs that follow discuss the relationships between the CIP and the annual budget in terms of timing and content.

A capital cost is defined as each individual outlay of a capital expenditure. For example, for the construction of a bridge, the cost of designing it or of acquiring the land where the bridge will be located are capital costs. Capital costs during the first year of the CIP become the recommended capital budget. However, the recommended capital budget is not legally binding. It only provides recommendations for developing the adopted capital budget (see Figure 5).

Figure 5. Annual Budget Structure



Some of the capital costs contemplated in the recommended capital budget are transferred to the recommended operating budget, as indicated by the arrows in Figure 4. This is the case of capital expenditures that are funded using financing mechanisms that involve debt. The debt service then becomes an operating expenditure that should be included in the recommended operating budget. Adopted capital and operating budgets are the two main elements of the annual budget.

In addition to debt service, capital expenditures may affect the operating budget in terms of maintenance costs and cost of personal services. In other words, certain capital improvements can increase or decrease operating expenditures. For instance, the replacement of an old bridge that requires frequent maintenance work for a new one would decrease operating expenses for future years. On the other hand, the construction of a new corridor to serve a new development will be translated into new operating expenditures. Therefore, it is highly beneficial to evaluate the operating expenditures associated to each capital improvement during the CIP process.

CHAPTER 4. OPPORTUNITIES AND CHALLENGES OF A CIP

Implementing a CIP allows a community to adopt an orderly and systematic planning approach for the acquisition, financing, and use of capital improvements. This approach affords communities with opportunities to ensure that the program reflects their needs and priorities, and enjoys support not only from elected leaders, but also from the public at large. In addition to opportunities, there are also challenges associated with implementing a CIP, particularly for communities that do it for the first time. However, the benefits associated with the opportunities clearly outweigh the costs of overcoming the challenges. This chapter summarizes some of the most significant opportunities and challenges associated with implementing a CIP in three implementation areas: public and political acceptance, equity, and cost and administration.^{xx}

4.1 Public and Political Acceptance

The public's perception of the CIP process depends largely on its transparency and the opportunities for the public to provide input to ensure that the CIP reflects the community's needs and priorities. Fortunately, the CIP is, by design, a tool that includes multiple opportunities to keep the public informed about future public improvements and involve them in the process of identifying and prioritizing them. This feature of the CIP process provides certainty not only for local residents, but also for business owners, developers, and bond investors regarding the vitality of the community, the cost of services, and the sustainability of its tax burden.

Implementing a CIP can also be considered beneficial from the standpoint of helping generate political support from elected officials. The CIP's systematic and rational approach to identify and prioritize public improvements helps reduce pressure on elected officials when implementing projects that are not highly ranked by providing them with a solid basis to defend the priorities in the program. In addition, a CIP can help maintain steady payments and tax rates over a period of time. However, there are also potential political acceptance challenges in implementing a CIP. More specifically, it is possible to find elected officials who are uncomfortable sharing control of the process with the public or with other levels of government, and who may shy away from supporting the adoption of a CIP.

4.2 Equity

Implementing a CIP also provides a mechanism to help ensure that capital investment decisions are made considering fairness to all stakeholders in a community in terms of who incurs the costs and consequences of those decisions. This is because the CIP process involves ranking investments based on predetermined, measurable criteria, such as the number of residents served, geographic area served, socioeconomic needs, and project readiness. Ranking projects in this manner can help ensure that capital improvements are strategically located where public needs and priorities are greatest.

^{xx} The three implementation areas have been adapted from the Capital Improvement Plan Report Card approach used by the Center for Land Use Education (CLUE), at the University of Wisconsin, in its Plan Implementation Tool series. While public acceptance refers to the public's positive or negative perception of the tool, political acceptance refers to the elected official's willingness to implement the tool. Equity refers to the fairness to community stakeholders in terms of who incurs the costs and consequences. Finally, while cost refers to the financial or staff resources needed to implement the tool, administration refers to the level of complexity to manage, maintain, and monitor the tool.¹

Some cities have gone a step further and added equity-specific indicators to measure how its CIP allocations are distributed within neighborhoods in their jurisdiction. For example, the City of Baltimore, Maryland, has included race and income indicators and developed a methodology to assess the distribution of current and recent CIP investments, and use the assessment to build a more equitable distribution in future CIPs.¹⁶

4.3 Cost and Administration

Implementing a CIP has both benefits and challenges from a cost standpoint. During the annual capital budget process, individual projects recommended in the approved CIP are funded using a variety of mechanisms, such as property taxes, user and impact fees, special assessments, grants, or bonds. Having a CIP can afford a community financial benefits, such as enhancing their credit rating (and lower borrowing rates), promoting economic development, spotting hidden costs or avoiding unexpected expenditures, and successfully competing for State or Federal funds. The cost challenge that communities may face in implementing a CIP is that it demands a multidisciplinary team skilled in financial management (i.e., budgeting, cost estimation, and forecasting), project management, and public participation.

Managing, maintaining, and monitoring a CIP also poses some administrative challenges; however, implementing projects without a CIP may pose even more challenges. Implementing a CIP, particularly for the first time, requires a considerable amount of effort from local government officials and staff. Over time, the process of updating an existing CIP (or developing a new one) becomes more familiar and less demanding. Incorporating into the process an annual review and the use of standardized tools, such project request forms, can help reduce the administrative burden on local officials and staff. Nevertheless, the effort and time spent may be clearly outweighed by the benefits of having orderly and systematic planning for the acquisition, financing, and use of capital improvements.

CHAPTER 5. CIP – TRANSPORTATION COMPONENT CASE STUDIES

This chapter illustrates how communities of different sizes have used value capture techniques to fund different transportation projects included in their CIPs. Moreover, this section presents how these communities used the CIP as a fiscal planning tool to execute the projects on time and within budget.

Table 8 identifies the four case studies (i.e., projects) included in this chapter and provides the following information fields: community name and the State where it is located, community size, project name, and value capture techniques used to fund the project. In this document, it is assumed that a large community has a population of more than 500,000, a medium community has a population between 100,000 and 499,999, and a small community has a population of fewer than 100,000.

Table 8: Transportation Case Studies

Community Name and Location	Community Size	Project Name	Value Capture Technique
City of Phoenix, AR	Large	Baseline and Loop 202 Intersection	Impact Fees
Fairfax County, VA	Large	Special Assessments: Dulles Corridor Metrorail Project	Special Assessment Districts
City of Hillsboro, OR	Medium	Jackson School Road Project	Transportation Utility Fees and Impact Fees
Town of Horizon, TX	Small	Eastlake Boulevard Extension Phase 2	Tax Increment Financing

The following sections provide relevant information on each project. Specifically, each section provides some background information on the project and how the project was funded or financed. Moreover, this section discusses the lessons learned by each community.

5.1 Impact Fees: Baseline and Loop 202 Intersection Project – City of Phoenix, Arizona

The Baseline and Loop 202 Intersection Project is an example of how the City of Phoenix, a large size community, uses the impact fees as a complementary funding source to deliver critical projects that satisfy the transportation needs of new developments. The City of Phoenix uses the CIP to ensure that funds from complex funding packages are available when they are needed.

5.1.1 Background

The City of Phoenix, Arizona, had an estimated population of 1.6 million in 2019. The CIP plays a pivotal role in the capital improvement planning process of the City of Phoenix. On one hand, the CIP is used as a tool to implement the Phoenix comprehensive plan, along with the transportation plans. On the other

hand, Phoenix uses the CIP as a fiscal planning tool to keep its budget balanced as mandated by the State of Arizona.¹⁷

The City of Phoenix established the impact fee program in the 1980s for the areas with the fastest growth. At that time, these areas located in northern and southern parts of the city were entirely or mostly undeveloped. Impact fees are charged under the police power (similar to land use controls and associated infrastructure standards). Impact fees must comply with extensive common law precedents or court cases and a State statute, so credit must be provided for developer facility dedications or contributions, and offsets must be provided for future homeowner or business contributions to growth-related infrastructure (via water rates, sales taxes, property taxes, etc.).¹⁸ As the State of Arizona mandates, impact fees must be used to fund projects that serve new developments. The law prohibits the use of funds generated by impact fees to repay debt. The law also prohibits impact fee revenues from being spent on operations, maintenance, repair, rehabilitation, environmental, or other non-capital expenditures.

