

# Value Capture: Capitalizing on the Value Created by Transportation

## Implementation Manual

Every Day Counts | Innovation Initiative

August 2019



U.S. Department of Transportation  
**Federal Highway Administration**

*On-Ramp to  
Innovation*  
every day counts

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## LIST OF ACRONYMS AND ABBREVIATIONS

|        |   |
|--------|---|
| ABI    | Atlanta BeltLine, Inc.  |
| BATIC  | Build America Transportation Investment Center                |
| BID    | business improvement district                                 |
| CDOT   | Colorado Department of Transportation                         |
| CFR    | Code of Federal Regulations                                   |
| DOT    | Department of Transportation                                  |
| FHWA   | Federal Highway Administration                                |
| FONSI  | finding of no significant impact                              |
| GDOT   | Georgia Department of Transportation                          |
| KPI    | key performance indicator                                     |
| LEADER | Landowners Economic Alliance for the Dulles Extension of Rail |
| LID    | local improvement district                                    |
| MARTA  | Metropolitan Atlanta Rapid Transit Authority                  |
| MoDOT  | Missouri Department of Transportation                         |



|       |  |
|-------|--|
| MoU   | memorandum of understanding                              |
| MWAA  | Metropolitan Washington Airports Authority               |
| NEPA  | National Environmental Policy Act                        |
| O&M   | operations and maintenance                               |
| ODOT  | Ohio Department of Transportation                        |
| P3    | public-private partnership                               |
| RRIF  | Railroad Rehabilitation and Improvement Financing        |
| SAD   | special assessment district                              |
| SIB   | State Infrastructure Bank                                |
| TAD   | tax allocation district                                  |
| TDD   | transportation development district                      |
| TID   | transportation improvement district                      |
| TIF   | tax increment financing                                  |
| TIFIA | Transportation Infrastructure Finance and Innovation Act |
| TRZ   | transportation reinvestment zone                         |
| TUF   | transportation utility fee                               |
| UBS   | Union Bank of Switzerland                                |
| UDOT  | Utah Department of Transportation                        |
| USDOT | U.S. Department of Transportation                        |
| VDOT  | Virginia Department of Transportation                    |

## EXECUTIVE SUMMARY

### The funding challenge and opportunity

**Value capture presents an opportunity to meet funding challenges for transportation projects at a local and State level and deliver on public policy objectives.**

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, leaving important safety and mobility objectives unmet.

Value capture refers to a set of techniques that generally take advantage of increases in property values, economic activity, and growth linked to infrastructure investments to help fund current or future improvements. Under the right circumstances, this may allow practitioners to help close funding gaps and accelerate project delivery, as well as provide other real estate-related benefits.

Value capture also presents an opportunity to meet public policy objectives. With value capture, those who benefit from a new transportation investment—including property owners or developers—pay for some of its costs, which results in the funding burden being shared more equitably. Because communities like sharing the costs along with the benefits, projects funded by value capture may more likely meet community goals and advance equity, sustainability, and quality-of-life objectives.

The following list includes some of the many potential benefits of using value capture techniques:

- Offers significant advantages for some projects (several are described in this Manual).
- Helps fund maintenance and improvements.
- Helps accelerate project delivery.
- Encourages smarter land use.
- Induces private development.
- Facilitates projects that are tailored to maximize community benefits.

The opportunities of value capture need careful planning and implementation to be fully realized. Value capture can be an important source of funding for new transportation projects, but it is almost always used in concert with more traditional sources of funding. This *Value Capture Implementation Manual* (the Manual) focuses on how to adapt value capture solutions to project- or context-specific factors to create an overall funding strategy that makes the best use of available value capture alternatives.

### Chapter 1: The purpose of the Manual

**The Manual fills knowledge gaps, providing best practices for identifying opportunities for value capture and integrating value capture into priority projects.**

The Manual defines value capture and its opportunities and limitations. It provides best practices for selecting appropriate value capture techniques, developing a solid business case, assessing real estate

and regulatory barriers, and effectively implementing value capture techniques. Case studies are used throughout the Manual and in the Appendix to highlight successful examples of value capture.

The Manual is primarily intended for public sector practitioners and partners across all levels of government. It may also serve as an educational tool for not-for-profit organizations, stakeholders and community members, and private developers.

## Chapter 2: Assessing funding options and need for value capture



**Identify the funding and financing opportunities value capture is intended to address.**

An opportunity for value capture begins with both a priority infrastructure project and public policy objectives that value capture is expected to serve. The next stage involves developing a plan for how the project will be funded and financed. A funding and financing plan will likely combine more traditional funding sources, such as Federal and State disbursements, with more innovative sources such as value capture.

Value capture can present a unique opportunity to “build the case” for Federal and State funds, because this technique can build community support for an infrastructure project, which can be a requirement for obtaining State and Federal funds, and because value capture revenues can help meet local matching requirements to access Federal and State funds. Other high-level concerns that may influence the appropriateness of value capture include regulatory and legal considerations, stakeholder and community support considerations, real-estate market considerations, and the stage of the planning process.

## Chapters 3 through 9: Identify appropriate value capture techniques



**Identify value capture techniques applicable to the project by carefully weighing considerations related to economic efficiency and equity, political acceptability, legal and institutional feasibility, and real estate market risks.**

The Manual presents 12 value capture techniques grouped into six categories based on common characteristics. **Developer contributions**—including impact fees and negotiated exactions—refer to techniques that generate revenues for a project by collecting fees from private developers.

**Transportation utility fees** generate revenues by levying fees on property owners or building occupants to pay for O&M. **Special taxes and fees** are levied via techniques that include special assessment districts, business improvement districts, sales tax districts, and land value taxes. **Tax increment financing** generates revenues by imposing or capturing an additional or incremental tax on properties within a defined district. **Joint development** refers to techniques in which governments work together

with developers to improve the use of land above or near an infrastructure development. Finally, **naming rights** generate revenues to fund an infrastructure project.

Chapters 3 through 9 of the Manual help practitioners select the most appropriate value capture technique(s) for their project based on legal, economic and equity, political, implementation, and real estate considerations. Relevant decision-making factors include the extent to which the technique is more commonly used to fund capital expenditures (or operations and maintenance costs), whether the technique has been used for highway and road projects, how much revenue it can generate for the project and when those revenues are expected to materialize, the ease with which the technique can be administered and implemented, and its degree of political acceptance.

## Chapter 10: Develop the business and economic case



**Define the business and economic case for a project and associated use of value capture techniques, based on goals and objectives defined through stakeholder consultation.**

**Value capture is more than a way of achieving project funding. It can be a planning and policy lever to align public and private objectives in the planning and delivery process.**

It is important that the rationale for pursuing value capture techniques be integrated into a coherent vision for transportation, mobility, and land use. A key feature of a strong business case is equity from both a public and private perspective. This means an equitable distribution of costs and risks among participants. The business case should also consider the need of investors and developers to meet profitability, financing, and timing thresholds. Public and private benefits and costs should appropriately balance return and risk for each party to make value capture investment feasible.

**It is critical for sponsors of transportation projects involving value capture techniques to involve stakeholders and foster public involvement.**

Stakeholder involvement can help improve the project's benefit to the community, municipality, and/or the State, and to the stakeholders themselves. It can also help mitigate some of the negative impacts of the project.

## Chapter 11: Assess and address real estate market risk



**Assess and understand the characteristics of the broader real estate market as well as the unique project characteristics that may impact property values.**

**Implementing agencies should take the time to understand and assess national and regional trends in the real estate market, including the unique characteristics of the market at and around the transportation facility.**

The value of real estate, the main source of the “value” in many value capture strategies, is driven by several economic and demographic factors. It is also driven by regional, local, and neighborhood trends. The real estate market is an enormous component of the U.S. economy, consisting of a number of categories including housing, office, retail, and industrial. Each sector has unique characteristics affecting the level of demand, business cycle, and access to capital. Real estate markets are subject to business market changes that can be significant, as experienced during the 2007–2009 recession. A variety of trends, including a growing desire to live in denser urban areas and use alternative transportation modes and technologies, affect real estate demand.

**In addition to recognizing longer-term trends, implementing agencies need to understand the unique local considerations of their project that may impact property values.**

## Chapter 12: Address Regulatory Framework



**Ensure value capture techniques are used within the appropriate local, State, and Federal supporting regulations.**

**Local regulations, particularly zoning, play an important role in value capture techniques.**

Jurisdictions that are open to updating zoning policies may ease the application of value capture techniques. In particular, jurisdictions that allow for upzoning or greater density at and around transportation facilities makes value capture more attractive.

**State governments can foster the application of value capture techniques.**

State-enabling legislation is fundamental to providing value capture options for municipalities. Well-designed State-level policies can go even further and streamline value capture adoption in less developed communities. States can also play a role in ensuring that value capture projects benefit from fiscal policies that give cities, towns, and counties the authority to raise funds from value capture and spend them as intended.

**Federal regulations can play a supporting role to local and State regulations in value capture.**

Federal regulations and policies can support value capture by ensuring value capture techniques are recognized as appropriate project funding sources and by helping educate local agencies on value capture benefits. Environmental review is integral to most all project development processes involving Federal funds, including those that utilize value capture techniques.

## Chapter 13: Implement the funding and financing plan



**Develop and implement a funding and financing plan utilizing value capture, based on the unique features of the chosen value capture technique.**

**The mechanics of collecting value capture proceeds need to be finalized before a value capture technique is applied, especially when financing is involved.**

With some value capture techniques, municipalities will ring-fence value capture revenues (i.e., protect the funds from being used for other purposes). This is particularly important when value capture revenues are pledged to repay bonds or loans. It is also important for preserving the integrity of using transportation's indirect benefits for transportation purposes. With other techniques such as impact fees or negotiated exactions, value capture revenues are paid up front. For all techniques, the process of collecting and depositing these monies should be clear and detailed in legal documentation. Implementing agencies should carefully consider how they will manage the value captured or collected and for which purposes the funds will be used.



# 1 INTRODUCTION

## 1.1 Defining the Funding Challenge

State and local governments face increasing challenges in mobilizing funding for their transportation networks, prompting an interest in alternative funding techniques to meet policy objectives related to mobility, safety, and reliable access.

A consensus exists among practitioners that eroding infrastructure diminishes mobility, public safety, and quality of life. Nevertheless, State and local governments often struggle to mobilize all funds to maintain, rebuild, and expand their local transportation networks.

State or local infrastructure plans typically cite the capital and maintenance needs required to support growth and replace aging transportation assets. Although planned projects may advance through the initial planning stages—securing preliminary designs, feasibility studies, and even committed Federal and State funds—they often face hurdles related to funding. Revenues at the Federal or State level may be insufficient,<sup>1</sup> delays in the project timeline may result in cost increases that require alternative sources of funding, or debt ceilings may prevent local authorities from issuing bonds to finance capital costs.

<sup>1</sup> The revenues accruing to the Federal Highway Trust Fund—a primary funding source for States—are increasingly falling short of covering the cost of maintaining and improving the U.S. highway network. In addition, only about a quarter of public roads are eligible for Federal aid.

Funding and financing challenges may result in projects being delayed for years, if not indefinitely, leaving important safety, economic development, and mobility objectives unmet.

## 1.2 Value Capture: The Opportunity

Value capture may allow State and local governments to close funding and financing gaps by capturing a portion of the value generated by an infrastructure investment to fund either part of that investment or future projects.

Value capture is a set of techniques that generally take advantage of the increase in property values, new transportation-related real estate opportunities, and/or the benefits of new transportation facilities to fund infrastructure improvements. Property values can change as a result of a combination of the following: demographics, including population growth or changes in living or mobility patterns; regulations, including changes in zoning laws; and infrastructure investments, such as in road networks, sewerage, or electricity systems. The latter may include investments by public agencies, by private developers, or projects delivered via public-private partnerships (P3s). Infrastructure investments increase the attractiveness of certain areas, raising demand and property values. Many value capture techniques are designed to capture some of this increase in property values or related values. Sidebar 1 explains how an infrastructure investment creates direct and indirect benefits that enable value capture.

### Sidebar 1. Creating Value through an Infrastructure Investment

When a government funds new infrastructure, individuals, commercial businesses, and landowners in the area directly and indirectly benefit, without having directly contributed to the cost of the investment. Infrastructure investments may allow individuals to more easily or quickly access jobs and other services, commercial businesses to attract more customers and make greater profit, and landowners to expand the uses of their land due to changes in zoning regulations. The area surrounding the investment often increases in attractiveness, and demand for residential and commercial properties increases, resulting in increased property and land values. Value capture aims to capture some of the value created as a result of a new infrastructure investment and return it to the community by using it to fund the investment itself or future projects in the same area.

The benefits of value capture techniques can go beyond meeting a funding shortfall, as they can also help advance equity objectives and build community support.

Value capture techniques can promote equity<sup>2</sup> and economic efficiency<sup>3</sup> through the “beneficiary-pays” principle (those who benefit most from infrastructure investments pay more). When the government funds

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<sup>2</sup> The Manual refers to “equity” as promoting fairness among users and taxpayers.

<sup>3</sup> The Manual refers to “efficiency” as the efficient use of resources.



public infrastructure investments through conventional revenue sources, the costs are borne by all taxpayers. With value capture, however, those who benefit from a new investment pay for some of the costs.<sup>4</sup> Beneficiaries can include property owners and developers, who benefit from increases in property values due to proximity to new infrastructure, as well as business owners, as investments in services and infrastructure make areas more accessible.

In addition, the beneficiary-pays principle can encourage community members to become more involved in a project. It requires engaging diverse stakeholders and bringing them together around a common goal of maximizing a project's value. This support can then often be leveraged to secure State and Federal funds for the project.<sup>5</sup>

Finally, value capture can advance social equity, sustainability, and quality of life objectives. Revenues collected through value capture are sometimes used to fund affordable housing and community service facilities or to revitalize distressed neighborhoods. By involving communities, value capture can also create opportunities for open space and recreational facilities, streetscapes or environmentally sustainable designs, reconnection of divided neighborhoods, business districts and parks, and other improvements to quality of life and economic development. These objectives can only be achieved with careful planning and early stakeholder involvement.

### 1.3 Value Capture: What It Can and Cannot Do

While value capture techniques present an opportunity to close funding and financing gaps, they are not a panacea. This section provides an overview of the opportunities and limitations of value capture.

**Although value capture techniques can generate significant revenues, they are a complement to, rather than a substitute for, traditional funding sources.**

Value capture techniques differ from many other funding and financing mechanisms in their ability to generate revenues. Some techniques<sup>6</sup> can raise substantial and reliable revenues that may be pledged toward bond repayment used to finance project capital costs. Other techniques<sup>7</sup> generate smaller revenue streams or are less reliable and serve to “plug” a funding gap. Both technique types are relevant as part of the range of project funding options. Value capture should therefore be seen as a complement to traditional funding sources,<sup>8</sup> not a substitute. Value capture is unlikely to provide enough revenue to fund most projects' capital costs, and so securing traditional funding continues to be critical.

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<sup>4</sup> This is different from farebox revenues where beneficiaries pay for use of the system, which helps fund operations and maintenance (O&M) costs, but they do not contribute to the capital costs of the infrastructure.

<sup>5</sup> Typically, State and local governments must provide at least 20% of the funding for projects benefiting from Federal aid. Value capture techniques can help reach the 20% local funding match to allow governments to access Federal funds. *Source:* “Federal-aid Fund Management Tools,” Federal Highway Administration, Center for Innovative Finance Support, [https://www.fhwa.dot.gov/ipd/finance/tools\\_programs/federal\\_aid/](https://www.fhwa.dot.gov/ipd/finance/tools_programs/federal_aid/).

<sup>6</sup> Examples of value capture techniques that may be able to back bond financing include special assessment districts and sales tax districts.

<sup>7</sup> Examples of value capture techniques that are typically not able to back bond financing include developer contributions and transportation mobility fees.

<sup>8</sup> This Manual refers to Federal and State funds, farebox revenues, and tolls as more traditional sources of funding for infrastructure projects.

Although value capture can speed project delivery, it does not change the economic rationale for a project and therefore should not change project priorities.

By closing a funding gap that may otherwise delay project implementation, value capture techniques can help accelerate project delivery. However, value capture cannot change a project's economic and social rationale. State and local governments should identify priority projects irrespective of whether they present an opportunity for value capture. The decision of whether to use value capture should be taken once practitioners have identified a priority project based on wider policy objectives. Maximizing opportunities for value capture, however, may require changes to the initial scope of the project to allow for optimal integration of land use, transportation, and other infrastructure. As such, the decision to apply value capture should ideally be taken at a point during the planning process when the technical scope can still be altered to some extent.

Value capture techniques will not be appropriate for all infrastructure projects.

Value capture techniques should be assessed and considered on a case-by-case basis. In some cases, the transaction costs of using value capture may exceed the expected revenue potential. In other cases, community members may have valid reasons to oppose the use of a specific value capture technique. Value capture will therefore not be an appropriate funding source for all infrastructure projects.

Value capture techniques can provide opportunities to fund both capital investments and operations and maintenance (O&M) costs.

Value capture techniques differ in the timing of their respective revenue streams. While some techniques can provide an ongoing revenue stream to support O&M, others are more appropriate to fund or finance the capital investment.<sup>9</sup>

The use of value capture techniques can encourage smarter land use.

Landowners are more likely to develop, instead of speculating on, land when they are assessed a fee for being located near well-performing transportation infrastructure through the application of certain value capture techniques, such as land value taxes.<sup>10</sup>

Although value capture has great potential to fund highway and road projects, it has been used more often for transit.

Value capture has well-known applicability to transit,<sup>11</sup> with extensive literature dedicated to the subject. Its applicability to highways, however, is less well known. This presents both a challenge and an opportunity. Practitioners have an opportunity to apply lessons learned from other modes and devise

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<sup>9</sup> This Manual refers to "funding" whenever a source of revenues will directly pay for a stream of costs, whether capital or O&M. The Manual refers to "financing" whenever a stream of revenues is pledged for the repayment of a bond issuance used to pay for the capital costs of the investment.

<sup>10</sup> Sharada Vadali, et al., *Guidebook to Funding Transportation through Land Value Return and Recycling* (National Academies Press, 2018), <https://dx.doi.org/10.17226/25110>.

<sup>11</sup> Transit-oriented development is a type of transit-influenced development that typically combines multi-modal infrastructure improvements, such as pedestrian and bicycle amenities, with mixed-use development in proximity to transit projects.

innovative approaches to applying value capture techniques to highways and roads. One such innovation example is the creation of transportation reinvestment zones in Texas, a mechanism based on the principles of tax increment financing (TIF) but created to meet the needs of highways and roads.

The use of value capture techniques may require a cultural and organizational change within organizations and strong leadership.

Value capture is not a new practice. TIF originated in the 1950s and 1960s as an urban renewal tool. Impact fees, a form of developer contributions, have also been used since the 1950s in the water and sewerage sector. Joint development has been common to U.S. railroads since the 19<sup>th</sup> century. The application of value capture techniques to other surface transportation modes, however, is more recent. As such, value capture techniques are still widely regarded as “innovative,” as opposed to “traditional” funding sources such as State or Federal funds, tolls, or farebox revenues. Due to their innovative nature, value capture techniques may not always appear in the available “toolbox” of funding options. Even if they do, practitioners may lack the leadership support to apply them. Integrating value capture into projects may therefore require entrepreneurship on behalf of government practitioners, strong leadership, and/or an organizational or cultural shift from doing business “as usual” to trying something new to “make a project happen.”

The successful use of value capture techniques requires several enabling conditions.

These enabling conditions include a supportive real estate market; accommodative zoning and land use regulations; statutory authority; articulation of a compelling business case to public partners, private developers, and stakeholders; and development of context-specific financing and implementation strategies. The Manual helps describe how to foster these conditions.

The integration of value capture techniques can be challenging, involving administrative and regulatory complexity.

In contrast to traditional funding sources that are generally well understood by the public, value capture techniques can be complex and require education. Careful design is required to ensure that the right beneficiaries are charged an amount consistent with the benefit received and that charges do not distort development or economic activity. Value capture techniques can add administrative costs, which should be carefully weighed against the technique’s revenue potential. These transaction costs may also include the organization of educational campaigns to increase awareness and stakeholder support. Finally, real estate risks might result in lower-than-expected revenues, which should be carefully assessed, particularly when revenue streams are pledged toward the repayment of bonds.

Even if use of a **value capture** technique is not the correct fit for a transportation project, by considering the application of a technique, **value acknowledgement** can result.

Transportation investments are among the most important decisions a region will make, but there is little understanding of how these investments stimulate the economy, improve quality of life, and add value. The act of assessing the use of value capture techniques can result in improving the understanding of the economic impact of transportation improvements.

## 1.4 The Purpose of the Implementation Manual

The Manual is intended to fill knowledge gaps, providing best practices for identifying opportunities for value capture and integrating value capture into priority projects.

The concept of value capture and its application can be unclear to practitioners and stakeholders alike and sometimes subject to controversy.<sup>12</sup> The Manual intends to clearly define value capture and its opportunities and limitations in order to fill these knowledge gaps and address any misunderstandings about its use and application.

Key questions that the Manual aims to address include:

- How can practitioners determine which techniques may be appropriate?
- What political, legal, economic, and market considerations should be considered?
- How should real estate-related and other risks be assessed and addressed?
- How can practitioners create a compelling case to use value capture?
- What regulatory issues may arise and how can they be addressed?
- What are key value capture technique implementation stages, including maximizing revenue streams and, if appropriate, providing bond pledges?

The intended audience of the Manual includes practitioners and partners across all levels of government, not-for-profit organizations, and private developers.

The Manual is primarily intended to provide practitioners and partners across all levels of government with effective practices for integrating value capture within their projects. Government partners include State, Tribal, regional, county, and local officials. The Manual may also serve as an educational tool for neighborhood and community stakeholders, not-for-profit organizations, and the general public. Finally, developers may also find the Manual useful to better understand how governments may approach the use of value capture.

This Manual is intended to provide information on the use of value capture for a specific project; it is not intended to advise on developing value capture policies.

This Manual is implementation oriented, intended to help government practitioners use value capture techniques in their priority projects. Although it encourages State and local governments to establish clear public policies related to value capture, it is not intended to provide guidance on drafting public policies to promote the use of value capture at a State or local level, on establishing program-wide value capture objectives, or on applying value capture techniques to master infrastructure plans.

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<sup>12</sup> When the concept of value capture is not clearly explained, stakeholders or the general public may assume that it is simply a disguised form of additional taxation.

In addition to providing information on best practices and decision-making tools, this Manual provides case studies of successful value capture implementation.

The Manual provides information on implementation-related considerations, as well as checklists and tools to facilitate decision-making. Case studies are used to highlight successful examples of value capture. Although the Manual is intended to address the use of value capture in highways and roads, case studies of transit projects have also been provided where appropriate to highlight specific lessons learned.

Mini case studies are embedded throughout the Manual in textboxes to illustrate specific examples or lessons learned. More detailed case studies—which discuss the context, funding plans, and implementation challenges for 10 projects that used value capture—are provided in the Appendix. A summary of the detailed case studies is also found in Table 4 and Table 5.

## 1.5 The Structure of the Implementation Manual

The Manual's structure follows the planning and implementation process for a typical project. Chapter 2 provides best practices for developing a project funding and financing plan, including identifying traditional funding sources and determining where value capture may fill a gap. Chapter 3 provides an overview of relevant value capture techniques. Chapters 4 through 9 provide information on specific value capture techniques, including selecting the appropriate technique based on political, legal, economic, market, and implementation considerations, including the timing and magnitude of the revenue stream. Chapter 10 provides best practices for developing a business case for integrating value capture into a project, including building stakeholder support. Chapters 11 and 12 discuss real estate and regulatory considerations. Finally, Chapter 13 provides funding and financing plan implementation information. Figure 1 shows an overview of the structure of the Manual.



**Figure 1. Value Capture Implementation Manual Chapter Overview**



## 2 ASSESS FUNDING OPTIONS AND NEED FOR VALUE CAPTURE

Once a public agency has identified a project that meets public policy objectives, the next stage involves developing a plan for funding and maybe financing the project. This first section of this chapter presents an overview of the range of different funding and financing options available to State and local governments. The second section provides some considerations for government practitioners determining whether value capture techniques may be appropriate for their specific project.

### 2.1 Overview of Funding and Financing Options

Developing a funding and financing plan involves identifying the sources for capital costs and O&M costs.

Developing a funding and financing plan for an infrastructure project is one of the key steps within the planning process. These plans should consider the following questions:

- Which funding and financing sources may be available to cover capital costs?
- Are capital costs eligible for Federal or State funds?
- Which funding and financing sources may be available to cover O&M costs?
- Are O&M costs eligible for Federal or State funds?
- If debt will be issued, which funding sources are available to cover repayment?

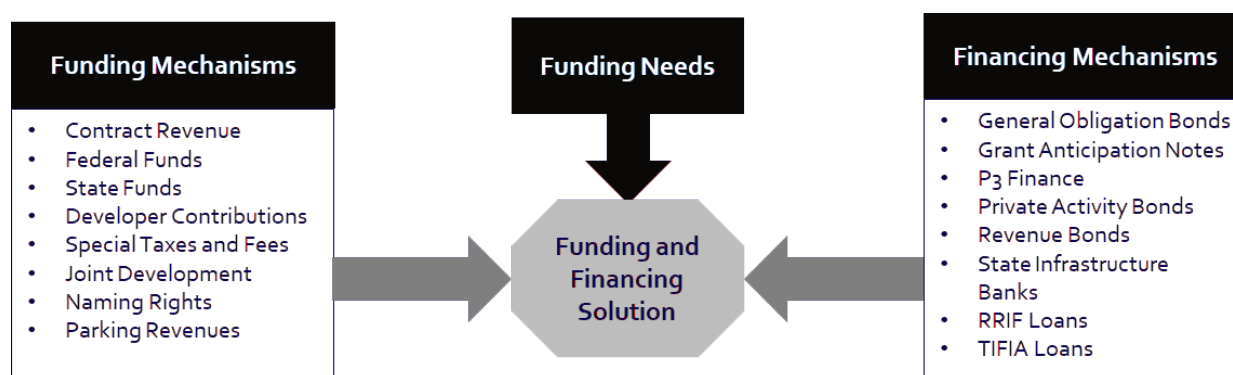
The conceptual distinction between funding and financing sources is explained in Sidebar 2, and Figure 2 provides examples.

### Sidebar 2. Defining Funding versus Financing

Although the terms funding and financing are often used interchangeably, they are separate concepts.

Funding refers to the various sources that are available to help pay for an infrastructure investment. Funding sources may be available immediately (such as Federal or State funds) or may materialize during the later years of the project's life (such as tolls, farebox revenues, or incremental tax revenues).

Financing refers to the set of arrangements that ensure there is enough cash up front or during appropriate phases of the project to pay for the capital costs of the new infrastructure. Financing arrangements can involve debt (including bond financing or bank loans) or equity capital provided by private developers. Issuing bonds results in interest and principal payments or debt service, which are paid for throughout the life of the project. Through financing, future funding sources can pay for the current investment.



*RRIF = Railroad Rehabilitation and Improvement Financing, TIFIA = Transportation Infrastructure Finance and Innovation Act*

**Figure 2. Funding and Financing Options for Transportation Projects**

A funding and financing plan will typically include a combination of traditional and innovative funding and financing sources.

Table 1 provides a non-exhaustive overview of traditional and innovative funding and financing sources. As part of developing a financial plan for a project, practitioners are encouraged to consider all potential funding sources and financing techniques. A good starting point is typically to examine which Federal and/or State funding and financing sources may be available for the project and then to estimate the funding gap for which more innovative sources can be considered. The development of a financial plan often combines different funding and financing sources, requiring practitioners to apply resourcefulness and creativity.



**Table 1. Highway and Transit Funding Sources and Financing Approaches**

| Approach    | Funding Sources   |  | Financing Mechanisms   |
|-------------|---|--|--|
|             | Direct System Revenues  | Other Funding Sources  |  |
| TRADITIONAL | <ul style="list-style-type: none"> <li>• Direct user fees (tolls)</li> <li>• Indirect revenue: <ul style="list-style-type: none"> <li>○ Traditional advertising</li> <li>○ Parking</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• State/Local: <ul style="list-style-type: none"> <li>○ Appropriations</li> <li>○ Sales taxes</li> <li>○ Other local taxes (gas, lodging, rental car)</li> </ul> </li> <li>• Federal funds</li> </ul>   | <ul style="list-style-type: none"> <li>• Pay-as-you-go</li> <li>• Tax-exempt and taxable bonds</li> <li>• Bank loans</li> </ul>  |
| INNOVATIVE  | <ul style="list-style-type: none"> <li>• Concessions</li> <li>• Parking innovations</li> <li>• Innovative advertising</li> </ul>  | <ul style="list-style-type: none"> <li>• Value capture: <ul style="list-style-type: none"> <li>○ Developer contributions</li> <li>○ Transportation utility fees</li> <li>○ Special taxes &amp; fees</li> <li>○ Joint development</li> <li>○ Incremental growth techniques (TIF)</li> <li>○ Naming rights</li> <li>○ Partner agencies' tolls</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Innovative finance: <ul style="list-style-type: none"> <li>○ TIFIA/RRIF</li> <li>○ Tax credit loans</li> <li>○ State Infrastructure Banks</li> <li>○ Section 129 loans</li> </ul> </li> <li>• Via P3 delivery: <ul style="list-style-type: none"> <li>○ Private activity bonds</li> <li>○ Availability/ milestone payments</li> <li>○ Private equity</li> </ul> </li> </ul> |

Some value capture techniques, such as joint development, are associated with P3s, a form of project delivery and risk transfer used in many types of infrastructure projects, including transportation. There are important similarities and differences between these, especially in the procurement process, with P3 procurements often following a more structured process, as described in Sidebar 3.

### Sidebar 3. Differences between Value Capture, P3, and Asset Recycling

Public agencies use P3 techniques to develop and operate transportation infrastructure, including toll roads and transit facilities. The application of certain value capture techniques can be considered P3s. When planning and discussing a project with stakeholders, it is important to be aware of the similarities and differences between the two.

**Key Similarities:** P3s involve the transfer of certain risks between the public agency and infrastructure developers, such as for design, build, finance, and O&M. Many State departments of transportation (DOTs) have undertaken P3s for major highway projects, including those in California, Florida, Texas, and Virginia. Some transit agencies have utilized P3s as well, including projects in Denver, CO, and the Maryland suburbs of Washington, DC.

Value capture joint development projects are a form of P3 in which a transportation agency selects a developer as a partner. Most often, the developer is not building the transportation facility, but some type of development with the public agency benefiting financially and/or through an in-kind contribution as discussed above. It may involve some type of compensation and/or exchange of value.