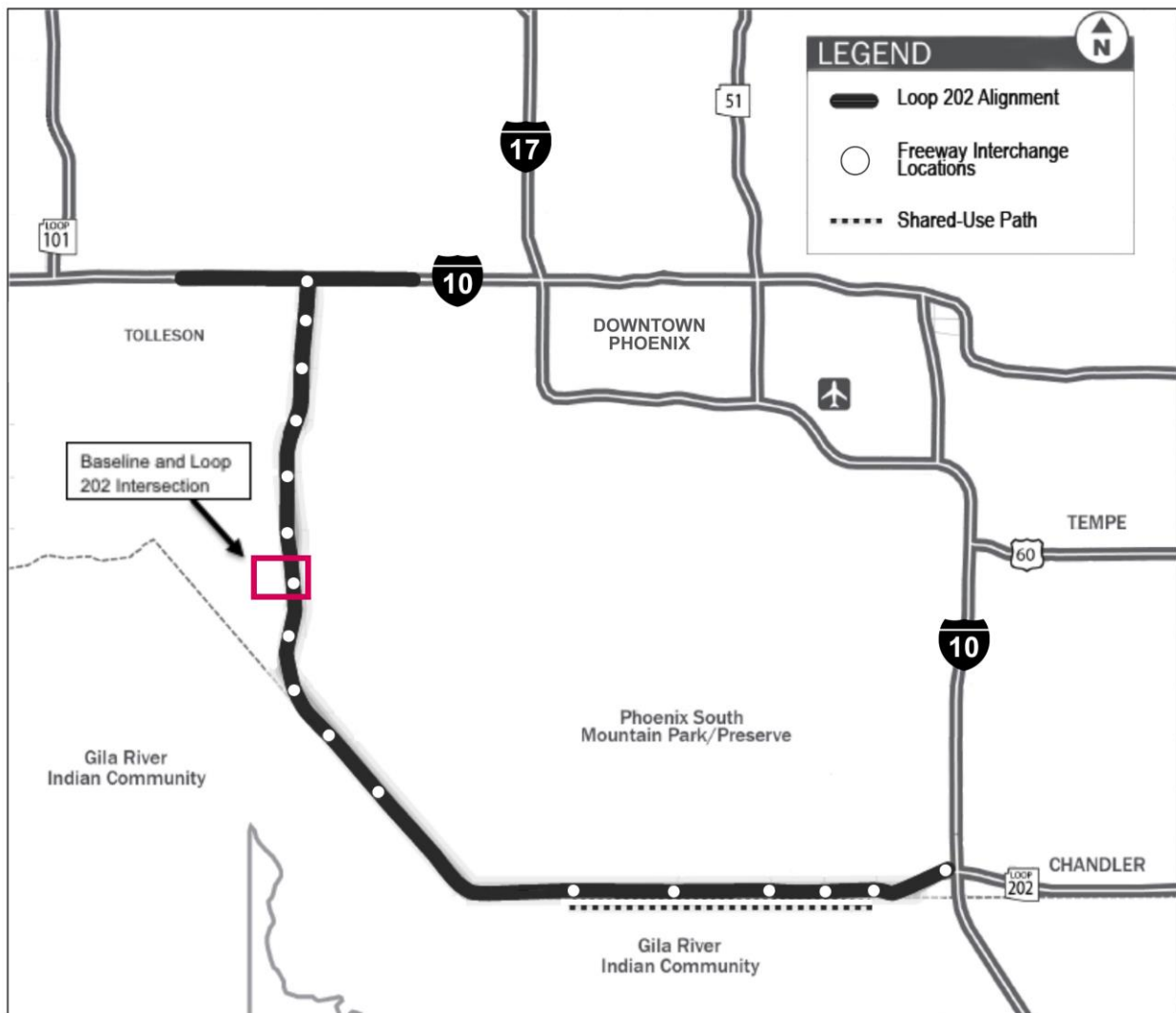
Originally, impact fees areas were mostly consistent with urban village boundaries (the City of Phoenix has 15 urban villages). Each urban village had its own adoption process, projections of development (e.g., by type, density), inventory of needed facilities (e.g., location, attributes, cost), and impact fee rate (by equivalent dwelling unit). Over time, the City of Phoenix consolidated areas (where defensible), streamlined processes, and changed various aspects of the program to reduce the administrative burdens on the development community and meet increasing State of Arizona requirements.

Currently, the City of Phoenix collects impact fees for the following categories: streets, drainage (in specific areas), water, wastewater, water resources, police, fire, parks, and libraries. Only large facilities, such as major arterial streets, water transmission mains (16" and larger), 100-year event regional flood control channels or basins, and neighborhood parks, are eligible to be funded with impact fees.^{18,19}

According to the City of Phoenix, the impact fee program, overall, has been a notable success, providing more than \$34 million in revenues in fiscal year 2019–20.¹⁸ Numerous transportation, potable water, wastewater, and drainage or flood control projects have been constructed using cooperative arrangements between the City of Phoenix and developers, the Flood Control District of Maricopa County (FCDMC), and/or the Arizona State Land Department (ASLD). Existing impact fee balances or future impact fee revenues have been combined with developer contributions, FCDMC funding, and ASLD participation to initiate key infrastructure projects that have facilitated development in the growth areas over the past 30 years.

One of the last major highway projects in the City of Phoenix proper is the South Mountain Freeway (Loop 202). It connects the western part of the valley with the eastern part of the valley via a six-lane project that links Interstate 10 on the west side of downtown Phoenix to Interstate 10 southwest of downtown (see Figure 6). Loop 202 was recently completed after many decades of planning, public debate, legal action, and then funding issues, providing additional transportation access to three Phoenix village planning areas—Estrella, Laveen, and Ahwatukee.²⁰

Figure 6. Loop 202 (South Mountain Freeway) (Source: Arizona DOT)



Loop 202 connects with a number of major arterial streets in Phoenix, and one of those is Baseline Road, which is an important east-west artery that serves much of the Laveen area. The area in the vicinity of the Baseline and Loop 202 intersection (see red square in

Figure 5) is a mix of recently developed single-family residential land and vacant land that will be used for residential and commercial development. On the east side of the intersection, a new arterial road and associated improvements were required, and the frontage of this road is held by numerous landowners who plan to construct commercial developments.

Some of the landowners plan to initiate improvements soon while others do not; one landowner wanted to begin development immediately, precipitating the need for arrangements on the design and construction of the roadway on both sides of Loop 202. This negotiated transaction was intended to be a public and private agreement to expedite and get economies of scale for the design and construction of the roadway connection to the new Loop 202, which was under construction.²⁰

5.1.2 Project Finance

In the Baseline and Loop 202 Intersection Project, the City of Phoenix and landowners agreed to perform design and construction of the project at one time to accommodate the anticipated development on all four commercially zoned corners, avoiding ongoing road construction and associated congestion while reducing costs. To facilitate this type of arrangement, the City of Phoenix decided to assist with the coordination of the project and contribute financially to it using street impact fee funds.²⁰

Specifically, the City of Phoenix agreed to pay for the curb-to-curb construction costs of the project if the adjacent landowners pay for all remaining costs, including those associated with sidewalks, parking lot and collector access, streetlights, signage, and adjacent improvements (including landscaping). The City of Phoenix used existing funds in the Southwest (Laveen/Estrella) street impact fee account for this purpose. The total cost of the project was approximately \$3.3 million, and the city contributed approximately \$1.6 million from street impact fees. In addition, the adjacent landowners provided the required public right-of-way to be dedicated for the roadway improvements.

Overall project costs were reduced because of this coordination between the City of Phoenix and landowners. In addition, construction timelines were reduced, helping to limit congestion and access problems. As a result, the City of Phoenix was able to achieve many of its transportation and economic development objectives without having to take on the responsibility of designing and constructing a major arterial intersection itself. The role of the City of Phoenix was limited to coordination and providing a financial contribution that was capped at \$2 million.

5.1.3 Lessons Learned

The Baseline and Loop 202 Intersection Project is funded by impact fees along with other funding sources. The use of impact fees brings opportunities and generates some challenges.

Impact fees bring the opportunity of having a new funding source, collected upfront, for transportation projects. The implementation of impact fees creates little public resistance, even though they are sometimes seen as a new tax. Finally, impact fees encourage developers to start the projects as soon as they are ready, thus expediting the pace of development. This is because all developers must pay impact fees regardless of the implementation status of the new transportation improvement. The practice of delaying developments, waiting for transportation improvements to be completed, and avoiding contributing to those is observed in other parts of the City of Phoenix where impact fees are not in place.²⁰

The City of Phoenix faces different challenges associated with its impact fees. In order to implement the transportation impact fees, the City of Phoenix had to spend a significant amount of resources and coordinate across city departments to fulfill the obligations mandated by the State of Arizona. Once the impact fee was implemented, the City of Phoenix faced other challenges that can be grouped into revenue stream challenges and administrative challenges.