**Key Differences:** P3s generally involve a highly structured procurement that ends with the selection of one firm or a group of firms to deliver the transportation project. Value capture procurements may be highly structured or they may be closer to qualifications-based selection processes, in which the firm or consortium of firms is selected based on its expertise or concept, with the final agreement negotiated once the project parameters have greater clarification. Also, a joint development may include one or more developers. The Denver Union Station joint development, for instance, had multiple developers.

Furthermore, other value capture techniques, such as TIF districts, special assessment districts (SADs), and business improvement districts (BIDs), may involve one developer or a number of them. With these techniques, there is not usually a selection process but an approval process that may include one landowner or a group. In the case of TIF, some municipalities provide this benefit to one developer as part of an agreement to pay for necessary infrastructure improvements. These agreements are usually derived from negotiations and not a fully competitive process.

**Asset Recycling:** Asset recycling is an approach that relates to and/or overlaps with P3s. In asset recycling, existing public use infrastructure is sold or leased to a private party. The government uses the monies to pay for the improvement of other infrastructure assets. This technique has been used in Australia<sup>13</sup> and is now in use in the United States. Often under the arrangement, an existing asset is leased to a private party that then enhances that asset, such as in the U.S. 36 Express Lanes project in Denver, CO.<sup>14</sup> Asset recycling is often considered a form of P3. In some circumstances, it could also be considered a form of value capture. Since this Manual focuses on value capture techniques that generally have a link to real estate markets or locational advantages, asset recycling is not discussed here. FHWA's website contains informational material on asset recycling at:

[https://www.fhwa.dot.gov/ipd/fact\\_sheets/value\\_cap\\_asset\\_recycling.aspx](https://www.fhwa.dot.gov/ipd/fact_sheets/value_cap_asset_recycling.aspx).

Federal and State funding and financing options typically have limitations on the extent to which they can pay for project costs.

Federal and State disbursements often require a State or local match, typically in an 80:20 ratio. Sometimes, State or local governments may struggle to secure the required matching funds. In these cases, the following Federal-aid matching strategies are available:

- **Tapered Match:** Matching funds can be tapered according to a payment schedule, with a smaller percentage provided in earlier years and a larger percentage in later years. For example, an agency could provide a 10-percent match in the first fiscal year and a 30-percent match in the subsequent fiscal year.

<sup>13</sup> Jake Varn and Sarah Kline, "How could "asset recycling" work in the United States?" Bipartisan Policy Center, June 8, 2017, <https://bipartisanpolicy.org/blog/how-could-asset-recycling-work-in-the-united-states/>.

<sup>14</sup> "US 36 Express Lanes," Colorado Department of Transportation, <https://www.codot.gov/projects/archived-project-sites/US36ExpressLanes>.

- **Soft Match:** A soft match involves using private donations or in-kind contributions such as land or materials to meet local match requirements.
- **Toll Credits:** States that have independent tolling authorities can use the expenditures on other public highway facilities as toll credits to fund their local match on other highways projects. To utilize this tool, the State must pass an annual maintenance of effort test.<sup>15</sup>
- **State Infrastructure Banks (SIBs):** Agencies can also borrow matching funds from SIBs. For example, the Missouri Transportation Finance Corporation loaned \$11.1 million to serve as local match for bus acquisitions for the Bi-State Development Agency. North Carolina used \$2.0 million from its SIB to support rehabilitation of a downtown Greensboro rail depot and as local match for bus acquisition, and the Kansas Transportation Revolving Fund loaned the local match portion on at least 11 Kansas DOT projects.<sup>16</sup>
- **Value Capture:** Some value capture techniques can help meet local match requirements, as further discussed in the next section. In fact, for some agencies this can be one of the benefits of value capture.

Federal financing mechanisms may also be limited in the extent to which they can finance project costs. Transportation Infrastructure Finance and Innovation Act (TIFIA) loans, for example, can generally finance up to 33 percent of eligible project costs.<sup>17</sup> The specific requirements of Federal and State grants and programs present opportunities for integrating more innovative techniques like value capture in the funding plan.

When considering the most appropriate financing sources, risk profile and cost are also important considerations.

The lowest cost financing source is usually the available revenues for the project, known as “pay-as-you-go.” In terms of pure financing costs, general obligation tax-exempt bonds often have the lowest costs. While lower cost, the decision to issue such tax-exempt bonds needs to be weighed against the opportunity cost of utilizing the public’s bonding capacity and leveraging its credit rating. Non-recourse tax-exempt and taxable revenue bonds, P3 financing, and non-recourse bank loans may be used instead, although they may have higher financing costs. In addition, some of these instruments, such as P3 financing, may leverage other cost-saving benefits, including specialized construction and operations expertise.

Innovative finance loans, such as the U.S. Department of Transportation (USDOT) Build America Bureau’s TIFIA and Railroad Rehabilitation and Improvement Financing (RRIF) loans, as well as SIB loans, can also offer rates and terms that are lower and more attractive than general obligation or non-recourse tax-exempt debt.

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<sup>15</sup> “Federal-aid Matching Strategies,” Federal Highway Administration, Center for Innovative Finance Support, [https://www.fhwa.dot.gov/ipd/finance/tools\\_programs/federal\\_aid/matching\\_strategies/toll\\_credits.aspx](https://www.fhwa.dot.gov/ipd/finance/tools_programs/federal_aid/matching_strategies/toll_credits.aspx).

<sup>16</sup> Federal Highway Administration, *Innovative Finance Quarterly*, Fall 2005, [https://www.fhwa.dot.gov/ipd/finance/resources/general/if\\_quarterly/fall\\_05.aspx](https://www.fhwa.dot.gov/ipd/finance/resources/general/if_quarterly/fall_05.aspx).

<sup>17</sup> Unless the sponsor provides a compelling justification for up to 49%. “TIFIA Credit Program Overview,” U.S. Department of Transportation, <https://www.transportation.gov/tifia/tifia-credit-program-overview>.

The development of a funding and financing plan is typically an iterative process, which during the early stages may involve several different options.

As Figure 3 shows, a financial plan that is developed at an earlier stage of project planning can include several different technical scopes based on levels of expansion and/or different mixes of funding sources and financing mechanisms. Later during the planning process, as the technical scope is confirmed and funding sources are committed, the financial plan will be confirmed. Practitioners should have qualified staff and/or outside advisors to assist with the development of the financial plan, to ensure that all possible options are being considered.

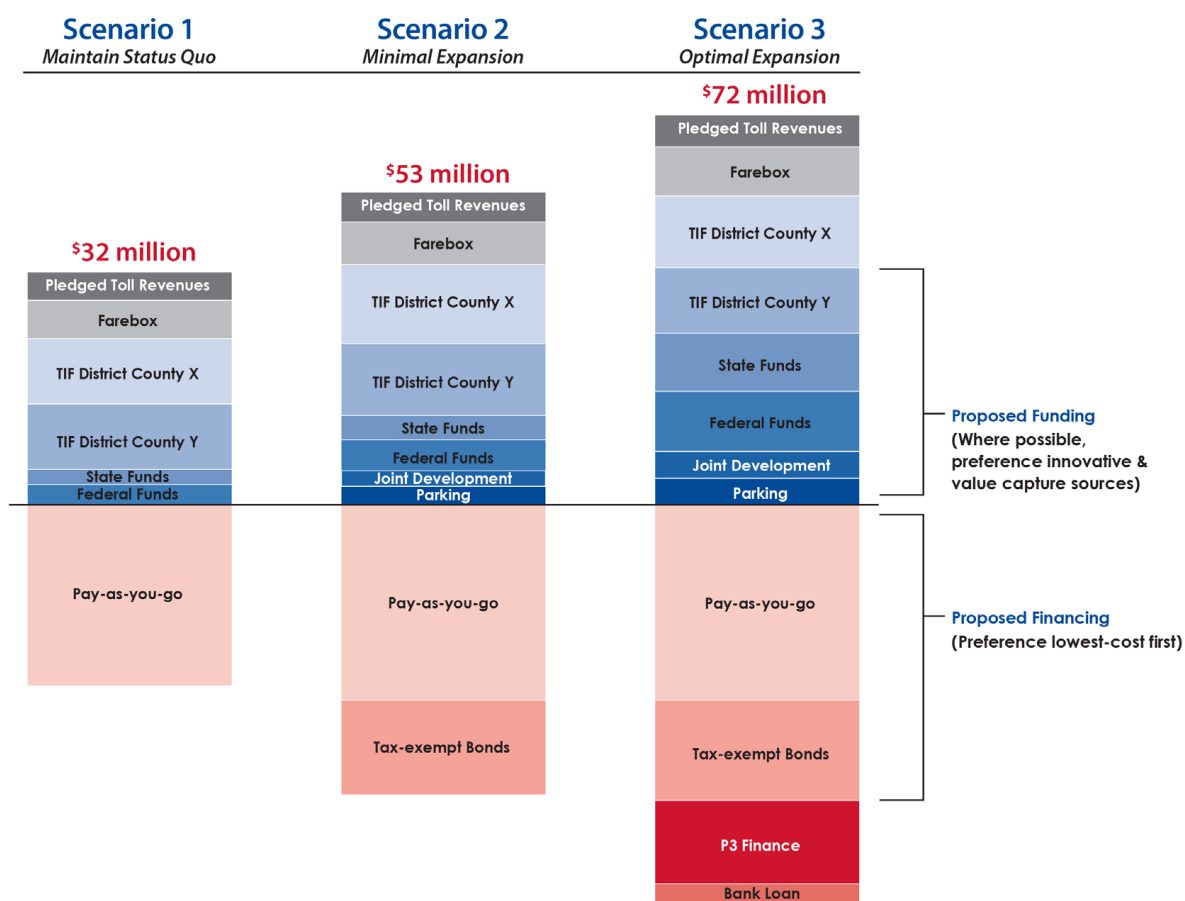


Figure 3. Indicative Financial Plan Based on Project Cost

## 2.2 Assessing the Potential for Value Capture

As mentioned, value capture may complement more traditional funding sources but is not a substitute. In addition, not all projects may be appropriate for value capture. This section provides considerations for practitioners assessing whether value capture techniques may be able to add value to their project. Chapter 3 provides further decision-making tools and considerations for selecting a value capture technique.

Value capture techniques may be appropriate when they can facilitate public policy objectives.

Value capture techniques differ in the extent to which they can meet different public policy objectives. Policy objectives related to promoting equity through beneficiary-pays models may be advanced through value capture techniques such as special assessment districts (SADs). Policy objectives related to addressing social inequalities through the creation of affordable housing may be met by including affordable housing requirements in respective plans or zoning ordinances that cover the project. Policy objectives related to improving the efficiency of land use in urban areas might favor joint development techniques such as air rights, which can involve the construction of residential or commercial developments above existing highways. Additionally, land value taxes might be appropriate when governments are already considering broader tax reforms. Examining public policy objectives may help practitioners narrow the range of appropriate value capture techniques for their project.

Examining the enabling legislation for value capture techniques can also help narrow the range of those that are applicable.

As further described in Chapters 4 through 9 of the Manual, most value capture techniques require enabling legislation. While a project is in the planning stages, practitioners should focus on value capture techniques for which enabling legislation is in place and for which legal hurdles can be overcome within a reasonable timeframe.

Value capture is more likely to succeed when considered early in the planning process.

Value capture techniques should ideally be considered early during project preparation, when changes to design and technical scope are still possible. Choosing to include value capture techniques during later stages risks making planning changes difficult to implement. This might result in less flexibility to optimize the integration of land use and transportation assets in order to maximize revenues from value capture. Although allowing for flexibility in design and planning is important, practitioners should ensure that the original economic rationale for the project is not compromised and that key public policy objectives, like purpose and need, continue to be met.

Expected community support will influence the success of a value capture technique.

For most value capture techniques, community support is critical. Business improvement districts (BIDs) are typically developed at the initiative of businesses. Special assessment districts (SADs) are often established based on a petition by property owners. When community members clearly support the use of value capture, it often is more likely to succeed. Value capture techniques such as TIF may compete for funding from existing public needs, such as schools and other government services, and therefore may be harder to implement. Practitioners are encouraged to involve stakeholders at the early design stages to obtain their input and address mitigation measures, where appropriate.

The geography of the planned project, including whether it is urban or rural, will likely impact value capture potential.

Some value capture techniques are more appropriate in densely populated urban areas. For example, air rights, in which a development is built above an existing highway, is most likely to succeed in urban areas

where demand is high and land value justifies such a high-cost investment. Rural areas may benefit from other techniques, such as developer contributions, that are not as dependent on quickly rising property values.

Practitioners should consider whether value capture techniques could assist financing or plug a funding gap.

Assessing project funding and financing needs can also help practitioners determine where value capture techniques might fit within their funding plan. Some techniques provide revenue sources that can be dedicated to repaying financing. For example, if a transportation project is financed through general obligation bonds or loans from the TIFIA or RRIF programs, revenues from value capture may be used for repayment in certain circumstances. This provides a mechanism through which value capture can be used to finance construction cost obligations. Many techniques, however, require a “backstop” in order to obtain financing such as the issuance of bonds or obtaining bank loans. When this backstop relies on general obligation revenues or other revenue sources with high credit ratings, it reduces the extent to which financing is truly based on value capture risk.

Local match needs can provide a case for including value capture in the funding plan.

Value capture can be leveraged to meet local match requirements for Federal or State disbursements. Most value capture techniques can be used for this purpose, although those that result in revenues during the later stages of the project will still require a financing vehicle to make local matching funds available immediately. In Virginia, the Dulles Rail Transportation Improvement District used SAD funds to meet local match requirements needed to leverage Federal funds. In Texas, transportation reinvestment zone (TRZ) funds were also used to meet the local match. More information on these two cases is provided in the Appendix.

As discussed, value capture is rarely the sole project funding source, but is typically part of a funding and financing plan that includes several sources. Chapter 3 will help practitioners select one or more specific value capture techniques based on the characteristics of the transportation project.



### 3 OVERVIEW OF VALUE CAPTURE TECHNIQUES

At this stage, practitioners have a preliminary funding and financing plan in place and will have assessed the potential for value capture based on the high-level considerations presented in Chapter 2. Chapters 4 through 9 are intended to help practitioners select the most appropriate value capture technique for their project based on each technique's unique features—such as its revenue potential or ease of implementation—and on project-specific characteristics.

This chapter provides an overview of the 12 value capture techniques highlighted in this Manual. A brief definition of each technique is provided in Table 2. The Manual groups the techniques into the following six main categories based on common characteristics:

- **Developer contributions:** The category includes techniques that generate revenues for an infrastructure project by collecting fees from private developers. It includes two techniques: impact fees and negotiated exactions.
- **Transportation utility fees (TUFs):** TUFs are unique in that they generate revenues by levying fees on property owners or building occupants. This value capture technique is categorized separately.
- **Special taxes and fees:** This category includes techniques that generate revenues by imposing or capturing an additional tax or fee. It includes four techniques: special assessment districts (SADs), business improvement districts (BIDs), sales tax districts, and land value taxes.
- **Tax increment financing (TIF):** This category covers techniques that capture the incremental growth of tax revenue in a specific area or district.
- **Joint development:** This category includes techniques in which governments work together with developers to improve the use of land above or near an infrastructure development. It includes

three techniques: at-grade joint development, above-grade joint development (also known as air rights), and utility joint development.

- **Naming rights:** Naming rights involves an agency selling the rights to name infrastructure to a private company.

Table 3 summarizes some of the main features of each of the value capture techniques. This table is intended to help practitioners narrow the range of appropriate value capture techniques for their project. The table indicates whether the technique is more commonly used to fund capital expenditures or O&M costs, the extent to which the technique has been successfully used for highway and road projects in the United States, whether it is more commonly used to fund or finance projects (see Chapter 2 for a detailed discussion of funding versus financing), the revenue potential of the technique, the timing of the revenue (whether funds are received somewhat immediately or delayed), the ease of implementation, and the degree of political acceptance. Further information on each value capture technique—including specific political, economic, market, legal, and implementation considerations—is provided in Chapters 4 through 9.

Table 4 and Table 5 also provide an overview of the case studies presented in the Manual to allow practitioners to easily reference real-world examples where specific value capture mechanisms were successfully applied.



### 3.1 Overview of Value Capture Techniques and Main Features

Table 2 presents the value capture techniques discussed in the Manual and provides a short definition.

Table 3 provides an overview of some of their key features.

**Table 2. Overview of Value Capture Categories, Techniques, and Definitions**

| Category                           | Technique                      | Definition  |
|------------------------------------|--------------------------------|---|
| <b>Developer Contributions</b>     | 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.       |
| <b>Transportation Utility Fees</b> | Transportation Utility Fees    | Fees paid by property owners or building occupants to a municipality based on estimated use of the transportation system.                             |
| <b>Special Taxes and Fees</b>      | Special Assessment Districts   | Fees charged on property owners within a designated district whose properties are the primary beneficiaries of an infrastructure improvement.         |
|                                    | Business Improvement Districts | Fees or levies charged on 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.  |
|                                    | Sales Tax Districts            | Additional sales taxes levied on all transactions or purchases in a designated area that benefits from an infrastructure improvement.                 |
| <b>Tax Increment Financing</b>     | Tax Increment Financing        | Charges that capture incremental property tax value increases from an investment in a designated district to fund or finance the investment.          |
| <b>Joint Development</b>           | 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 right-of-way.   |
| <b>Naming Rights</b>               | Naming Rights                  | A transaction that involves an agency selling the rights to name infrastructure to a private company.   |

**Table 3. Value Capture Techniques and Key Features**

| Technique   | Capital Expenditure or O&M | Use for Highways and Roads | Funding or Financing | Revenue Potential | Timing of Revenue Received | Ease of Implementation | Public Acceptance |
|---|----------------------------|----------------------------|----------------------|-------------------|----------------------------|------------------------|-------------------|
| <b>Impact Fees</b>  | Capital Expenditure        | Medium                     | Funding              | Medium            | Immediate                  | Simple                 | High              |
| <b>Negotiated Exactions</b>   | Capital Expenditure        | Medium                     | Funding              | Medium            | Immediate                  | Simple                 | High              |
| <b>Transportation Utility Fees</b>  | O&M                        | High                       | Funding              | Low               | Delayed                    | Moderate               | Medium            |
| <b>Special Assessment Districts</b>   | Capital Expenditure        | Low                        | Funding & Financing  | Medium / High     | Delayed                    | Moderate               | Medium            |
| <b>Business Improvement Districts</b>   | O&M and Capital            | Low                        | Funding              | Low               | Immediate                  | Moderate               | High              |
| <b>Land Value Taxes</b>   | Capital Expenditure / O&M  | Low                        | Funding              | High              | Delayed                    | Difficult              | Low / Medium      |
| <b>Sales Tax Districts</b>  | Capital Expenditure        | Medium                     | Funding & Financing  | High              | Delayed                    | Moderate               | Medium            |
| <b>Tax Increment Financing</b>  | Capital Expenditure        | Medium                     | Funding & Financing  | Medium / High     | Delayed                    | Moderate               | Medium            |
| <b>Joint Development (including at-grade, above-grade, and utility joint development)</b> | Capital Expenditure        | Medium                     | Funding & Financing  | Medium            | Immediate or delayed       | Simple / Moderate      | Medium            |
| <b>Naming Rights</b>  | Capital Expenditure / O&M  | Medium                     | Funding              | Low               | Immediate                  | Simple                 | Medium / High     |

Further considerations related to each value capture technique are provided in Chapters 4 through 9 of the Manual.

### 3.2 Guide to Examples and Case Studies

Table 4 provides an overview of the examples and case studies included in this Manual. Table 5 provides an overview of the same examples and case studies based on which mode is considered.

#### 3.2.1 Examples and Case Studies by Value Capture Technique

**Table 4. Implementation Manual Examples and Case Studies**

| Example or Case Study                                | Page         | Type of Value Capture Technique |                      |                             |                              |                                |                  |                     |                         |                   |             |         |               |  |
|--|--------------|---------------------------------|----------------------|-----------------------------|------------------------------|--------------------------------|------------------|---------------------|-------------------------|-------------------|-------------|---------|---------------|--|
|  |              | IMPACT FEES                     | NEGOTIATED EXACTIONS | TRANSPORTATION UTILITY FEES | SPECIAL ASSESSMENT DISTRICTS | BUSINESS IMPROVEMENT DISTRICTS | LAND VALUE TAXES | SALES TAX DISTRICTS | TAX INCREMENT FINANCING | JOINT DEVELOPMENT |             |         | NAMING RIGHTS |  |
|  |              |                                 |                      |                             |                              |                                |                  |                     |                         | AT-GRADE          | ABOVE-GRADE | UTILITY |               |  |
| Arapahoe County, CO, Rural Transportation Impact Fee | 36           | X                               |                      |                             |                              |                                |                  |                     |                         |                   |             |         |               |  |
| Atlanta BeltLine                                     | Appendix 141 |                                 |                      |                             |                              |                                |                  |                     | X                       |                   |             |         |               |  |
| Metropolitan Atlanta Rapid Transit Authority         | 93           |                                 |                      |                             |                              |                                |                  |                     |                         | X                 | X           |         |               |  |
| Bellevue, WA, Bel-Red Project                        | Appendix 151 | X                               |                      |                             |                              |                                |                  |                     |                         |                   |             |         |               |  |
| Bozeman, MT, Impact Fees Program                     | Appendix 157 | X                               |                      |                             |                              |                                |                  |                     |                         |                   |             |         |               |  |
| Chicago, IL, Tax Increment Financing Program         | 78           |                                 |                      |                             |                              |                                |                  |                     | X                       |                   |             |         |               |  |
| Colorado E-470                                       | Appendix 174 | X                               | X                    |                             |                              |                                |                  | X                   |                         |                   |             |         |               |  |

| Example or Case Study                              | Page         | Type of Value Capture Technique |                      |                             |                              |                                |                  |                     |                         |                   |             |         |               |
|--|--------------|---------------------------------|----------------------|-----------------------------|------------------------------|--------------------------------|------------------|---------------------|-------------------------|-------------------|-------------|---------|---------------|
|  |              | IMPACT FEES                     | NEGOTIATED EXACTIONS | TRANSPORTATION UTILITY FEES | SPECIAL ASSESSMENT DISTRICTS | BUSINESS IMPROVEMENT DISTRICTS | LAND VALUE TAXES | SALES TAX DISTRICTS | TAX INCREMENT FINANCING | JOINT DEVELOPMENT |             |         | NAMING RIGHTS |
|  |              |                                 |                      |                             |                              |                                |                  |                     |                         | AT-GRADE          | ABOVE-GRADE | UTILITY |               |
| Columbus, OH, The Cap at Union Station             | Appendix 164 |                                 |                      |                             |                              |                                |                  |                     |                         |                   | X           |         |               |
| El Paso, TX, Transportation Reinvestment Zones     | 81           |                                 |                      |                             |                              |                                |                  |                     | X                       |                   |             |         |               |
| Hays County, TX, Transportation Reinvestment Zones | Appendix 180 |                                 |                      |                             |                              |                                |                  |                     | X                       |                   |             |         |               |
| Los Angeles, CA, Business Improvement Districts    | 64           |                                 |                      |                             |                              | X                              |                  |                     |                         |                   |             |         |               |
| Los Angeles, CA, Streetcar                         | 55           |                                 |                      |                             | X                            |                                |                  |                     |                         |                   |             |         |               |
| Missouri Transportation Development Districts      | 73           |                                 |                      |                             |                              |                                |                  | X                   |                         |                   |             |         |               |
| Missouri U.S. 63 Sales Tax District                | Appendix 196 |                                 |                      |                             |                              |                                |                  | X                   |                         |                   |             |         |               |
| Ohio DOT Naming Rights Initiatives                 | 103          |                                 |                      |                             |                              |                                |                  |                     |                         |                   |             |         | X             |
| Oregon Transportation Utility Fees                 | 47           |                                 |                      | X                           |                              |                                |                  |                     |                         |                   |             |         |               |
| Osceola County, FL, Roadway and Bridge Program     | 36           | X                               |                      |                             |                              |                                |                  |                     |                         |                   |             |         |               |

| Example or Case Study   | Page         | Type of Value Capture Technique |                      |                             |                              |                                |                  |                     |                         |                   |             |         |               |  |
|---|--------------|---------------------------------|----------------------|-----------------------------|------------------------------|--------------------------------|------------------|---------------------|-------------------------|-------------------|-------------|---------|---------------|--|
|   |              | IMPACT FEES                     | NEGOTIATED EXACTIONS | TRANSPORTATION UTILITY FEES | SPECIAL ASSESSMENT DISTRICTS | BUSINESS IMPROVEMENT DISTRICTS | LAND VALUE TAXES | SALES TAX DISTRICTS | TAX INCREMENT FINANCING | JOINT DEVELOPMENT |             |         | NAMING RIGHTS |  |
|   |              |                                 |                      |                             |                              |                                |                  |                     |                         | AT-GRADE          | ABOVE-GRADE | UTILITY |               |  |
| Pittsburgh and Pennsylvania Split Rate Tax                        | 69           |                                 |                      |                             |                              |                                | X                |                     |                         |                   |             |         |               |  |
| Reno, NV, I-80 Air Rights Project                                 | 92           |                                 |                      |                             |                              |                                |                  |                     |                         |                   | X           |         |               |  |
| San Francisco, CA, Transportation Sustainability Fee              | 37           | X                               |                      |                             |                              |                                |                  |                     |                         |                   |             |         |               |  |
| Seattle, WA, Streetcar  | 56           |                                 |                      |                             | X                            |                                |                  |                     |                         |                   |             |         |               |  |
| Utah DOT Broadband Program  | 98           |                                 |                      |                             |                              |                                |                  |                     |                         |                   |             | X       |               |  |
| Virginia Route 28 Special Tax District                            | Appendix 199 |                                 |                      |                             | X                            |                                |                  |                     |                         |                   |             |         |               |  |
| Washington, DC and Virginia Silver Line/Dulles Metrorail Corridor | Appendix 186 |                                 |                      |                             | X                            |                                |                  |                     |                         |                   |             |         |               |  |
| Washington, DC, New York Avenue Metro Station                     | 54           |                                 |                      |                             | X                            |                                |                  |                     |                         |                   |             |         |               |  |
| Washington, DC, Capitol Crossing                                  | Appendix 169 |                                 |                      |                             |                              |                                |                  |                     |                         |                   | X           |         |               |  |
| Yankton County, SD, Tax Increment Financing                       | 80           |                                 |                      |                             |                              |                                |                  |                     | X                       |                   |             |         |               |  |

### 3.2.2 Examples and Case Studies by Mode and Sector

**Table 5. Examples and Case Studies by Sector**

| Example or Case Study                                | Page         | Mode of Transportation |                  |                                    | Development Type |          |       |
|--|--------------|------------------------|------------------|------------------------------------|------------------|----------|-------|
|  |              | HIGHWAY AND ROAD       | TRANSIT AND RAIL | MULTI-MODAL AND OTHER <sup>1</sup> | URBAN            | SUBURBAN | RURAL |
| Arapahoe County, CO, Rural Transportation Impact Fee | 36           | X                      |                  |                                    |                  |          | X     |
| Atlanta BeltLine                                     | Appendix 141 |                        | X                | X                                  | X                |          |       |
| Metropolitan Atlanta Rapid Transit Authority         | 93           |                        | X                |                                    | X                |          |       |
| Bellevue, WA, Bel-Red Project                        | Appendix 151 | X                      |                  | X                                  | X                | X        |       |
| Bozeman, MT, Impact Fees Program                     | Appendix 157 | X                      |                  |                                    |                  | X        | X     |
| Chicago, IL, Tax Increment Financing Program         | 78           |                        | X                | X                                  | X                |          |       |
| Colorado E-470                                       | Appendix 174 | X                      |                  |                                    |                  | X        | X     |
| Columbus, OH, The Cap at Union Station               | Appendix 164 | X                      |                  |                                    | X                |          |       |
| El Paso, TX, Transportation Reinvestment Zones       | 81           | X                      |                  |                                    | X                | X        |       |
| Hays County, TX, Transportation Reinvestment Zones   | Appendix 180 | X                      |                  |                                    |                  | X        |       |

| Example or Case Study                                | Page         | Mode of Transportation |                  |                                    | Development Type |          |       |
|--|--------------|------------------------|------------------|------------------------------------|------------------|----------|-------|
|  |              | HIGHWAY AND ROAD       | TRANSIT AND RAIL | MULTI-MODAL AND OTHER <sup>1</sup> | URBAN            | SUBURBAN | RURAL |
| Los Angeles, CA, Business Improvement Districts      | 64           |                        |                  | X                                  | X                |          |       |
| Los Angeles, CA, Streetcar                           | 55           |                        | X                |                                    | X                |          |       |
| Missouri Transportation Development Districts        | 73           | X                      |                  |                                    |                  | X        | X     |
| Missouri U.S. 63 Sales Tax District                  | Appendix 196 | X                      |                  |                                    |                  |          | X     |
| Ohio DOT Naming Rights Initiatives                   | 103          | X                      |                  |                                    | X                | X        | X     |
| Oregon Transportation Utility Fees                   | 47           | X                      |                  |                                    |                  | X        | X     |
| Osceola County, FL, Roadway and Bridge Program       | 36           | X                      |                  |                                    |                  | X        | X     |
| Pittsburgh and Pennsylvania Split Rate Tax           | 69           | X                      | X                | X                                  | X                | X        | X     |
| Reno, NV, I-80 Air Rights Project                    | 92           | X                      |                  |                                    | X                | X        |       |
| San Francisco, CA, Transportation Sustainability Fee | 37           |                        | X                |                                    | X                |          |       |
| Seattle, WA, Streetcar                               | 56           |                        | X                |                                    | X                |          |       |
| Utah DOT Broadband Program                           | 98           | X                      |                  |                                    |                  | X        | X     |
| Virginia Route 28 Special Tax District               | Appendix 199 | X                      |                  |                                    |                  | X        | X     |

| Example or Case Study   | Page         | Mode of Transportation |                  |                                    | Development Type |          |       |
|---|--------------|------------------------|------------------|------------------------------------|------------------|----------|-------|
|   |              | HIGHWAY AND ROAD       | TRANSIT AND RAIL | MULTI-MODAL AND OTHER <sup>1</sup> | URBAN            | SUBURBAN | RURAL |
| Washington, DC and Virginia Silver Line/Dulles Metrorail Corridor | Appendix 186 |                        | X                |                                    | X                | X        |       |
| Washington, DC New York Avenue Metro Station                      | 54           |                        | X                | X                                  | X                |          |       |
| Washington, DC, Capitol Crossing                                  | Appendix 169 | X                      |                  |                                    | X                |          |       |
| Yankton County, SD, Tax Increment Financing                       | 80           | X                      |                  |                                    |                  |          | X     |

<sup>1</sup> Multi-modal includes multiple modes of transportation, including bike lanes and pedestrian facilities.





## 4 DEVELOPER CONTRIBUTIONS

This chapter provides an overview of two value capture techniques—impact fees and negotiated exactions—that involve a payment from the developer to the public agency to fund a portion of the infrastructure or services required for a new development.