Revenue streams generated by impact fees are mainly driven by the pace of development and the size of the development. Small developments of less than 1,000 square feet provide small revenues. Moreover, new developments occurring in areas with several landowners generally develop slowly, and therefore, impact fee revenue generation is also slow. The fact that revenues are so cyclical and could potentially be reduced or eliminated because of new statutory restrictions makes it difficult to use impact fees as collateral for issuing bonds. In practice, an entity with real property taxing power, such as the City of Phoenix or a Community Facility District, uses future real property tax revenues as collateral to secure low-interest rate financing. Then, impact fee revenues are used to pay the debt. In some instances, developers funded the projects and the City of Phoenix repaid them using revenues generated by impact fees. Every year, as part of the CIP development process, the City of Phoenix performs forecasts on impact fee revenue potential for the next 5 years. This practice allows the city to closely monitor impact fee annual revenues and describe the uncertainty associated with them. Another challenge is that impact fees are not sufficient to fund the entire transportation project. They just complement traditional funding sources, helping to close the funding gap.²⁰

Regarding administrative challenges, the State of Arizona requires the development of 10-year horizon impact fee plans, annual impact fee reports, and a biennial audit of the impact fee reports. This is translated into a significant amount of resources spent every year to administer the impact fees. Another administrative challenge is associated with the lack of flexibility of funds generated by impact fees. These funds must be exclusively used to fund projects that meet the transportation demand of new developments. Finally, the City of Phoenix encounters resistance from developers and landowners who complain about the fees. One of the main complaints is that impact fees charged to new developments located north of the city are the highest in the entire city. The reason why this occurs is because transportation project costs are higher in that area due to drainage issues that should be addressed during project construction. To decrease developers' and landowners' resistance, the City of Phoenix created the Committee of Development. This committee obtains inputs from developers and landowners, and provides them with all available information about impact fees. As a result, the City of Phoenix increases transparency and accounts for inputs from developers and landowners, thus ensuring fair and equitable impact fees.²⁰

5.2 Special Assessments: Dulles Corridor Metrorail Project – Fairfax County, Virginia

The Dulles Corridor Metrorail Project illustrates how Fairfax County, a large and heavily urbanized community, uses revenues generated by two Transportation Improvement Districts (TIDs), a type of special assessment, to partially fund a transit project listed on its CIP. Fairfax County uses the CIP as a planning tool to coordinate the financing and timing of the Dulles Corridor Metrorail Project in a way that maximizes the return to the public.

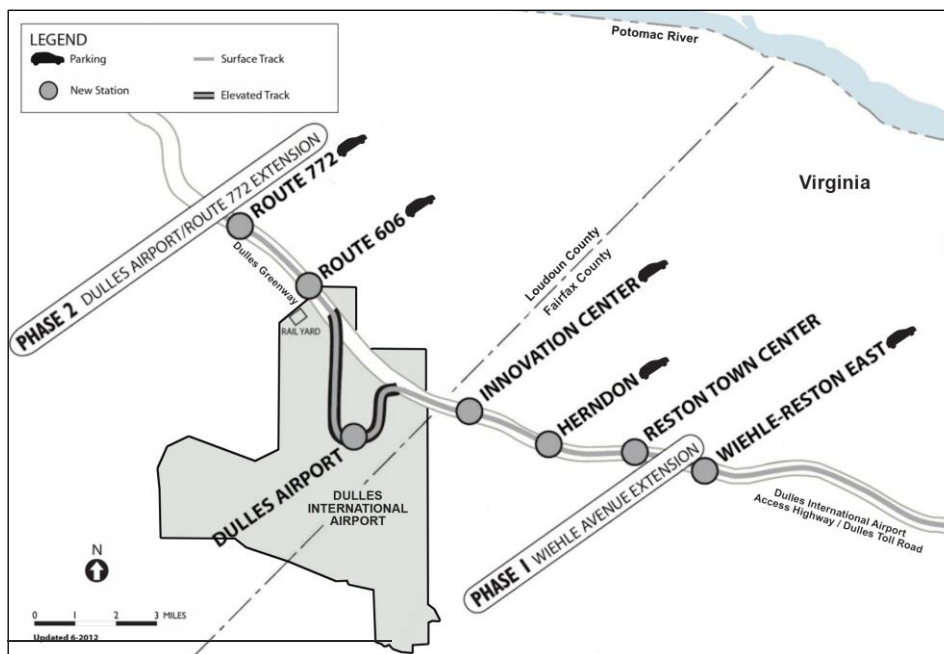
5.2.1 Background

Fairfax County, located in the Commonwealth of Virginia, had an estimated population of 1.14 million in 2019. The comprehensive capital project planning process of Fairfax County has three essential components. These are the comprehensive plan, the CIP, and the capital budget. The comprehensive plan communicates policy directions for the next 20 to 25 years. The CIP identifies the capital improvements to support the implementation of the policies of the comprehensive plan. Finally, the capital budget serves as a tool to appropriate the funds for the capital improvements identified by the CIP.²¹

The Commonwealth of Virginia provides a legal framework authorizing local communities with taxing power, such as towns, cities, or counties, to establish TIDs. Under the current legislation, local communities can tax commercial and industrial properties located in the TID to fund transportation improvements within the district. Local communities can establish a TID if at least 51 percent of commercial and industrial real property owners (measured in area or real property assessed value) must make a formal petition.^{xxi} Residential properties are not taxed by the TID. However, multifamily rental properties are considered commercial properties and taxed by the TID.

The Dulles Corridor Metrorail Project is a 23-mile extension of the Washington, DC, area metro from the East and West Falls Church stations located along I-66, extending along the Dulles Connector Road to Route 123, then through Tyson's Corner to Route 7, turning west to reconnect with the Dulles International Airport Access Highway, and then to Dulles Airport and into Loudoun County (see Figure 6). The project was designed to be executed in two phases. Phase 1 of the project runs 11.7 miles from East Falls Church to Wiehle Avenue in Reston, Virginia (see Figure 6). Phase 2 will continue 11.4 miles from Wiehle Avenue to eastern Loudoun County, Virginia, as shown in Figure 6. Phase 2 will add six stations, including stops in Reston, Herndon, Dulles Airport, and Ashburn.²²

Figure 7. Silver Line Project²³



^{xxi} VA Code § 15.2-4603 (2019).

5.2.2 Project Finance

The construction of Phase 1 of the Dulles Corridor Metrorail Project began in March 2009. Phase 1 opened to the public on July 26, 2014. The total cost of Phase 1 was approximately \$2.9 billion. This phase was funded with a mix of Federal, Commonwealth, and local funding sources. Local funds were provided by Fairfax County, Loudoun County, and the Metropolitan Washington Airports Authority. Fairfax County agreed to pay \$400 million for Phase 1 construction costs. In 2013, the county completed its \$400 million payment using a combination of funds generated by the Phase 1 TID and bonds secured by future revenues of the TID. Total tax revenue collected since the TID was established in June 2004 was approximately \$364.1 million (as of February 2020). The Phase 1 TID allows a tax rate of up to \$0.40 per \$100 of assessed real property value. The tax rate for the Phase 1 TID in 2020 was \$0.11 cents per \$100 of assessed value of commercial or industrial real properties. This tax rate will remain in effect until all debt service payments have been paid in full.²¹

On the other hand, the construction of Phase 2 began in 2014 and it is expected to start operations in early 2022.^{24,25} The Phase 2 estimated cost is \$2.8 billion. Fairfax County agreed to pay a total of \$575 million for the construction of Phase 2. For Phase 2, a total of \$330 million will be funded by a second TID established around the Phase 2 metrorail corridor within Fairfax County. Total tax revenue collected since the TID was established in December 2011 is approximately \$120.7 million. The initial tax rate of the special assessment was \$0.05 per \$100 of the taxable value of commercial or industrial real properties in 2011, with annual increases of \$0.05 up to a maximum of \$0.20 that was reached in 2014 and was kept constant through 2020. When full revenue operations commence on Phase 2 in April 2021, the tax rate may be increased to fulfill debt obligations.²¹

5.2.3 Lessons Learned

Fairfax County used funds generated by two TIDs to partially fund Phase 1 and Phase 2 of the Dulles Corridor Metrorail Project. This section discusses opportunities and challenges faced by Fairfax County during the implementation and administration of the TIDs.