### 4.1 Impact Fees



Agencies may consider impact fees when a new development creates demands on existing infrastructure or municipal services.

**Opportunities:** Impact fees are economically efficient, relatively easy to implement, and create little public resistance. Because they are collected up front, public agencies can access these funds earlier than with incremental tax charges or property tax revenues.

**Challenges:** Impact fees are unlikely to fund the entire cost of the infrastructure or service required. In addition, it can be challenging to estimate the incremental cost impact of a new development. Impact fees also sometimes face resistance from developers and landowners.

### 4.1.1 Overview

**Definition:** Impact fees are charges imposed on developers by municipalities to help fund additional public services, infrastructure, or transportation facilities required due to the new development.

**Alternative terms:** In California<sup>18</sup> and Washington, impact fees are often known as mitigation fees; in Florida, as mobility fees; in Oregon, as system development charges; in Minnesota, as service availability charges; and in North Carolina, as facility fees. In States such as Kansas, Colorado, and Tennessee, impact fees are referred to as adequate facility taxes or excise taxes.<sup>19</sup> Developer contributions are also sometimes known as fair share fees.

### 4.1.2 Sectoral Uses

**Highways and Roads:** Impact fees are common in highways and roads, as new residential or office developments create new demands on the connecting transportation networks. Development impact fees played a key role in funding the State Route 241 and 73 toll roads in Orange County, CA.<sup>20</sup>

**Transit:** Impact fees are not as common in transit. Transit impact fee examples include Portland, OR's transportation system development charge;<sup>21</sup> Broward County, FL's transit concurrency fee;<sup>22</sup> Seattle, WA's transportation mitigation payment;<sup>23</sup> and Aventura, FL's transportation mitigation impact fee.<sup>24</sup>

**Other Sectors:** Many counties and cities use impact fees to fund basic municipal services, including water and sewer, parks and recreation, police and fire protection services, street improvements, and schools and libraries.

### 4.1.3 Implementation and Funding

**Structure and Timing of Funds:** Impact fees are generally one-time charges. They are typically imposed as a condition of approval of the development, either when the building or occupancy permit is issued.<sup>25</sup>

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<sup>18</sup> "Mitigation Fees for New Development," Marina, CA, Municipal Code,

**Source and Use of Funds:** The developer proposing the new development pays the impact fee with the intention that these are used to fund infrastructure or services required as a result of the development. Impact fees are typically used for capital expenses, although some jurisdictions allow them to be used for maintenance, repair, or replacement of existing facilities.<sup>26</sup>

**Management of Funds:** Impact fees may be managed by different agencies, depending on purpose. Those related to the water or sewer system may need to be set by utility commissions, while transportation impact fees may be managed by transportation or public works departments. Impact fees should be segregated from the general fund and deposited in dedicated accounts and be used solely for allowable purposes.

**Ease of Implementation:** As one-time, standardized charges included in the development process, impact fees typically have low implementation costs. Nevertheless, an implementing agency should possess a robust framework for estimating the costs of development on existing infrastructure and services. This may be easier for greenfield projects<sup>27</sup> than for existing developments that create incremental cost impacts.

#### 4.1.4 Legal Considerations

**Enabling Legislation:** While some States have explicit enabling legislation for impact fees, others have upheld municipalities' authority to charge fees. As of 2015, 29 States had enabling legislation.<sup>28</sup>

**Legal Basis:** Impact fees should be reasonably related to the cost of service provided; they must have a "rational nexus" and "rough proportionality" to development impacts.<sup>29 30</sup> As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

#### 4.1.5 Market Considerations

**Challenges:** Impact fees could discourage development by raising the cost. This could result in developers moving their projects—and the accompanying job growth and development—to jurisdictions

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<sup>26</sup> For example, in "Transit Impact Fee: Enabling Statutes and Equity Concerns," Mathur and Smith found that several jurisdictions had also used the fee to fund O&M costs.

<sup>27</sup> A greenfield project refers to a new infrastructure investment. Typically, a greenfield investment is made on unused land, with no constraints from prior buildings or facilities. In contrast, a brownfield project refers to an investment (an upgrade, modification, etc.) on existing infrastructure facilities.

<sup>28</sup> Florida municipalities, for example, applied impact fees for many years without State legislation, which was finally enacted in 2006. Maryland, Tennessee, and North Carolina do not have enabling acts, therefore legislative authority is required each time a municipality seeks to charge impact fees. Clancy Mullen, *State Impact Fee Enabling Acts*, Duncan Associates, January 2015, [http://impactfees.com/publications%20pdf/state\\_enabling\\_acts.pdf](http://impactfees.com/publications%20pdf/state_enabling_acts.pdf).

<sup>29</sup> These concepts come from case law, including the U.S. Supreme Court decisions in *Koontz v. St. Johns River Water Management District*, 570 U.S. 595, 614 (2013), *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987), and *Dolan v. City of Tigard*, 512 U.S. 374 (1994). The "rational nexus" test requires that the local government demonstrate a reasonable connection between the need for the additional infrastructure investment, the cost of that additional infrastructure, and the benefit that accrues as a result of the additional infrastructure. The "rough proportionality" test requires demonstrating that the exaction or fee charged is proportional to the impact of the proposed development.

<sup>30</sup> Mathur and Smith, "Transit Impact Fee: Enabling Statutes and Equity Concerns."

where fees are lower. Impact fees may be easier to justify in robust real estate markets, where developers may be more willing to pay an additional levy to build a highly profitable development.

**Opportunities:** Because impact fees are applied similarly across all new developments within a jurisdiction, they help create a level playing field and predictability and certainty for the developer. In addition, research has shown that impact fees increase the supply of buildable land for developers. Without impact fees, municipalities may not be able to make the required investments in infrastructure to accommodate growth. Impact fees allow municipalities to pay for necessary water, sewer, and transportation infrastructure to open new parcels of land development.<sup>31</sup> In jurisdictions where impact fees have not been used before, municipalities have an opportunity to ensure that such charges are well received by developers by undertaking market research on how such charges were structured and received in other jurisdictions and by organizing discussions with developers to obtain their views related to the structuring of the fee.

#### **4.1.6 Political Considerations**

**Challenges:** The public may not be aware of the benefits and challenges of impact fees, including by whom they are paid and for what they are intended, and they could be perceived as a new tax.

**Opportunities:** Because impact fees do not directly affect existing taxpayers, they are less likely to create public resistance. Impact fees may be appropriate in jurisdictions in which taxpayers oppose property tax increases on current residents to pay for new infrastructure.

#### **4.1.7 Economic and Equity Considerations**

**Challenges:** Impact fees do not necessarily address social equity concerns, such as whether the infrastructure or services will benefit low-income residents. Since they tend to limit property taxes on existing residents, they may have an indirect equity benefit. Implementing agencies may need to study these effects as part of the project development process.

**Opportunities:** Although impact fees may not fully offset new infrastructure costs, they directly link those paying for and those receiving benefits, promoting economic efficiency and equity. Impact fees also foster timely investments into local community infrastructure. Oregon's impact fees, known as transportation system development charges (TSDC), illustrate how impact fees can promote multimodal and equity considerations. TSDC revenues may only be used to fund projects that add capacity to the transportation system; benefit all parts of the city; meet the needs of diverse communities; and reflect projects that citizens want to see built.<sup>32</sup> In jurisdictions where impact fees have not been used before, municipalities

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<sup>31</sup> Arthur Nelson and Mitch Moody, "Paying for Prosperity: Impact Fees and Job Growth," The Brookings Institution, June 1, 2003, [www.brookings.edu/research/paying-for-prosperity-impact-fees-and-job-growth/](http://www.brookings.edu/research/paying-for-prosperity-impact-fees-and-job-growth/).

<sup>32</sup> Portland, OR's TSDC program generated over \$129 million between 1997 and 2017 for projects including new street connections, intersections, sidewalks, bike lanes, and transit enhancements. TSDC funds are not allowed to fund preventive maintenance, pothole repairs, minor operational changes, etc. For more information, refer to Portland's website: <https://www.portlandoregon.gov/transportation/article/668271>.

have an opportunity to involve stakeholders in the structuring of the fee to ensure that revenues promote equity and community considerations.

#### 4.1.8 Case Studies

The following examples highlight the successful use of impact fees to fund road infrastructure in rural and suburban environments.

##### Example 1: Osceola County Roadway and Bridge Program<sup>33</sup>

Osceola County, FL, has taken advantage of transportation impact fees to facilitate construction of key bridge and roadway infrastructure for three decades. The fees were implemented in 1990 to address rapid growth in the county that had led to severe traffic issues and citizen frustration. The fees were suspended in 2011 and repealed in 2012 in response to an economic slowdown. In 2015, as growth picked up, the fees were re-implemented under the name “mobility fees,” and changes were made to allow for faster collection. Transportation impact fees were collected once a building was occupied, while impact fees were collected when a building permit was issued. Therefore, governments could make roadway improvements before the arrival of new traffic. As the county’s economy improved, mobility fees also increased. Between 2017 and 2018, single family home mobility fees increased from \$4,585 to \$8,671 and multifamily mobility fees increased from \$3,203 per unit to \$6,058 per unit.<sup>34</sup>

Osceola County has leveraged mobility fees to streamline the delivery of critical transportation infrastructure through its \$1 billion roadway and bridge program, which is entirely funded by impact fees. The county delivered 11 roadway projects, including 13 bridges, amounting to \$350 million in capital expenditures within a year by using value capture funding in tandem with alternative contracting methods. This program has been touted as one of the most advanced in the United States and has allowed Osceola County to multiply the speed at which it delivers roadway infrastructure by 11 times. The program returned \$80 million to the local economy in the first 4 months of construction and returned \$36 million to the county’s budget.

##### Example 2: Arapahoe County Rural Transportation Impact Fee<sup>35 36</sup>

Impact fees are used throughout Colorado, as enabled by State legislation. Counties follow certain restrictions to implement impact fees:

- They must be adopted by the legislature of a municipality.
- They must apply to many classes of properties.
- There must be a rational nexus between development and the new infrastructure need.

<sup>33</sup> Ken Atkins, “Case Study – Osceola County, Florida.” *EDC-5: Technical Support for FHWA Initiative to Promote Adoption of Value Capture to Deliver Highway Projects – Albany Summit*, October 24, 2018.

<sup>34</sup> Brian McBride, “Mobility Fees for Osceola Developers Nearly Double,” *Osceola News-Gazette*, January 12, 2018.

<sup>35</sup> “Rural Transportation Impact Fee,” Arapahoe County, CO, 2016, <https://www.arapahoegov.com/1629/Rural-Transportation-Impact-Fee>.

<sup>36</sup> “Transportation Impact Fees in Colorado,” Arapahoe County, CO, n.d., <https://www.arapahoegov.com/1668/Transportation-Impact-Fees-in-Colorado>.

- They can only be used for new and necessary capital facilities, not deficiencies, unless those deficiencies are related to a new development.
- Developers cannot be charged multiple times for the same improvement.
- Impact fees can be waived for affordable or employee housing.

Faced with rapid development, the Arapahoe County Board of Commissioners adopted a Rural Transportation Impact Fee in April 2017. The fee applies for unincorporated east county land and is collected upon permit issuance. Fees for residential developments range from \$1,503 for a dwelling of 1,000 or fewer square feet to \$3,118 for a dwelling of 2,901 square feet. Fees per 1,000 square feet for commercial, office, and industrial buildings are \$3,806, \$2,223, and \$769, respectively. The county estimates it will generate \$77 million for rural roads over 24 years from impact fees.

### Example 3: San Francisco's Transportation Sustainability Fee

The city of San Francisco has several types of impact fees. The transportation sustainability fee is a citywide impact fee that addresses impacts by non-residential uses on the transit system.<sup>37 38 39</sup>

The transportation impact development fee, the precursor to the transportation sustainability fee, was first established in 1981 after a rise in office developments in the 1970s increased the demand for transit. Although the transportation impact development fee was initially limited to funding growth in demand during peak hours and through the downtown, it was eventually applied to the entire city. The original transportation impact development fee preceded California's Mitigation Fee Act, which subsequently established a framework for identifying the impacts of new development on services and adopted impact fees to address those impacts. In 2015, the transportation impact development fee was replaced by the more expansive transportation sustainability fee, which is part of the city's broader transportation sustainability program.

Revenue generated by the transportation sustainability fee is directed to the San Francisco Municipal Transportation Agency (SFMTA) and can be used to fund capital and operating expenses imposed by new developments. An ordinance establishes the categories for which the revenues can be used and the percentage of revenues allocated to each category. SFMTA, along with other agencies, develops a 5-year spending plan for each of the categories identified in the ordinance.

<sup>37</sup> San Francisco Planning Department, *An Overview of Development Impact Fees*, December 2014, [default.sfplanning.org/publications\\_reports/DirectorsBulletin01\\_Impact\\_Fees-April2016.pdf](http://default.sfplanning.org/publications_reports/DirectorsBulletin01_Impact_Fees-April2016.pdf).

<sup>38</sup> San Francisco Planning Department, *New Planning Code Transit Impact Development Fee Update*, January 2013, [www.sfplanning.org/ftp/files/legislative\\_changes/new\\_code\\_summaries/120523\\_TIDF\\_Transportation\\_Impact\\_Development\\_Fee\\_Update.pdf](http://www.sfplanning.org/ftp/files/legislative_changes/new_code_summaries/120523_TIDF_Transportation_Impact_Development_Fee_Update.pdf).

<sup>39</sup> San Francisco Municipal Transportation Agency, *Transportation Sustainability Fee (TSF) – Increase*, October 2017, [www.sftransportation2045.com/sites/default/files/pdfs/Fact\\_Sheets/H.%20TSF%20Increase.pdf](http://www.sftransportation2045.com/sites/default/files/pdfs/Fact_Sheets/H.%20TSF%20Increase.pdf).

The fee is assessed in proportion to the size of the new development, with residential, non-residential, and production distribution paying \$7.74, \$18.04, and \$7.61 per square foot, respectively.<sup>40</sup> The fee is adjusted annually in accordance with California's Annual Infrastructure Construction Cost Inflation Estimate. To increase or modify the transportation sustainability fee, the San Francisco Board of Supervisors would need to approve an ordinance to amend the planning code. Impact fees are assessed by the planning department and collected upon permit issuance. The city code section establishing the transportation sustainability fee requires the SFMTA to update an economic feasibility study every 3 years, examining the impacts of the fee on development throughout the city. The city is also required to update its nexus study for the transportation sustainability fee every 5 years.<sup>41</sup>

The transportation sustainability fee represents a small component of SFMTA's revenues and can be an unreliable funding source given year-to-year fluctuations. Nevertheless, the fee provides an important additional revenue stream. As compared to the transportation impact development fee, which generated about \$24 million annually on average, the transportation sustainability fee is projected to add about \$14 million per year, or \$1.2 billion over 30 years.<sup>42</sup>

#### 4.1.9 Decision-Making Tool

A decision-making tool covering impact fees is shown in Section 4.2.9.

## 4.2 Negotiated Exactions



**Agencies may consider negotiated exactions when a new development creates demands on existing infrastructure or municipal services.**

**Opportunities:** Negotiated exactions are generally economically efficient and face less public resistance compared to other means of raising revenue. Because they are usually collected up front, public agencies can access the funds earlier.

**Challenges:** Negotiating favorable terms requires experience and resources. Depending on the negotiated terms, exactions may not cover the entire cost of infrastructure or services.