The TIDs generate consistent revenue streams that can be used as funding or financing mechanisms. Particularly, revenues generated can be deposited into the TID account and be used on a pay-as-you-go basis. Nonetheless, future revenues generated by the TID can be used to issue bonds and secure the funds upfront or during appropriate project phases to pay for the project. In this regard, Fairfax County has been using funds generated by the two TIDs on a pay-as-you-go basis and to issue bonds. In other words, TIDs have been used as funding and financing mechanisms to deliver the Dulles Corridor Metrorail Project.²¹ In addition, funds generated by TIDs offer a certain flexibility in terms of the type of project for which they can be used. Specifically, TID revenues can be used to fund transportation projects within the district that are identified in an adopted land use development plan.

In general, the implementation of TIDs may face resistance from landowners and developers because it is a new tax. Moreover, real property owners within the district may argue that their neighbors outside the district or future residents are not asked to pay the fee although they are benefiting from the improvements. This can be translated into a lack of support. According to the Commonwealth of Virginia, to initiate the process of establishing a TID, at least 51 percent of the commercial and industrial real property owners (measured in area or real property assessed value) must make a formal petition. In Phase 1 of the Dulles Corridor Metrorail Project, this challenge was overcome with the help of a group of

developers who supported the idea of contributing to fund the project by means of a TID. The group was named Landowners Economic Alliance for the Dulles Extension of Rail (LEADER). This group carried out an outreach campaign to gather the support required to formulate the TID petition of Fairfax County.²⁶

Once the TIDs are established, Fairfax County faces other challenges that can be grouped into revenue stream challenges and administrative challenges. Revenues generated within the TIDs are mainly driven by new development and growth in real property assessed values. These two main drivers are uncertain, and this uncertainty is transferred to future revenues generated by the TIDs. Every year, as part of the CIP development process, Fairfax County performs forecasts on TID revenue potential for the next 10 years.²¹ Moreover, the District Commission performs a revenue computation for the current year (budgeted) and a forecast for the following year.^{27,28}

Fairfax County faces two main administrative challenges. These are perceived lack of transparency and equity. Regarding transparency, some landowners and citizens may see TIDs as a hidden local government within the county. To address this challenge, the Board of Supervisors meetings with the Phase 1 and Phase 2 Dulles Rail Transportation Improvement District Commissions are streamed live and can also be viewed on demand via the Fairfax County website. On this website, meeting materials since the TIDs were established are available to the public. Finally, the TIDs may raise equity concerns. Specifically, some property owners in the district may argue that tax rates are high. In this regard, the District Commissions of Phase 1 and Phase 2 TIDs evaluate the capacity of meeting the annual debt commitments of the TIDs adopting different tax rates and recommend a tax rate for the next fiscal year. The results and recommendations of these analyses are presented every year to the Board of Supervisors, landowners, and the public.^{29,30}

5.3 Jackson School Road Project – City of Hillsboro, Oregon

The Jackson School Road Project is a clear example of how a medium size community uses the CIP as a fiscal planning tool to prepare a diverse funding package that addresses a roadway maintenance backlog. The use of the CIP ensures the adequate combination of funds from various sources in time and quantity over the entire life of the project. As a result, the funds are available when they are required, expediting the delivery of the project. The City of Hillsboro funded the Jackson School Road Project using TUFs, impact fees, and other traditional funding sources.

5.3.1 Background

The City of Hillsboro, located in Washington County, is the fifth largest city in the State of Oregon. In 2019, the city had an estimated population of 109,128 residents. The Hillsboro City Council has adopted the Hillsboro 2035 Community Plan. The plan shares the vision and expresses the desire of the community for a safe, environmentally sustainable, and accessible transportation system with enhanced transit, pedestrian, and bicycle facilities.³¹ The City of Hillsboro uses the CIP to implement its community plan. In this regard, the City of Hillsboro CIP includes a list of transportation capital improvements that requires the investment of millions of dollars to be funded from various sources, including value capture techniques.

Transportation capital improvements are funded by means of Federal, State, and local sources. Historically, communities in the State of Oregon had relied on gas taxes, vehicle registration fees, and large truck weight-mile fees to pay for transportation improvements. In fact, Oregon was the first State to

adopt a gas tax in 1918. Currently, the State of Oregon fuel taxes are \$0.36 per gallon. Moreover, Washington County imposes an additional \$0.01 per gallon local gas tax. As of today, the City of Hillsboro does not have a local gas tax in place. State and county gas taxes are not sufficient to pay for improving and maintaining the streets of the City of Hillsboro. In 2006, the city started exploring new funding sources to help close its funding gap.³² These efforts resulted in the adoption of a TUF that the City of Hillsboro approved in 2008 and went into effect in March 2009. The TUF was aimed at closing a funding gap in the street maintenance budget. The TUF is collected from all residential, business, government agency, school, and nonprofit properties in the city through the utility bill. Funds generated are used to improve pavement conditions throughout Hillsboro. In fiscal year 2020–21, the TUF is estimated to generate \$3.8 million for the Pavement Management Program (TUF–Pavement Management) and \$1.2 million for the Bicycle and Pedestrian Capital Improvement Program (TUF–Pathways).³³

Using a combination of traditional funding sources and value capture funding, the City of Hillsboro is in the process of delivering the Jackson School Road Project. Northeast Jackson School Road between Northeast Grant Street and Northwest Evergreen Road is a collector street serving as a north-south link between downtown Hillsboro and Highway 26. It also serves as access to Jackson, Lincoln, and Mooberry elementary schools, and Hamby Park. Jackson School Road is currently a two-lane roadway with intermittent center turn lanes and incomplete sidewalks. It lacks safe bicycle lanes and has limited roadway lighting.³⁴ Improvements include the following:

- Sidewalks
- Cycle tracks
- Continuous center turn lane
- Street lighting
- Culvert replacement
- Landscaped planter strips

5.3.2 Project Finance

Project construction started in March 2020 and is expected to be completed in 2025. The estimated cost was approximately \$29 million. The Jackson School Road Project was funded with a mix of traditional and value capture funding sources. The value capture mechanisms used to fund the project were impact fees and TUFs.³⁵

The Traffic Development Tax (TDT) is an impact fee managed by Washington County. It became effective on July 1, 2009. The TDT is a one-time charge to developers based on the estimated traffic generated by a new development within Washington County. Funds generated by the TDT are dedicated to fund road and transit capital improvements that provide additional capacity to the transportation system of Washington County.³⁶

The Traffic Impact Fee, managed by Washington County, was replaced by the TDT in 2010. However, remaining revenues are used to fund transportation projects. Revenues from the Traffic Impact Fee were used to fund transit capital improvements (Traffic Utility Fees for Transit) and streets or pathways capital improvements (Traffic Utility Fees for Collectors).³⁷

Before the TUF was established in 2009, the City of Hillsboro relied solely on gas tax revenues to fund street maintenance. However, this revenue source was not sufficient to pay for ongoing maintenance needs, creating a significant maintenance backlog. Revenues generated by the TUF allowed the city to eliminate the maintenance backlog and maintain its streets in an adequate condition and meet its target level of service. The City of Hillsboro TUF consists of TUF–Pathways and TUF–Pavement Management. TUF–Pathways is the portion of the revenues generated by the City of Hillsboro TUF dedicated to sidewalk and bicycle path maintenance and improvements. TUF–Pavement Management is the portion of the City of Hillsboro TUF dedicated to street pavement maintenance.³⁷

Table 8 presents the value capture mechanisms used to fund the Jackson School Road Project.^{37–41} Specifically, Table 8 shows the amount that each value capture mechanism contributes to the project in comparison with traditional funding sources. As can be observed, the value capture funding sources provide almost \$18 million and traditional sources around \$11 million. In other words, approximately 64 percent of the Jackson School Road Project is being funded using value capture techniques (see Table 8).

Table 9: Jackson School Road Project Costs and Funding Sources

Project Costs	Prior Years	2020-21 Budget	2021-26 Estimate	Total
Pre-Construction	\$5,093,675	\$350,000	\$590,000	\$6,033,675
Construction	\$4,042,000	\$5,900,000	\$10,073,367	\$20,015,367
Other	\$1,805,747	\$350,000	\$0	\$2,155,747
Total	\$10,941,422	\$6,600,000	\$10,663,367	\$28,204,789
<i>Funding Sources</i>				
TUF–Pavement Management	\$462,802	\$396,000	\$387,000	\$1,245,802
TUF–Pathways	\$831,945	\$726,000	\$709,500	\$2,267,445
Traffic Impact Fee – Transit	\$803,614	\$462,000	\$451,500	\$1,717,114
Traffic Impact Fee – Collector	\$61,132			\$61,132
Traffic Development Tax	\$5,984,964	\$1,592,000	\$3,999,000	\$11,575,964
Traditional Funding Sources	\$2,796,965	\$3,424,000	\$5,116,367	\$11,337,332
Total	\$10,941,422	\$6,600,000	\$10,663,367	\$28,204,789

Source: Information extracted from^{38–41}

5.3.3 Lessons Learned

The City of Hillsboro used funds generated by its TUF to deliver the Jackson School Road Project. This section discusses opportunities and challenges faced by the City of Hillsboro during the implementation and administration of its TUF.

The City of Hillsboro TUF brings the opportunity of adding additional funds to the street department budget to meet road maintenance needs. In 2020, revenues generated by the TUF represent approximately 60 percent of the City of Hillsboro’s street maintenance budget.⁴²

The most frequent challenges faced by communities that want to establish a TUF are legal, political and public resistance, and administrative. Legal challenges sometimes arise from the lack of legislation enabling communities to create TUFs. In the case of the City of Hillsboro, the State of Oregon does not specifically define the principles that communities must follow to establish TUFs. Therefore, the City of Hillsboro had to reach community consensus before establishing the TUF.⁴³ In 2007, the City of Hillsboro started the feasibility analysis of the implementation of the TUF. Consensus was reached in 2008. Finally, the TUF went into effect in March 2009. Political and public resistance may arise for two reasons. First, the public may feel that the form in which TUF rates are calculated is inequitable. This public resistance is frequently translated into political resistance, particularly during election years.⁴⁴ Second, some entities, such as school districts and nonprofit organizations, may feel that they should be exempt from this fee. Once the TUF is established, administrative challenges related to equity and fairness at the time the TUF rate needs to be revised may occur. Another administrative challenge is associated with proper use of the revenues to exclusively fund maintenance projects and the need for project coordination with other utilities often buried in the street right-of-way (e.g., electricity, water, internet).

The City of Hillsboro Council appointed an Ad Hoc Transportation Finance Advisory Committee to address these challenges. The committee consisted of members representing the interests of all parties involved, making it possible to reach a consensus about all aspects related to the TUF. The committee members were:³²

- Members from homeowner associations.
- Representatives from institutional organizations.
- Representatives from commercial and industrial interests.
- City staff from public works, finance, and administration departments playing a supporting role.
- The consultant in charge of the TUF feasibility study also playing a supporting role.
- The local press as observers.

During nine 2-hour sessions, the committee discussed all aspects of the TUF. Based on the inputs from city staff and the consultant regarding the feasibility of implementing a TUF and the expected revenue, the Ad Hoc Transportation Finance Advisory Committee recommended the adoption of a citywide TUF to pay for the operations and maintenance costs of the city's street network. The committee also recommended a TUF rate structure focused on equity and fairness. This structure considers waivers, credits, and incentives to account for different customers' behaviors and circumstances. Moreover, the committee recommended the creation of a public education and outreach program to help the public better understand the need for establishing a TUF and the benefits associated with it. In this regard, the City of Hillsboro has a website with all information about its TUF, including ordinances. Moreover, the City of Hillsboro uses social media and advertisement campaigns to inform the public about the TUF. These initiatives have the objective of reducing public resistance and, consequently, political resistance. Regarding administrative challenges, the committee proposed the appointment of an oversight committee to ensure a fair and equitable system for rate revisions and the mandate of reducing or eliminating the TUF if sufficient revenue from State, Federal, or regional sources becomes available for street maintenance.³² Finally, the City of Hillsboro coordinates its maintenance plans with city departments or the private companies responsible for utilities buried in the street right-of-way every 1 or 2 years to reduce traffic disruptions and avoid duplicative efforts.⁴² The City of Hillsboro collects TUF revenues through the utility bill.

5.4 Eastlake Boulevard Extension Phase 2 – Town of Horizon City (TX)

The Eastlake Boulevard Extension Phase 2 Project provides an example of how a small community facing rapid growth challenges was able to effectively collaborate with other local governments to improve regional mobility and tap into value capture as an innovative transportation funding tool to deliver a critical transportation project. The project also illustrates how beneficial capital improvement programming is in advancing projects that require complex intergovernmental cooperation and funding arrangements.

Having a CIP and incorporating value capture into project funding through a Transportation Reinvestment Zone (TRZ) enabled the Town of Horizon City not only to ensure that project funds would be available when needed, but also to develop interagency partnerships and leverage other financing mechanisms. The Eastlake Boulevard Extension Phase 2 Project was jointly funded by the Town of Horizon City using municipal TRZ revenues, and the County of El Paso, which used vehicle registration fee revenues. The Town of Horizon City and the County of El Paso partnered with a regional agency—the Camino Real Regional Mobility Authority (CRRMA), which in turn issued bonds backed by the county’s vehicle registration fees to pay for the project. The paragraphs that follow describe the project in more detail and summarize lessons learned that could be of interest to other local governments facing similar situations or challenges.

5.4.1 Background

The Town of Horizon City is located approximately 20 miles southeast of the City of El Paso, in El Paso County, Texas. The town has grown very rapidly over the last two decades, going from 5,233 in 2000, to 16,735 in 2010, and reaching a population of 19,741 by 2018 (according to the U.S. Census estimate). Horizon City’s general fund revenue budget for 2020 was approximately \$10 million, and its largest revenue source is property taxes. The town covers about 8.7 square miles and is mostly landlocked, abutting the City of El Paso, the City of El Paso Extra-Territorial Jurisdiction (ETJ), and the City of Socorro (Texas) ETJ.

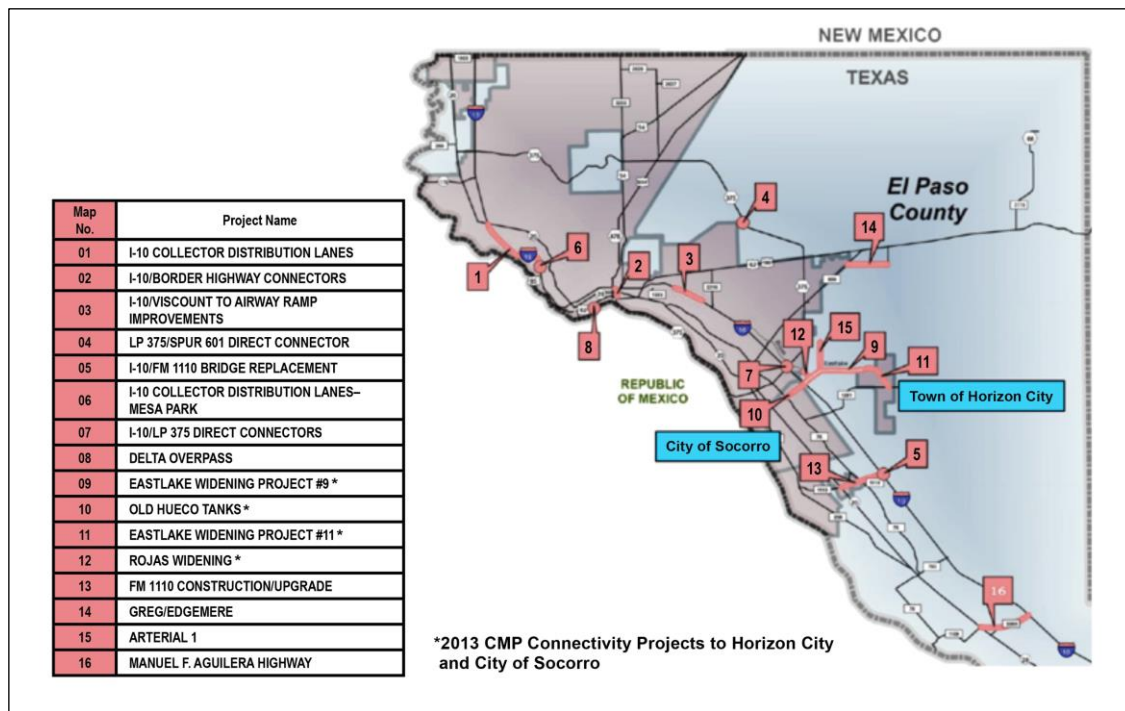
In the face of these geographical and financial constraints, Horizon City has turned to strategic planning and management, and has been forced to consider innovative funding to meet its transportation infrastructure and mobility needs. Horizon City developed and adopted its first comprehensive plan—Vision 2020—in 2011. The Vision 2020 Plan also included the town’s first Major Thoroughfare System Plan. In 2020, a new comprehensive and strategic plan was adopted—Shaping Our Horizon: 2030—along with amendments to the Major Thoroughfare System Plan. In 2014, the town adopted its first CIP, which included \$15 million for infrastructure projects, and issued certificates of obligation to fund local projects. Since then, Horizon City has continued to invest in infrastructure, with a combination of local and Federal funds and a 2018 CIP debt issuance totaling \$13 million to fund park projects.⁴⁵ The town’s most recent CIP totals \$117.7 million of funded and unfunded projects.