<sup>40</sup> San Francisco Planning Department, *Transportation Sustainability Fee*, July 2015, [default.sfplanning.org/plans-and-programs/emerging\\_issues/tsp/tsp\\_TSF\\_Fact\\_Sheet\\_072115.pdf](https://default.sfplanning.org/plans-and-programs/emerging_issues/tsp/tsp_TSF_Fact_Sheet_072115.pdf).

<sup>41</sup> San Francisco Municipal Transportation Agency, *San Francisco Transportation Sustainability Fee Nexus Study*, May 2015, [https://default.sfplanning.org/plans-and-programs/emerging\\_issues/tsp/TSF\\_NexusStudy\\_May2015.pdf](https://default.sfplanning.org/plans-and-programs/emerging_issues/tsp/TSF_NexusStudy_May2015.pdf).

<sup>42</sup> San Francisco Planning Department, *INVEST: Transportation Sustainability Fee*, <https://sf-planning.org/invest-transportation-sustainability-fee>.

### 4.2.1 Overview

**Definition:** Negotiated exactions are charges imposed on developers to mitigate the cost of public services or infrastructure required as a result of the new development.

**Alternative terms:** Developer contributions or cash proffers.

### 4.2.2 Sectoral Uses

**Highways and Roads:** Negotiated exactions are often used to fund local roads. Colorado's E-470 toll road, described in Appendix Section VI, is an example of highway developer land contributions.

**Transit:** Negotiated exactions-funded transit stations include the Portland, OR, Airport MAX Red Line; New York City Moynihan Train Hall; Washington, DC, NoMa-Gallaudet U Metrorail Station; and Alexandria, VA, Potomac Yard Metrorail Station.<sup>43</sup>

**Other Sectors:** Negotiated exactions have been used to fund a range of infrastructure and services, including local roads, sidewalks, streetlights, and local water and sewer lines.

### 4.2.3 Implementation and Funding

**Structure and Timing of Funds:** Negotiated exactions can be structured as one-time cash payments imposed as a condition for planning approvals or as in-kind contributions of land or infrastructure.<sup>44</sup> Because the implementing agency receives the funds up front, it can use them earlier than if it had to wait for incremental revenues generated as part of the development.

**Source and Use of Funds:** Exactions are paid by the developer responsible for the new development. Exactions are intended to contribute on-site infrastructure such as roads, parks, or other public infrastructure or services required due to the new development. Negotiated exactions usually fund capital costs.

**Management of Funds:** Exactions should be segregated from the general fund and deposited in dedicated accounts. They should be used solely for the purposes for which the fee is established.

**Ease of Implementation:** Negotiated exactions may be more challenging to implement than impact fees, because the implementing agency should have the skills to negotiate favorable terms with the developer. Successful use of exactions also requires that an implementing agency possess a robust framework for

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<sup>43</sup> "Negotiated Exactions," Federal Highway Administration, Center for Innovative Finance Support, [www.fhwa.dot.gov/ipd/value\\_capture/defined/negotiated\\_exactions.aspx](http://www.fhwa.dot.gov/ipd/value_capture/defined/negotiated_exactions.aspx).

<sup>44</sup> Sharada Vadali, *Using the Economic Value Created by Transportation to Fund Transportation* (National Academies Press, 2014), <https://doi.org/10.17226/22382>.



estimating the cost implications of the proposed development on infrastructure and services. This may be easier for greenfield projects than for existing developments that have incremental impacts.

#### 4.2.4 Legal Considerations

**Enabling Legislation:** Similar to impact fees, local governments must have the statutory authority to impose exactions under State law. This authority can be granted explicitly through enabling legislation or through statutes. Some courts have upheld the concept of implied authority where enabling legislation for exactions did not exist.<sup>45</sup>

**Legal Basis:** Negotiated exactions require evidence of a rational nexus and proportionality between the exaction and the services or infrastructure provided.<sup>46</sup> As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

#### 4.2.5 Market Considerations

**Challenges:** Exactions could discourage developers by raising development costs. This could result in developers moving their projects—and the accompanying job growth and development—to jurisdictions where fees are lower or do not exist. That exactions may not be applied similarly across projects may also reduce market interest. Finally, exactions may be easier to justify in robust markets, where developers may be more willing to pay an additional fee to build a profitable development.

**Opportunities:** Exactions allow municipalities to pay for necessary infrastructure, potentially creating opportunities to open land for development.<sup>47</sup> In jurisdictions where negotiated exactions have not been used before, municipalities have an opportunity to ensure that such charges are well received by undertaking market research on how such charges were structured and received in other jurisdictions and by organizing discussions with developers to obtain their views related to the structuring of the fee.

#### 4.2.6 Political Considerations

**Challenges:** Because exactions are not standardized and are negotiated on a case-by-case basis, they could be subject to accusations of misuse if fees are not subject to a transparent and accountable process.

**Opportunities:** Like impact fees, negotiated exactions typically face limited public resistance, because they shift the costs of new improvements to developers.<sup>48</sup> Exactions may therefore be appropriate in jurisdictions where property tax increases, SADs, or TIF techniques face public opposition.

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<sup>45</sup> Jennifer Evans-Cowley, *Development Exactions: Process and Planning Issues*, Lincoln Institute of Land Policy Working Paper, 2006, [www.impactfees.com/publications/pdf/evans-cowley-planning.pdf](http://www.impactfees.com/publications/pdf/evans-cowley-planning.pdf).

<sup>46</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>47</sup> Nelson and Moody, "Paying for Prosperity."

<sup>48</sup> Robert Johns et al., *Harnessing Value for Transportation Investment*. Minnesota University Center for Transportation Studies, 2009.

#### 4.2.7 Economic and Equity Considerations

**Challenges:** Negotiated exactions do not automatically address social equity concerns, such as whether the infrastructure or services will benefit low-income residents. Implementing agencies may need to study these effects as part of the project development process.

**Opportunities:** Negotiated exactions promote economic efficiency by allocating the costs of a new development to the developer that generates them. They can also promote equity considerations by providing benefits to the developer, the local government, and residents.<sup>49</sup> Similar to impact fees, negotiated exactions also present the opportunity to increase perceived equity among stakeholders. For new projects, municipalities have an opportunity to organize discussions with stakeholders during the early planning stages to ensure charges are structured to benefit the local community.

#### 4.2.8 Case Studies

For examples where negotiated exactions have been used, refer to the Portland, OR, Airport MAX Red Line; New York City Moynihan Train Hall; Washington, DC, NoMa-Gallaudet U Metrorail Station; and Alexandria, VA, Potomac Yard Metrorail Station.<sup>50</sup>

#### 4.2.9 Decision-Making Tool

Implementing agencies can use the decision-making tool in Table 6 to assess the appropriateness of impact fees and/or negotiated exactions.

**Table 6. Decision-Making Tool for Impact Fees and Negotiated Exactions**

| Focus Area | Questions for Decision Makers   | Possible Next Steps  |
|------------|---|--|
| MARKET     | <ul style="list-style-type: none"> <li>Have impact fees or negotiated exactions been used in the State or local government area?</li> </ul> | <ul style="list-style-type: none"> <li>If yes, research how impact fees or negotiated exactions were received in other jurisdictions. Consider the extent to which circumstances may be similar or dissimilar.</li> <li>If no, undertake market research to understand how impact fees or negotiated exactions were received in other jurisdictions. Organize discussions with developers to obtain their views related to the fee.</li> </ul> |
|            | <ul style="list-style-type: none"> <li>Has there been significant new growth in the region?</li> </ul>                                      | <ul style="list-style-type: none"> <li>If yes, then impact fees and negotiated exactions are appropriate and should be considered.</li> </ul>  |

<sup>49</sup> Johns et al., *Harnessing Value for Transportation Investment*.

<sup>50</sup> Federal Highway Administration, "Negotiated Exactions."

| Focus Area          | Questions for Decision Makers  | Possible Next Steps  |
|---------------------|--|--|
| LEGAL               | <ul style="list-style-type: none"> <li>Is there a provision in the enabling legislation to consider impact fees or negotiated exactions for all modes of transportation and for the mode being actively considered?</li> </ul>   | <ul style="list-style-type: none"> <li>If yes, then impact fees or negotiated exactions may be appropriate.</li> </ul>   |
|                     | <ul style="list-style-type: none"> <li>Is there enough evidence of a reasonable link (rational nexus) between the impact fee or exaction and the cost of the new services or infrastructure?</li> <li>Is benefit expected to accrue to the development from the fee?</li> </ul>  | <ul style="list-style-type: none"> <li>If no or unclear, then consider procuring legal advice on whether the fee and project can be altered to meet the essential nexus, rough proportionality, and expected benefit criteria.</li> </ul>  |
| POLITICAL           | <ul style="list-style-type: none"> <li>Has political resistance to property tax increases been an issue in the jurisdiction?</li> </ul>  | <ul style="list-style-type: none"> <li>If yes, then impact fees may be more effective, because they typically do not face as much public resistance compared to other revenue raising options.</li> </ul>  |
|                     | <ul style="list-style-type: none"> <li>Is the public aware of the benefits and challenges of impact fees or exactions?</li> </ul>  | <ul style="list-style-type: none"> <li>Although impact fees and exactions are typically not controversial, to maximize public support, consider educating the public on the technique and the projects they are expected to help fund. Involve stakeholders and community members in discussions on how the revenues will be used to promote equity considerations.</li> </ul> |
| ECONOMIC AND EQUITY | <ul style="list-style-type: none"> <li>Do the impact fees or exactions align with the local government's economic and public policy objectives?</li> <li>Is there a direct link between those paying and those receiving benefits from new infrastructure?</li> </ul>  | <ul style="list-style-type: none"> <li>If yes, consider creating public awareness about the possible community benefits of impact fees or exactions. Also consider how results will be assessed and measured.</li> <li>If no, consider the extent to which other techniques may be more appropriate to meeting the agency's public policy goals.</li> </ul>                    |
| IMPLEMENTATION      | <ul style="list-style-type: none"> <li>Has the implementing agency considered the impact fee or exaction's geographic scope?</li> <li>Has the agency considered the fee structure, including how and when the fee will be charged?</li> <li>Has the implementing agency considered how funds will be managed and kept separate?</li> </ul> | <ul style="list-style-type: none"> <li>If no, consider which steps should be taken to ensure a clear geographic scope, fee structure, and fee management prior to implementation.</li> </ul>   |



## 5 TRANSPORTATION UTILITY FEES

This chapter provides an overview of transportation utility fees that can fund operations and maintenance.



**Agencies may consider transportation utility fees to fund road maintenance and where property owners accept the cost calculation formula.**

**Opportunities:** Transportation utility fees may be more equitable and economically efficient than funding maintenance through property taxes.

**Challenges:** Transportation utility fees may face a significant administrative burden up front and may struggle to garner political support.

### 5.1 Overview

**Definition:** Transportation utility fees (TUFs) are periodic fees paid by a property owner or a building occupant to a municipality based on use of the transportation system. TUFs treat the transportation system like a utility, charging property owners or occupants for their share of transportation costs based

on system use. “Use” is defined as the generation of trips, estimated by the Institute of Transportation Engineers,<sup>51</sup> and fees are based on an estimated number of trips generated by different land uses.<sup>52</sup>

**Alternative Terms:** TUFs are also referred to as transportation maintenance fees, street maintenance fees, road use fees, pavement maintenance utility fees, or street utility fees.<sup>53</sup>

## 5.2 Sectoral Uses

**Highways and Roads:** TUFs are typically used to fund road maintenance, especially for local roads that are ineligible for Federal-aid highway funding. For example, the city of Newberg, OR, adopted a TUF in 2017 to close a \$1.9 million annual funding gap to maintain its streets.<sup>54</sup> In May 2017, Highland City, UT, created a transportation utility fund dedicated to the operation, improvement, maintenance, and rehabilitation of roads.<sup>55</sup>

**Transit:** TUFs can be used along transit corridors to fund O&M expenses. In 2011, Corvallis, OR, passed a transit operations fee, eliminating fares. It added \$2.75 to single-family residential customers' bills each month.<sup>56</sup>

**Other Sectors:** TUFs are not used in sectors beyond roads and transit.

## 5.3 Implementation and Funding

**Structure and Timing of Funds:** TUFs are paid on an ongoing basis, often monthly.<sup>57</sup> <sup>58</sup> They are imposed on an entire area and continue in perpetuity.<sup>59</sup> Fees are determined by the number of parking spaces, square footage, or gross floor area.

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<sup>51</sup> “Transportation Utility Fees,” Federal Highway Administration, Center for Innovative Finance Support, [https://www.fhwa.dot.gov/ipd/value\\_capture/defined/transportation\\_utility\\_fees.aspx](https://www.fhwa.dot.gov/ipd/value_capture/defined/transportation_utility_fees.aspx).

<sup>52</sup> Carole Turkley, “Promises and Pitfalls of Transportation Utility Fees,” *Presentation to the TRB 5th International Conference on Surface Transportation Financing*, July 11, 2014, [http://onlinepubs.trb.org/onlinepubs/conferences/2014/Finance/30.Turley\\_Carole.pdf](http://onlinepubs.trb.org/onlinepubs/conferences/2014/Finance/30.Turley_Carole.pdf).

<sup>53</sup> Turkley, “Promises and Pitfalls of Transportation Utility Fees.”

<sup>54</sup> FHWA, “Transportation Utility Fees.”

<sup>55</sup> For more information, refer to the website of Highland City, UT: <https://www.highlandcity.org/index.aspx?NID=399>.

<sup>56</sup> National Academies of Sciences, Engineering, and Medicine, *Implementation and Outcomes of Fare-Free Transit Systems*. Transportation Research Board, 2012, Washington, DC, <https://doi.org/10.17226/22753>.

<sup>57</sup> FHWA, “Transportation Utility Fees.”

<sup>58</sup> Turkley, “Promises and Pitfalls of Transportation Utility Fees.”

<sup>59</sup> Reid Ewing, “Transportation Utility Fees,” *Government Finance Review*, 1994, <https://www.thefreelibrary.com/Transportation+utility+fees.-a016086832>.

**Source and Use of Funds:** TUFs are levied on property owners or occupants of the property, including renters. They are intended to fund O&M expenses.

**Management of Funds:** TUFs should be dedicated to the purpose for which they were established and cannot be considered general revenue. They are generally collected with other utility fees, unless the municipality decides to set up a different administrative system. One of the benefits of collecting a TUF with other utility fees is that municipalities can discontinue water and other utility services for failure to pay the full utility bill, which is a very strong enforcement mechanism.<sup>60</sup>

In Clackamas County, OR, officials initially decided to establish a countywide tax billing system for their proposed transportation maintenance fee. However, municipalities were not satisfied with the central management of the system. As a result, they used existing, local utility billing systems to administer the TUF.<sup>61</sup>

**Ease of Implementation:** When existing billing systems are used, local governments theoretically incur no additional costs beyond initial costs associated with classifying land uses and, in some cases, establishing accounts for properties that do not yet receive services.<sup>62</sup> Experience shows that local governments may still suffer an administrative burden. Clackamas County undertook a large number of surveys and data collection to effectively define land usage at parcel levels so that they could be applied to the data categories reported by the Institute of Transportation Engineers.<sup>63</sup>

## 5.4 Legal Considerations

**Enabling Legislation:** Although some States may uphold local governments' ability to charge fees, in most, State enabling legislation is required.

**Legal Basis:** Some courts have upheld the TUF as a fee and not a tax.<sup>64</sup> A good practice is to draft a TUF to be reasonably related to use of the service and dedicated to the specific purpose for which the charges were levied. As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

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<sup>60</sup> Ewing, "Transportation Utility Fees."

<sup>61</sup> Carl Springer and John Ghilarducci, "Transportation Utility Fee: Oregon Experience," *Transportation Research Record: Journal of the Transportation Research Board*, vol. 1895, no. 1, January 2004, pp. 15–24.

<sup>62</sup> Ewing, "Transportation Utility Fees."

<sup>63</sup> Springer and Ghilarducci, "Transportation Utility Fee: Oregon Experience."

<sup>64</sup> Ewing, "Transportation Utility Fees."

## 5.5 Market Considerations

**Challenges:** TUFs require broad stakeholder acceptance of the methodology for pricing and assessing fees. In cases where stakeholders have challenged the pricing methodology, the fees have had to be rolled back.

**Opportunities:** By linking fees to transportation system usage, a TUF may avoid the market distortions that using property taxes for transportation create.<sup>65</sup>

## 5.6 Political Considerations

**Challenges:** TUFs may be subject to political resistance. First, because fee schedules group land-use codes into broad categories, inequities can arise in fee categories (see the case of Tualatin, OR, in Example 4). Fee payers may also appeal fee calculations.<sup>66</sup> Second, other levels of government or institutions such as schools may resist a TUF, arguing that they are a disguised tax or that they should be exempt from such fees.<sup>67</sup> Third, disagreements may arise over which maintenance elements can be funded by the fee. In Portland, OR, a TUF program adopted in 2001 was withdrawn the same year after a successful voter referendum petition. One of the criticisms was that some activities, such as tow charges for abandoned vehicles, were not directly related to road maintenance.<sup>68</sup>

TUFs may be perceived by residents as just another tax. For a TUF to be successful, public outreach and acceptance is critical. This is particularly the case in States where local residents can refer actions to a general vote. Two larger jurisdictions in Oregon (Eugene and Springfield) withdrew TUF ordinances the same year they were adopted following referenda.<sup>69</sup>

**Opportunities:** Because TUFs can be considered relatively equitable, as discussed in the following Section 5.7, this may help create public support for the technique.

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<sup>65</sup> Deven Carlon et al., "Transportation Utility Fees: Possibilities for the City of Milwaukee," Public Affairs Workshop, Domestic Issues, Public Affairs 869, Spring 2007. The use of property taxes to fund transportation is often seen to create a market distortion by not linking the tax paid with the actual usage of the system. In cities where residential properties account for the vast majority of all properties, for example, residents may pay a greater share of transportation funding via property taxes than warranted by their infrastructure use, which could discourage home ownership in the city.

<sup>66</sup> Ewing, "Transportation Utility Fees." In Tualatin, OR, payers of fees may appeal the land-use classification or square footage assigned to a property. In Austin, TX, they may appeal on various bases, including "actual traffic counts" that contradict the city's estimates. Port Orange, FL, also includes various bases for appeals.

<sup>67</sup> Ewing, "Transportation Utility Fees."

<sup>68</sup> Ewing, "Transportation Utility Fees."

<sup>69</sup> Ewing, "Transportation Utility Fees."

## 5.7 Economic and Equity Considerations

**Challenges:** TUFs may be considered inequitable, because 1) road use is estimated rather than metered and 2) estimates are based on averages for broad property classes.<sup>70</sup> Use can be difficult to estimate and justify, particularly for different income levels.

**Opportunities:** TUFs may be considered more equitable than property taxes. With a property tax, a percentage of road users do not pay due to tax-exempt status, while every local traffic generator contributes to supporting the road system through TUFs. They may also advance economic efficiency by linking the cost of maintaining transportation with the derived benefits.<sup>71</sup>

## 5.8 Case Studies<sup>72</sup>

Example 4 highlights two Oregon local governments' struggles to apply TUFs and the public resistance to fee setting.

### Example 4: Oregon Transportation Utility Fees Offset Funding Shortfalls in Gas Taxes

Oregon was the first State to adopt a gas tax in 1918. By 1984, the gas tax was 8 cents per gallon, increasing to 24 cents by 1993. The rapid rise in gas tax in the late 1980s and early 1990s may have adversely affected the public's perception of equity. The gas tax rate remained unchanged for almost 25 years, despite numerous attempts to raise it. In 2017, it was raised by 10 cents over a period of several years.

During a period of several decades, the State suffered from decreasing maintenance revenues and increasing maintenance needs. Between 1993 and 2003, revenues from the gas tax grew by 13 percent, while vehicle miles traveled increased by 21 percent. Oregon cities and counties responded by either attempting to raise their local share of gas taxes—in most cases, unsuccessfully—or by enacting a TUF. Initially, TUFs were implemented by small cities with populations between 2,000 and 10,000. Eventually, larger jurisdictions followed.

**Case 1: Clackamas County struggles to build public support for the transportation maintenance fee.** Clackamas County, OR, is a county the size of the State of Delaware, with a population of 345,000. In 1995 and 1997, voters rejected increasing the gas tax. Seeking other means to close the funding gap in road maintenance, in 2002 Clackamas County officials began working together with five municipalities to develop a transportation maintenance fee. The process included three stages: 1)

<sup>70</sup> Ewing, "Transportation Utility Fees."

<sup>71</sup> FHWA, "Transportation Utility Fees."

<sup>72</sup> For example, properties owned by religious institutions or governments are exempt from paying property tax.



screening whether existing maintenance activities would be eligible for funding through the fee, 2) estimating the number of average weekday trips for each development, and 3) establishing fee categories to facilitate implementation. Fee revenues required to eliminate the maintenance funding gap were estimated to be \$20 million. With maintenance expected to be funded by maintenance fee revenues, a portion of the gas tax revenue was to be redirected toward deferred capital projects or other high-priority capital investments. Although the proposal was defeated in a 2004 ballot, support for the transportation maintenance fee was still significantly higher than for increases in gas taxes, signaling a small victory for winning public support for transportation funding.<sup>73</sup>

The experience of Clackamas County resulted in some lessons learned with regard to building public outreach for transportation maintenance fees, namely: 1) the purpose and need for a TUF can be a somewhat complex message to convey to the average potential user, 2) the most challenging groups to educate are usually those that will pay the highest fees, specifically larger retail and business centers, and 3) education campaigns may be complicated by a diversity in maintenance needs and fees when there are several participating cities.<sup>74</sup>

**Case 2: In Tualatin, OR, a TUF creates resistance over inequities in fee categories.** Tualatin created six non-residential groups, plus an all-encompassing group, and applied the average trip-generation rate to various uses that fell within a broad range. A shopping center of 10,000 to 20,000 square feet was included in Group 4 and expected to pay a monthly fee of \$11.08 per 1,000 square feet. A center of 5,000 to 10,000 square feet was part of Group 5 and expected to pay a monthly fee of \$29.51 per 1,000 square feet. According to the Institute of Transportation Engineers' Trip Generation Manual, centers of the latter size generate approximately 27 percent more trips per 1,000 square feet. However, in this case, they were asked to pay almost three times as much.

Wholesalers in Medford, OR, rejected a new TUF, arguing that they should not have been lumped into a commercial land-use category with retailers that generate many more trips. A few weeks after its TUF was implemented, Medford had to add new land-use categories to its fee schedule.<sup>75</sup>

As a result of such inequities, some jurisdictions have somewhat arbitrarily capped commercial fees. For example, Austin, TX, capped its "traffic generation factor" at five times the residential rate. Food stores and healthcare facilities were charged equal amounts per acre of development, despite food stores generating almost four times as many trips per acre. An arbitrary cap or allocation may reduce political pressure, but it also jeopardizes the fact that a fee should be reasonably related to the payer's use of city streets. Some jurisdictions in other States have dealt with this issue by setting fees differently based on the type of road, e.g., arterials, collectors, local roads. Port Orange, FL, distinguishes among the different functions of roads and allocates costs separately.<sup>76</sup>

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<sup>73</sup> Springer and Ghilarducci, "Transportation Utility Fee: Oregon Experience."

<sup>74</sup> Ewing, "Transportation Utility Fees."

<sup>75</sup> Ewing, "Transportation Utility Fees."

<sup>76</sup> Ewing, "Transportation Utility Fees."



## 6 SPECIAL TAXES AND FEES

This chapter provides an overview of techniques that involve special taxes and fees, including special assessment districts (SADs), business improvement districts (BIDs), land value taxes, sales tax districts, and tax increment financing (TIF).

### 6.1 Special Assessment District



Agencies may consider special assessments especially when substantial funding is required for an infrastructure investment that is expected to generate property value increases property owners can tangibly recognize.

**Opportunities:** SADs may generate substantial revenues to fund and finance projects.

**Challenges:** SADs may require significant outreach, and implementation costs may be high.

#### 6.1.1 Overview

**Definition:** SADs are a funding technique under which a fee is charged on property owners within a designated district whose properties are the primary beneficiaries of an infrastructure improvement.

**Alternative Terms:** SADs are also known as benefit assessment districts (California), local improvement districts (Washington), community improvement districts (Missouri), downtown improvement districts, transportation improvement districts (Virginia, Ohio), and special service areas (Illinois).

### 6.1.2 Sectoral Uses

**Highways and Roads:** Roadway improvements are an authorized use of special assessments. In Michigan, for example, the Road Commission for Oakland County created an assessment district that enabled property owners along residential county roads to repave their streets. Property owners were allowed a 10-year period to pay off their assessments.<sup>77</sup> Another example is the Route 28 Highway Transportation Improvement District in Northern Virginia, as described in Appendix Section X.

**Transit:** In the 1980s, cities such as Los Angeles, CA, and Washington, DC started using special assessments to finance new rail projects. Seattle, WA, and Portland, OR, have also used special assessments to finance streetcars and light rail. In Portland and Seattle, assessments paid for 17 percent<sup>78</sup> and 50 percent of the capital costs of streetcar projects, respectively.<sup>79</sup> Fairfax and Loudoun counties in Virginia funded one-fifth of the \$5.7 billion Dulles Metrorail extension through assessment fees, as discussed in Appendix Section VIII.

**Other Sectors:** Assessment districts can be used for water systems, sewer systems, waste disposal and collection, public parks, street lighting, and the maintenance of sidewalks and bicycle paths, among others.<sup>80</sup>

### 6.1.3 Implementation and Funding

**Structure and Timing of Funds:** Assessment fees are based on real estate valuation, including property value, parcel size, street frontage and use, and other characteristics as shown in Sidebar 4.<sup>81</sup> Fees are often tiered to reflect the fact that properties closer to an improvement experience greater benefit than those that are farther away. The value obtained by property owners as a result of the improvement is typically measured in reductions in travel time and travel costs.<sup>82</sup> Assessment charges are usually

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<sup>77</sup> "Special Assessment District Paving Program," Road Commission for Oakland County, MI, November 2008, [myfoxbay.com/RCOCSAD\\_Brochure resized.pdf](http://myfoxbay.com/RCOCSAD_Brochure resized.pdf).

<sup>78</sup> Seattle Department of Transportation and Parsons Brinckerhoff, "Seattle Streetcar Network and Feasibility Analysis, June 30, 2004, [brooklynrail.net/images/new\\_brooklyn\\_streetcar/ppt/docs/Seattle\\_Streetcar\\_Report\\_063004.pdf](http://brooklynrail.net/images/new_brooklyn_streetcar/ppt/docs/Seattle_Streetcar_Report_063004.pdf).

<sup>79</sup> Shishir Mathur, "Special Assessment District's Ability to Fund Transit: Lessons from Project-Level Analysis," *Transportation Research Record* 2417, no. 1 (2014): 103-110. <https://doi.org/10.3141/2F2417-11>.

<sup>80</sup> Independence Township, Oakland County, MI, *A Citizen's Guide to Special Assessment Districts (SADs)*, July 2015, [www.indetwp.com/document\\_center/Assessing/Citizen\\_s\\_Guide\\_to\\_Special\\_Assessment\\_Districts\\_1.pdf](http://www.indetwp.com/document_center/Assessing/Citizen_s_Guide_to_Special_Assessment_Districts_1.pdf).

<sup>81</sup> Mathur, "Special Assessment District's Ability to Fund Transit."

<sup>82</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

collected annually. In some cases, property owners have the option to pay the fees up front or over a longer period.

#### Sidebar 4. Methods for Assessing SAD Fees

- The **benefits assessed** or **increased value method** estimates the increase in property value to calculate the assessment amount.
- The **zone method** uses proximity to the amenity to determine the assessment amount. For example, properties may be divided into zones depending on infrastructure proximity, with the fee rate increasing with greater proximity.
- The **area method** makes assessments proportional to the building area or to the size of the land parcel on which the property is located.<sup>83</sup>

**Source and Use of Funds:** Taxes are typically levied on businesses, with residential property exempted. Assessment fees are typically used to close funding gaps in capital and maintenance budgets.<sup>84</sup> Special assessments offer a stable revenue source and can amount to significant revenues. Implementing agencies can spend assessment funds as they are collected (pay-as-you-go) or use assessment-backed bonds to fund the project (pay-as-you-use), as described in Chapter 13. The latter allows assessment fees to finance a project's capital costs. To ensure that assessment revenues do not decline in real dollars, fees may include an escalation rate that may approximate the interest on the bonds or the consumer price index.<sup>85 86</sup>

**Management of Funds:** Special assessments are collected in property tax bills. Therefore, municipalities may still apply assessments to fund or finance infrastructure even if they have reached their property tax limits.<sup>87</sup> Fees are usually required to be segregated into a separate fund that can only be drawn upon for project-related costs.

**Ease of Implementation:** Similar to TUFs, municipalities can use existing collection and enforcement processes to collect assessment fees, incurring little to no additional costs.<sup>88</sup> Implementing SADs is easier when the majority of land within the designated area is held by a few landowners. Negotiating required agreements with numerous small parcel owners can be costly and ineffective.

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<sup>83</sup> Mathur, "Special Assessment District's Ability to Fund Transit."

<sup>84</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>85</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>86</sup> Mathur, "Special Assessment District's Ability to Fund Transit."

<sup>87</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>88</sup> Vadali et al., *Guidebook to Funding Transportation through Land Value Return and Recycling*.

### 6.1.4 Legal Considerations

**Enabling Legislation:** Special assessments are authorized in all 50 States, either under explicit enabling legislation or under State constitutional provisions.<sup>89</sup> Approval is also required by a majority of the affected property owners.<sup>90</sup> In many jurisdictions, the creation of an SAD requires an ordinance by the city or town council after a majority of the landowners within the proposed district submits a petition requesting that an assessment district be created, or, after the council passes a resolution stating its intention to form a SAD.<sup>91</sup>

**Legal Basis:** For SADs, 1) the type of property expected to benefit from the infrastructure improvement must be specified, 2) there must be reasonable nexus or demonstrable relationship between the improvement and the enhanced real estate value within the district, and 3) the geographic area must be defined and justified.<sup>92</sup> As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

The assessment fee should also be proportional to the special benefit received. The “special benefit” is calculated by taking the difference in the value of property before and after the improvement. The difference, measured in percentage terms, should be greater than the overall rise in property values in the jurisdiction. The assessment on a property within the SAD cannot be greater than the special benefit that the property ultimately receives.<sup>93</sup>

A unique characteristic of a SAD is that it typically enjoys a legal benefit known as the “presumption of validity.” This means that it is more challenging and typically also more expensive for citizens to appeal an assessment fee than to appeal an *ad valorem*<sup>94</sup> property tax. There may only be limited windows during which special assessments can be appealed.<sup>95</sup>

**Federal Requirements:** Agencies utilizing these mechanisms, which wish to maintain Federal eligibility, must meet Federal requirements, including property management and Uniform Act requirements. These are discussed in Section 12.3.