In 2013, Texas DOT, El Paso County, CRRMA, the Town of Horizon City, and the City of Socorro partnered to develop the El Paso County Comprehensive Mobility Plan (CMP). The plan, endorsed by the El Paso MPO, presented a long-term mobility vision for the El Paso region and outlined objectives, strategies, and policy measures to achieve this vision.⁴⁶ The 2013 CMP consisted of a set of 16 multimodal projects, including pedestrian facilities, spread throughout El Paso County (see Figure 7). The plan included accelerating projects outside the boundaries of the City of El Paso to meet the connectivity and growth requirements of the Town of Horizon City and its neighbor to the south of I-10,

the City of Socorro, Texas (see projects 9, 10, 11, and 12 in Figure 7). The total estimated cost of the 2013 CMP was \$406 million, and the funding package included \$260 million in Federal and State funds, \$132 million in county vehicle registration fee (VRF) funds, \$9 million from the City of Socorro, and \$5 million from the Town of Horizon City.⁴⁶

Eastlake Boulevard Extension Phase 2 (referred to as Eastlake Widening Project #11 in Figure 7) was the CMP project to which Horizon City dedicated its contribution. The project was critical for the town as it significantly improved the town’s access to I-10 and connectivity to the City of El Paso, as well as to its neighboring City of Socorro. The project consisted of reconstructing and widening the existing Eastlake Boulevard from Darrington Road to Horizon Boulevard from four to six lanes, and initial estimates were approximately \$19 million.⁴⁶

Figure 8. 2013 El Paso County Comprehensive Mobility Plan⁴⁶

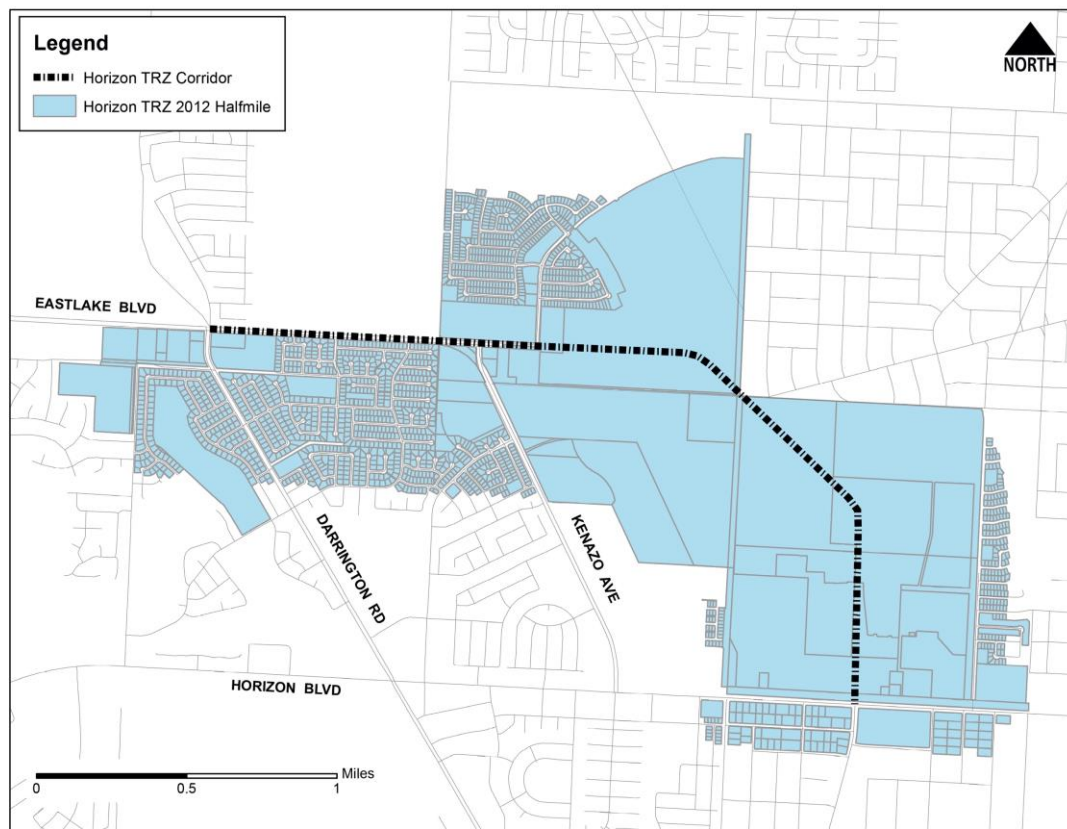


After reviewing different options to generate its local match contribution to the CMP funding package, the Town of Horizon City decided to try a relatively new transportation funding tool for Texas local governments—a transportation reinvestment zone. TRZs are a tax increment financing mechanism that relies on real estate property tax increments within the zone to generate funding for transportation infrastructure. The Horizon City Town Council approved creation of TRZ No. 1 in November 2012. The zone designated the TRZ to include all parcels within a buffer of approximately a half-mile on either side of the roadway, which included 2,104 parcels and a total extension of 1,939 acres (see Figure 8)Figure . About 40 percent of the TRZ acreage was zoned as residential, with most of the remainder being vacant and zoned as either commercial or agricultural.⁴⁷ Based on the amount of potentially developable land, the construction of Eastlake Boulevard Extension Phase 2 was expected to create a significant amount

of growth, which would in turn generate the TRZ revenues needed to pay for the town's share of the project cost.

In spring 2013, an unexpected change in ownership of a large parcel within the TRZ (a private golf course) created a situation that led the Town Council to rescind TRZ No.1 and adopt a new TRZ with revised boundaries. The Horizon Regional Municipal Utility District (HRMUD), a local government unit that provides water utility services to Horizon City, acquired the golf course to facilitate disposal of its treated wastewater. The change in ownership from private to public meant the parcel become exempt from paying property taxes, creating the need to revise TRZ revenue estimates. After rescinding TRZ No.1, the Town of Horizon created TRZ No.2 with slightly revised boundaries and adopted it by ordinance in December of 2014. TRZ No. 2 was expected to generate revenues to finance up to \$6 million dollars in project costs, approximately the amount needed by Horizon City to meet its cost share for the Eastlake Boulevard Extension Phase 2.⁴⁹

Figure 9. Town of Horizon City TRZ No. 2 and Eastlake Blvd. Extension Phase 2⁴⁵



5.4.2 Project Finance

The Eastlake Boulevard Extension Phase 2 Project relied exclusively on local entities and local funding, which allowed the project to move rapidly from design through construction.⁴⁹ Starting in 2015, a series of interlocal agreements were signed between and among the 2013 El Paso County CMP partners.⁵⁰ First, El Paso County and CRRMA signed an interlocal agreement providing CRRMA with access to the

county's VRF revenues to issue bonds and tasking it with developing (designing and building) a slate of the county's 2013 CMP projects.⁵¹

In November 2016, Horizon City signed a three-party interlocal agreement with El Paso County and CRRMA.⁵² The agreement provided for the development and financing of Horizon City's local share of Eastlake Boulevard Extension Phase 2. The agreement committed CRRMA and El Paso County to fund the Horizon City's share of project costs using county VRF proceeds. The town committed to repay CRRMA principal and interest using TRZ No. 2 revenues over a period of 18 years and to acquire the right-of-way for the project. The county funded its share of the project using VRF revenues. Finally, CRRMA served as the vehicle to issue bonds backed by the county VRFs, and as the clearinghouse to reimburse the county for the portion of the VRFs using revenues from Horizon City's TRZ No. 2.⁴⁹

This unique arrangement allowed Horizon City to move from project planning through design and construction in less than 5 years. The project was completed 9 months ahead of the original schedule and under budget.⁵³ The financing plan was partly responsible for this for two reasons. First, the town avoided issuing its own TRZ revenue bonds, which would have been more costly because of the risk associated with the real estate market. Second, the town did not have a need to pursue a Texas DOT State Infrastructure Bank loan, which would have delayed the project by forcing it to go through the Federal review process.⁴⁹ The milestones below provide a comprehensive picture of the project timeline:

- December 2014 – TRZ #2 adopted
- July 2015 – Design contract awarded by CRRMA
- July 2016 – Bids opened
- November 2016 – Three-party agreement executed by CRRMA, El Paso County, and the Town of Horizon City
- January 2017 – Project construction began
- April 11, 2018 – Ribbon-cutting
- October 2018 – Town of Horizon City accepted project for maintenance
- May 2020 – Town of Horizon City made its first payment to CRRMA

In addition, the development agreement with a single executing agency—CRRMA—and the accelerated schedule enabled El Paso County and the Town of Horizon City to benefit from project cost savings.⁴⁹ While the initial cost estimate called for a project cost of just over \$19 million, the actual cost to completion was \$16.7 million, resulting in a savings of about \$2.3 million. Table 9 and 10 provide the initial and final cost estimates for the project design and construction, and the funding breakdown between the County of El Paso (77.3 percent) and the Town of Horizon City (22.7 percent).⁴⁹

Table 10. Eastlake Blvd. Extension Phase 2 Project Estimated Costs and Funding Sources⁴⁹

Item	Estimated Cost	County Portion	Horizon City Portion
Engineering and Environmental	\$2,269,525	\$1,754,343	\$515,182
Construction	\$16,785,565	\$12,975,242	\$3,810,323
Total Estimate	\$19,055,090	\$14,729,585	\$4,325,505

Table 11: Eastlake Blvd. Extension Phase 2 Project Actual Costs and Funding Sources⁴⁹

Item	Estimated Cost	County Portion	Horizon City Portion
Engineering and Environmental	\$1,536,643	\$1,187,825	\$348,818
Construction	\$15,143,338	\$11,705,800	\$3,437,538
Maintenance (10/2018 – 5/2019)	\$42,073	\$32,523	\$9,551
Total Estimate	\$16,722,054	\$12,926,148	\$3,795,906

5.4.3 Lessons Learned

The Eastlake Boulevard Phase 2 Extension Project is an example of effective cooperation among local government agencies to improve regional mobility and transportation infrastructure. The County of El Paso and the Town of Horizon City were confronted with an urgent need to improve their transportation infrastructure, provide connectivity to the rest of the El Paso metropolitan area for its rapidly growing population, and generate economic development. The town's leadership saw an opportunity to advance its economic goals through the transportation investments envisioned in the 2013 El Paso County CMP, and despite being a small and young community, took the bold steps of using a relatively new funding tool in the form of a TRZ and negotiated a unique funding and development agreement with other local entities to make the project happen.⁵⁴

However, this process was not easy and required forging partnerships and developing trusting relationships with other local entities, as well as implementing management processes and tools, such as a CIP, to allow it to effectively manage its growing capital improvement project portfolio. The CIP allows the town to understand and plan more effectively the Eastlake Boulevard Extension Phase 2 Project financing agreement, as well its growing list of other capital projects.⁵⁴

The Town of Horizon City's City Charter requires a 3-year CIP that is presented to the Council twice a year—once in May for review and again in September for final adoption. As the town has continued refining its process for developing their CIP, they have added projects with longer planning horizons to coordinate with requests made to the MPO. Furthermore, the additional projects reflect the council's recognition that many capital projects require long lead times for development.

More specifically, as the town worked to develop the Eastlake Extension Phase 2 Project, it encountered both internal and external challenges that had to be addressed, and which resulted in other lessons learned for the future. Table 12 describes these challenges and how the town addressed them, and summarizes the lessons learned.⁵⁴

Table 12: Eastlake Blvd. Extension Phase 2 Project Challenges and Lessons Learned⁵⁴

Challenge	Description	Lesson Learned
Internal Challenges		
Introducing new funding concept to policymakers	Introducing TRZs, a then little-known funding source, to the City Council was an important step since they would have to vote in favor of directing the increment to fund the specific transportation project. The 2013 CMP was largely conceived and developed externally by the County of El Paso and other regional agencies, so bringing the plan to the City Council required coordination to present the concept of value capture and its specific application to the project. Coordination with Town finance also had to occur.	Plan project development with plenty of time to allow for ongoing discussions with policymakers and key municipal staff. Particularly when the municipality is new to the funding source, policymakers must be comfortable with the concepts and have time to explore different scenarios and ask questions about funding projections and project development.
Determining zone size	Determining the right buffer size for the zone is usually a balancing act for municipalities. The zone should be adequate to cover contingencies that may arise as the TRZ-funded projects are developed; however, the zone should not be so unnecessarily large that the municipality risks over-committing its future general revenue fund, and decreasing its ability to fund basic services. The town worked with the Texas A&M Transportation Institute to develop the buffer it believed to be most appropriate for this specific situation.	CIP managers must work with the municipalities' financial staff and team analyzing zone projected revenues to size the zone appropriately.
External Challenges		
Coordinating with external partners	As the first agreement of its kind, coordination with the County of El Paso and CRRMA under the 2013 CMP was critical. Staff and Town of Horizon City policymakers met with county leaders and county management repeatedly to discuss the project, the town's commitment to its funding share, and the three-party agreement and the participating parties' responsibilities.	Communication with partner agencies is critical to project success. Designate a team to lead those discussions so conversations are consistent and ongoing.

Challenge	Description	Lesson Learned
Right-of-way acquisition	<p>The town committed to securing the necessary right-of-way for the extension. Three distinct property owners were involved, and the town worked to secure either rights-of-way or permanent easements. Working with property owners and utility companies was critical to maintain the project on schedule, so Town staff worked to meet with property owners and the design team to secure the necessary right-of-way for the road construction.</p>	<p>Work with property owners as early as possible in project development to begin negotiations and work on property transfers.</p>
Changes in property designation	<p>While the TRZ's financial analysis anticipated that the land use could change to commercial, the models did not anticipate that a significant change from private to public ownership would occur, yet it did. The golf course sale from private ownership to the HRMUD was material enough for the town that it determined the best approach was to recalibrate the financial analysis and re-establish the TRZ so the golf course as a public property was no longer included in the zone. Fortunately, the timing of the project was not negatively affected by the creation of TRZ No. 2.</p>	<p>Expect the unexpected and be prepared to deal with it.</p>

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APPENDIX

Table 13: Example of Scoring System for CIP Capital Improvements¹²

	Criteria	Criteria Explanation	Points
Safety Improvements (40%)	Safety Improvements	Is there an accident history along the project site?	10
		Does the road accident history include fatalities or high injury rates?	15
		Projects that will mitigate a hazard in locations: Does the project reduce conflicts and/or provide safety mitigation for any potential vehicular conflicts?	5
	Multimodal Benefit	Project adds bike and pedestrian facilities where none exist?	5
		Project location identified in bike or pedestrian plan?	5
Development and Connectivity (40%)	Contribution to Focus Areas (Land Use)	Project is located in or directly serves a regional TIF district.	15
		Project is located in or directly serves a development, industrial center, or employment core.	10
		Project serves an activity center (park, university, K–12 school).	5
	Connectivity of Corridor	Project completes a gap in a corridor (i.e., Is the roadway on either end of the segment constructed to county standards?).	10
Funding and Support (20%)	Non-County Funding Secured	Project is on the Statewide Functional Classification Roadway Network and is eligible for Federal funding.	5
	Project Support	Project is included in a local plan (e.g., transportation plan, corridor plan).	5
		Project has received stakeholder support (project has been discussed in a stakeholder meeting, 1 person = 5, > 1 person = 10).	10
Total Points Possible			100

Table 14: Example of Project Cost Summary Form

Project Name	Project Costs								
	Life to Date	Next Fiscal Year	Planning Year 1	Planning Year 2	Planning Year 3	Planning Year 4	Planning Year 5	Planning Year 6	Total Project Cost
Bike Lanes		\$14,719	\$8,670	\$8,951	\$6,359	\$20,800	\$1,959	\$9,227	\$70,685
Main St. Intelligent Transportation Systems				\$4,638	\$3,923	\$713	\$6,993		\$16,267
Transit Corridor	\$45,252	\$10,175	\$3,634	\$3,227	\$5,225	\$5,638	\$4,305	\$3,944	\$81,400
New Sidewalks	\$30,642	\$22,105	\$12,207	\$6,886	\$4,235	\$6,156	\$693	\$6,601	\$89,525
Total Cost per Year	\$75,894	\$46,999	\$24,511	\$23,702	\$19,742	\$33,307	\$13,950	\$19,772	\$257,877

Table 15: Example of Project Funding Summary Form

Funding Source	Funding Appropriations or Allocations for New Sidewalks Project								
	Life to Date	Next Fiscal Year	Planning Year 1	Planning Year 2	Planning Year 3	Planning Year 4	Planning Year 5	Planning Year 6	Total Funding
General Fund	\$775	\$	\$	\$	\$	\$	\$	\$	\$775
Tax Increment Financing	\$17,903	\$8,236	\$6,887	\$5,502	\$2,247	\$4,651	\$333	\$	\$45,759
Transportation Fund	\$11,964	\$13,869	\$5,320	\$1,384	\$1,989	\$1,505	\$	\$2,842	\$38,873
Total Secured or Appropriated Funds	\$30,642	\$22,105	\$12,207	\$6,886	\$4,236	\$6,156	\$333	\$2,842	\$85,407
Unsecured Funds	\$	\$	\$	\$	\$	\$	\$360	\$3,759	\$4,119

Table 16: Project Detail Form, City of South St. Paul, Minnesota⁵⁵

Capital Improvement Plan
City of South St. Paul, Minnesota

2019 thru 2023

Project #	ENG – 12-121
Project Name	12th Avenue Reconstruction

Department: Engineering
Contact: Chris Hartzell
Type: Maintenance
Useful Life: 50
Category: Streets/Alleys
Priority: 2 Very Important

Finance Priority

Description	Total Project Cost: \$2,920,000
Reconstruct the concrete portion of 12th Ave from Marie Ave to Thompson Ave. Either a new concrete surface or a concrete curb and gutter section with bituminous surfacing. A narrower roadway could be planned to facilitate multi-modal elements and speed reduction improvements. Proposed in 2020 due to MSA funding availability.	

Justification
The existing roadway was built in 1968 and rehabilitated in 1990. The pavement is at the end of its useful life. Sanitary sewer and water will need to be inspected to determine condition and some storm sewer modifications will also be needed.

Prior	Expenditures	2019	2020	2021	2022	2023	Total
\$20,000	Planning/Design		\$200,000	\$200,000			\$400,000
	Construction/Maintenance			\$2,500,000			\$2,500,000
Total				\$2,700,000			\$2,900,000

Prior	Funding Sources	2019	2020	2021	2022	2023	Total
\$20,000	Assessments (Paid for by Property Owners)			\$420,000			\$420,000
	Capital Program Funds		\$200,000	\$295,000			\$495,000
	MSA Funds			\$1,000,000			\$1,000,000
	Sanitary Sewer Utility			\$60,000			\$60,000
	Storm Sewer Utility			\$135,000			\$135,000
	Street Light Utility			\$300,000			\$300,000
	Water Utility			\$490,000			\$490,000
Total			\$200,000	\$2,700,000			\$2,900,000

Budget Impact/Other

Figure 10. Project Detail Form, City of Shoreline, Washington¹¹



Project Description:

This project will provide mobility and safety improvements to users of the N 175th Street corridor. Planned improvements include reconstruction of the existing street to provide two traffic lanes in each direction, a center lane with two-way left turn areas, medians and turn pockets, bicycle lanes (integrated into the sidewalk), curb, gutter, and sidewalk with planter strip where feasible, illumination, landscaping and retaining walls. Intersections with high accident rates will be improved as part of this as well project. Grant funding of approximately \$3.5 million was awarded in 2016. Preliminary design will begin in late 2018.

Service Impact:

This project will improve the safety and mobility of pedestrians, people with disabilities, transit users and drivers and provide better access to the school, park and ride lot, park and residents located along the corridor.

Changes from the 2018-2023 CIP: Project start delayed until 2018.

Table 17: Project Detail Form Excerpt, City of Shoreline, Washington

N 175 TH ST- STONE AVE N to 15 ORGKEY: 2916339 J.L.# ST 269600 PHASE		PRIOR- YRS	2018CB	2018YTD	2018E	2019E	2020E	2021E	2022E	2023E	2024E	6-YEAR Total	TOTAL PROJECT
PROJECT EXPENDITURES:													
1. PROJECT ADMINISTRATION			1,640,000	720	50,000	1,200,000	2,400,000	450,000				4,050,000	4,100,000
2. REAL ESTATE ACQUISITION													
3. CONSTRUCTION													
TOTAL PROJECT EXPENDITURES			1,640,000	720	50,000	1,200,000	2,400,000	450,000				4,050,000	4,100,000
REVENUE SOURCES:													
FEDERAL - STP			1,418,600		43,250	1,038,000	2,076,000	389,250				3,503,250	3,546,500
TRANSPORTATION IMPACT FEES			221,400		6,750	162,000	324,000	60,750				546,750	553,500
TOTAL PROJECT REVENUES			1,640,000	720	50,000	1,200,000	2,400,000	450,000				4,050,000	4,100,000
1% FOR PUBLIC ART ELIGIBLE (Y/N)	ELIGIBLE (Y/N)												
PROJECT TIME LINE:					2018E	2019E	2020E	2021E	2022E	2023E	2024E		
PROJECT ADMINISTRATION					Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4							

GLOSSARY OF TERMS

Abbreviation	Term	Description
CIP	Capital Improvement Program or Plan	A fiscal planning tool developed through a process called <i>capital improvement programming</i> , which is the scheduling of public physical improvements (including transportation improvements) over a period of several years (generally 5 or 6 years).
FHWA	Federal Highway Administration	An agency within the U.S. Department of Transportation that supports State and local governments in the design, construction, and maintenance of the Nation's highway system (Federal Aid Highway Program) and various federally and tribally owned lands (Federal Lands Highway Program).
LRTP	Long-Range Transportation Plan	A plan that identifies how the transportation system will meet economic, transportation, development, and sustainability goals—among others—in a planning area for a 20+-year planning horizon.
MPA	Metropolitan Planning Area	A geographic area determined by agreement between the metropolitan planning organization for the area and the Governor, in which the metropolitan transportation planning process is carried out.
MPO	Metropolitan Planning Organization	The policy board of an organization created and designated to carry out the metropolitan transportation planning process. MPOs are responsible for ensuring that Federal-aid transportation projects in the metropolitan area result from a continuing, comprehensive, and cooperative transportation planning process. MPOs are required to represent localities in all urbanized areas (with populations larger than 50,000, as determined by the U.S. Census).
MTP	Metropolitan Transportation Plan	A plan that acts as a comprehensive blueprint to guide the expenditure of Federal and State transportation funds in a metropolitan planning area for the next 20 years and beyond. The MTP is federally mandated and complies with the statewide and metropolitan transportation planning regulations issued by the U.S. Department of Transportation.
RTPO	Regional Transportation Organization	An organization that identifies local transportation needs, conducts planning, assists local governments, and supports the statewide transportation planning process in non-metropolitan planning areas of a State (with populations under 50,000, as determined by the U.S. Census).
SA	Special Assessment	A value capture technique that involves assessing incremental property taxes on land and often the buildings on that land deriving direct benefits due to a transportation improvement. The tax levied typically represents a portion of the estimated benefit to the properties located with a designated zone in close proximity to the improvement.

Abbreviation	Term	Description
SLRTP	Statewide Long-Range Transportation Plan	A plan that identifies how the transportation system will meet the State's economic, transportation, development, and sustainability goals—among others—for a 20+-year planning horizon. Each State must prepare an SLRTP in accordance with 49 United States Code (USC) 5304(f) and 23 USC 135(f), which provides for the development and implementation of the multimodal transportation system, including transit, highway, bicycle, pedestrian, and accessible transportation.
STIP	State Transportation Improvement Program	A staged, multiyear, statewide multimodal program of transportation projects, consistent with the statewide transportation plan and planning processes, as well as metropolitan plans, transportation improvement programs, and planning processes. Municipalities located outside MPO or RTPO areas use STIP as a guiding document in the development of their CIP.
TIF	Tax Increment Financing	A value capture revenue tool that uses taxes on future gains in real estate values to pay for new infrastructure improvements.
TIP	Transportation Improvement Program	A four-year, fiscally constrained, short-range program that provides a prioritized list of multimodal transportation projects within a metropolitan planning area.
TUFs	Transportation Utility Fees	The fees imposed by municipalities on property owners, treating the transportation system like a utility, charging property owners or occupants for their share of transportation costs based on system use.
UPWP	Unified Planning Work Program	An annual or biennial statement of work identifying the planning priorities and activities to be carried out within a metropolitan planning area. At a minimum, a UPWP includes a description of the planning work and resulting products, who will perform the work, timeframes for completing the work, the cost of the work, and the source(s) of funds.
USDOT	U.S. Department of Transportation	A Federal agency responsible for formulating national transportation policy and promoting intermodal transportation. It also sets safety regulations for all major modes of transportation.

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