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<sup>89</sup> “Special Assessments: An Introduction,” Federal Highway Administration, [https://www.fhwa.dot.gov/ipd/fact\\_sheets/value\\_cap\\_special\\_assessments.aspx](https://www.fhwa.dot.gov/ipd/fact_sheets/value_cap_special_assessments.aspx).

<sup>90</sup> Vadali et al., *Guidebook to Funding Transportation through Land Value Return and Recycling*.

<sup>91</sup> For example, the municipal code of the City of Grand Ledge, MI, (§ 44-1 Initiation of Special Assessment Projects) states that “A special assessment project may be commenced by resolution of the Council on its own initiative, or by initiatory petitions signed by owners of not less than 51% of the property to be assessed for the project.”

<sup>92</sup> Vadali et al., *Guidebook to Funding Transportation through Land Value Return and Recycling*.

<sup>93</sup> “The Seattle Waterfront Local Improvement District (LID),” Miller Nash Graham & Dunn Attorneys at Law, October 30, 2013, [www.millernash.com/the-seattle-waterfront-local-improvement-district-lid-10-30-2013/](http://www.millernash.com/the-seattle-waterfront-local-improvement-district-lid-10-30-2013/).

<sup>94</sup> An ad valorem tax is “a tax that is calculated according to value of property, based on an assigned valuation of a piece of real estate or personal property.” Legal Information Institute, [https://www.law.cornell.edu/wex/ad\\_valorem\\_tax](https://www.law.cornell.edu/wex/ad_valorem_tax).

<sup>95</sup> In Michigan, there are only a few windows during which special assessments can be appealed—after the formation or modification of the district or shortly after a special assessment roll has been confirmed. Once these appeal windows have closed, the presumption of validity begins and it becomes very challenging to appeal a special assessment. Joseph M. Turner, “Michigan Property Taxation – Distinguishing between Special Assessments and an Ad Valorem Tax,” *Michigan Assessor*, June 2004, pp. 35–38, <http://www.michiganpropertytax.com/distinguishingfeatures2004.htm>.

### 6.1.5 Market Considerations

**Challenges:** Assessment revenues face real estate market risks, which are particularly important when they are used to back bond financing.

**Opportunities:** Assessment revenues are generally less volatile than tax increment financing revenues. The U.S. capital markets are more likely to accept bonds secured primarily or solely by SAD revenues. For more detail, refer to the Dulles Metrorail case study in Appendix Section VIII.

### 6.1.6 Political Considerations

**Challenges:** Approval by a majority of property owners is needed to establish a SAD. Significant resources are often required to build local support, requiring the benefits to be obvious and apparent.

**Opportunities:** SADs can be a useful tool to create local support. As shown in the case of the Washington, DC, Metropolitan Area Transit Authority (see Example 5), and Los Angeles, CA, streetcar (see Example 6) dedicated non-profit entities can be formed to promote the project to stakeholders and property owners. The commitment can then be used to leverage Federal and State funds.<sup>96</sup>

### 6.1.7 Economic and Equity Considerations

**Challenges:** SADs may be subject to equity concerns. Property owners within the district may argue that it is inequitable that their neighbors outside the district or future residents are not required to pay the fee, even though they partially benefit from the infrastructure improvement. The impact of assessment fees on lower income residents' ability to pay should also be carefully considered.

**Opportunities:** Assessment districts may promote economic efficiency by placing the burden of funding the project on the project's beneficiaries. They may also be considered more equitable if the fee rate is proportionate to the property's distance from the infrastructure facility, such that properties that experience a greater benefit pay more and vice versa. Exemptions or discounts can also be imposed to reduce the burden on low-income or senior households.

### 6.1.8 Case Studies

Washington, DC's Metropolitan Area Transit Authority (Example 5) illustrates how a new transit station funded through a SAD resulted in a significant rise in property values and increased sales. It also shows how local non-profit entities can help build local support for a project funded through a SAD.

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<sup>96</sup> Mathur, "Special Assessment District's Ability to Fund Transit."

### Example 5: A DC Non-Profit Works to Support a SAD

In the 1990s, the area north of Massachusetts Avenue in Washington, DC, primarily consisted of empty freight rail yards, abandoned buildings, and vacant lots. The population of 6,000 had a median income of \$23,396, with 24 percent of residents living below the poverty level. The Washington Metropolitan Area Transit Authority's Red Line passed through the area, which was located between Union Station and Rhode Island Avenue stations but did not have a stop. In 1998, urban planners identified the area as a prime location for development, giving it the name "NoMa."

After a feasibility study confirmed the station's viability, local landowners became interested in the project. However, significant outreach efforts were still required. The DC Department of Housing and Community Development's New York Avenue Task Force (later named Action 29 – New York Avenue Metro Station Corporation) led the outreach efforts, which included monthly meetings with stakeholders such as business owners, government officials, community members, and environmental groups. Landowners were also educated on the impact of transit improvements on land values. The non-profit group received \$140,000 from the private parties and a \$100,000 grant from the district government to fund their outreach efforts, which resulted in significant enthusiasm for the project and almost no resistance.

In December 1998, private landowners agreed to contribute \$25 million to the project through a SAD. The remaining funds for the \$104 million project came from District of Columbia and State funds. In 2001, the District of Columbia Council passed the New York Avenue Metro Special Assessment Authorization Emergency Act to create the SAD and allow the District to collect the assessment. The assessment district was defined as commercially zoned parcels that were within 2,500 feet of the entrances to the station but not within 1,250 feet of Union Station. The tax was charged and collected on top of existing property taxes. In 2002, the District started collecting the taxes.

One of landowners' motivations to agree to the assessment district was the government's visible commitment to the area. The District of Columbia agreed to match the contribution by private landowners, contributing \$25 million and an additional \$6 million to improving planned bicycle and pedestrian trails.<sup>97</sup>

The New York Avenue-Florida Avenue-Gallaudet University Metro station opened in November 2004. As of September 2017, NoMa has over 13.2 million square feet of office space and more than 4,800 new apartments. More than 54,000 people work in NoMa every day, and more than 44,000 people live in the greater NoMa neighborhood.<sup>98</sup>

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<sup>97</sup> pbConsult, *New York Avenue-Florida Avenue Gallaudet University Metro Station: A Case Study*, Build America Transportation Investment Center (BATIC) Institute: An AASHTO Center for Excellence, 2011, [www.transportation-finance.org/pdf/funding\\_financing/funding/local\\_funding/New\\_York\\_Avenue\\_Case\\_Study.pdf](http://www.transportation-finance.org/pdf/funding_financing/funding/local_funding/New_York_Avenue_Case_Study.pdf).

<sup>98</sup> "NoMa Neighborhood," *NoMa Parks Foundation*, September 2017, [www.nomaparks.org/history](http://www.nomaparks.org/history).



The Los Angeles, CA, streetcar project in Example 6 illustrates the creation of a SAD to back a bond issued to finance project capital costs. It also illustrates the significant efforts required to build local support for a project funded through a SAD.

### Example 6: Los Angeles Streetcar Uses SADs for Funding

Since 2011, the city of Los Angeles, CA, and the LA Metro have worked on a streetcar system for downtown Los Angeles. The project consists of a 3.8-mile loop that serves many downtown districts and destinations. The \$290 million project is expected to be funded through a SAD, funds from the Los Angeles Department of Transportation, and a \$100 million Federal Transit Administration Small Starts grant.<sup>99 100 101 102</sup>

In December 2012, local businesses voted overwhelmingly in favor, by 72.9 percent, of a special tax assessment, officially called the “City of Los Angeles Community Facilities District No. 9 (Downtown Streetcar).”<sup>103</sup> The measure allows for a “not-to-exceed \$85 million community facilities district bond,” which includes \$62.5 million of construction capital as well as 2 years of capitalized interest, bond issuance costs, reserve fund, and other costs.<sup>104</sup>

Properties in the district will be taxed based on their proximity to the streetcar line and on their size. A 10,000 square-foot parcel directly on the route will pay \$4,490 annually, properties one or two blocks from the streetcar line will pay \$3,640, and properties three blocks away will pay \$1,730. Condominium units will be charged their unit’s proportional share of the underlying land, like the structure of most homeowner association fees. Most will pay less than \$100 a year, and the median will pay \$60 annually.<sup>105</sup>

In late 2016, 30 percent design or preliminary engineering was completed and the environmental impact report was approved and certified. In August 2018, the Los Angeles City Council approved the financial plan for the streetcar and, 3 months later, the State government approved its grant.<sup>106</sup>

<sup>99</sup> Bianca Barragan, “Downtown streetcar project glides forward with \$291M construction budget,” *Curbed Los Angeles*, August 17, 2018, <https://la.curbed.com/2018/8/17/17696458/downtown-streetcar-funding-metro-grants-transportation>.

<sup>100</sup> Elijah Chiland, “Downtown LA streetcar opening may be pushed to 2021,” *Curbed Los Angeles*, June 27, 2017, <https://la.curbed.com/2017/6/27/15878808/downtown-la-streetcar-opening-date-2021>.

<sup>101</sup> Bianca Barragan, “Price tag swells to \$291M for downtown Los Angeles streetcar,” *Curbed Los Angeles*, July 26, 2018, <https://la.curbed.com/2018/7/26/17614832/downtown-streetcar-construction-update-measure-m>.

<sup>102</sup> City of Los Angeles, *Report Back on Preliminary Engineering, Project Schedule, and New Independent Cost Estimate for the Los Angeles Streetcar Project*, Inter-Departmental Memorandum, June 14, 2017, [http://clkrep.lacity.org/online/docs/2011/11-0329-S12\\_rpt\\_CAO\\_06-16-2017.pdf](http://clkrep.lacity.org/online/docs/2011/11-0329-S12_rpt_CAO_06-16-2017.pdf).

<sup>103</sup> A Resolution of the Council of the City of Los Angeles to Establish a Community Facilities District and to Authorize the Levy of Special Taxes, Council of the City of Los Angeles, [http://cao.lacity.org/streetcar/3-Resolution%20of%20Intent\\_CFD9%20Downtown%20Streetcar.pdf.pdf](http://cao.lacity.org/streetcar/3-Resolution%20of%20Intent_CFD9%20Downtown%20Streetcar.pdf.pdf).

<sup>104</sup> City of Los Angeles, *Report Back on Preliminary Engineering, Project Schedule, and New Independent Cost Estimate for the Los Angeles Streetcar Project*.

<sup>105</sup> Adrian Glick Kudler, “Locals Approve Huge Leap Forward for Downtown Streetcar,” *Curbed Los Angeles*, December 4, 2012, <https://la.curbed.com/2012/12/4/10299402/locals-approve-huge-leap-forward-for-downtown-streetcar>.

<sup>106</sup> “OC and Federal Officials Celebrate Groundbreaking for Streetcar Project,” *CBS Los Angeles*, November 30, 2018, <https://losangeles.cbslocal.com/2018/11/30/oc-and-federal-officials-celebrate-groundbreaking-for-streetcar-project/>.



Proponents of the project have stated that the project is still on track to start service by July 2021.<sup>107 108 109</sup>

This case highlights the importance of strong public outreach for the establishment of a tax district. L.A. Streetcar Inc. (Streetcar or LASI), a non-profit formed to promote the project, worked with property owners for more than 4 years. They held outreach events to educate potential voters prior to the 2012 vote organizing meetings, presentations, a “Taste of Streetcar” event, and a screening at the new Grand Park. In August 2012, they launched a voter registration and streetcar education campaign related to the community facilities district. As a result of their efforts, the number of registered voters increased from 7,497 on May 21, 2012, to 10,283 on November 1, 2012—a 37.2 percent increase.<sup>110</sup> The general counsel for LASI noted that “the more people knew and understood the streetcar and why it’s important for Downtown, the more strongly they supported the streetcar.”<sup>111</sup> In the past year, however, support for the LA streetcar has waned, illustrating the impact of frequent project delays and funding shortfalls on public support for a project.<sup>112 113 114</sup>

In the case of the Seattle, WA, streetcar (Example 7), a SAD (known as a local improvement district in Washington) was able to fund up to half of project costs. This case shows how property owners can be provided with alternative structures for paying their assessment fees.

### Example 7: For Seattle Streetcar, Property Owners Choose Assessment Schedule

The Seattle South Lake Union Streetcar, which was completed in 2007, was part of a larger investment intended to revitalize the South Lake Union neighborhood in Seattle, WA. In 2005, property owners approved a local improvement district (LID). The district contributed \$26.2 million toward construction costs, almost half of the total project cost of \$56.4 million, with the remaining project funds coming from Federal and State funds.<sup>115</sup> An additional \$700,000 in assessment revenue was used to create,

<sup>107</sup> Barragan, “Downtown streetcar project glides forward with \$291M construction budget.”

<sup>108</sup> Chiland, “Downtown LA streetcar opening may be pushed to 2021.”

<sup>109</sup> Barragan, “Price tag swells to \$291M for Downtown Los Angeles streetcar.”

<sup>110</sup> In comparison, voter registration in the rest of downtown Los Angeles only increased 14.7% during that same period, while Los Angeles County registration only grew 6.7%. Neal Broverman, “Tons of Downtowners Want to Vote on Special Streetcar Tax,” *Curbed Los Angeles*, November 20, 2012, <https://la.curbed.com/2012/11/20/10303552/tons-of-downtowners-want-to-vote-on-special-streetcar-tax>.

<sup>111</sup> Steve Hymon, “Downtown L.A. Voters Approve Streetcar Tax by Landslide,” *The Source*, December 12, 2012, <https://thesource.metro.net/2012/12/03/downtown-la-voters-approve-streetcar-tax-by-landslide/>.

<sup>112</sup> Meghan McCarty Carino, “Who Desires A Streetcar in Downtown LA? Mostly Developers, But They Won’t Get It Anytime Soon,” *LAist*, July 30, 2018, <https://laist.com/2018/07/30/who-desires-a-streetcar-in-downtown-la-mostly-developers-but-guess-whod-pay.php>.

<sup>113</sup> Bianca Barragan, “Don’t build a streetcar in Downtown LA, use the buses, but gussy ‘em up a bit,” *LA Curbed*, July 27, 2018, <https://la.curbed.com/2018/7/27/17617616/downtown-los-angeles-streetcar-bad-idea>.

<sup>114</sup> Dana Gabbard, “If Last Week’s Hearing Was Any Indication, Enthusiasm Is Low for Downtown Streetcar,” *Streets Blog LA*, August 7, 2018, <https://la.streetsblog.org/2018/08/07/if-last-weeks-hearing-was-any-indication-enthusiasm-is-low-for-downtown-streetcar/>.

<sup>115</sup> *Public and Private Investments in South Lake Union*, report prepared for the city of Seattle’s Office of Economic Development, July 2012, [www.seattle.gov/Documents/Departments/economicDevelopment/SLUPublicPrivateReportFinal-2012\\_0703\\_small.pdf](http://www.seattle.gov/Documents/Departments/economicDevelopment/SLUPublicPrivateReportFinal-2012_0703_small.pdf).

maintain, and operate the LID program. LID revenues can only act as a funding source for capital expenditures (or to repay debt services on the bonds) and not to fund O&M costs.<sup>116</sup>

Property owners were provided with the option to pay the assessment fees up front or during an 18-year period, at a 4.4 percent interest rate. The annual payment was \$115 per \$1,000 of assessment in 2007, declining to \$59 per \$1,000 of assessment in 2024.<sup>117</sup> If a property was sold before the full fee had been paid, the entire balance would be payable at closing. The 18-year payment option and the associated interest rate reflected the tenure and interest rate of the general obligation bonds issued by the city to fund the project's capital costs.

During the 5-year planning and construction phase, properties within three blocks of the streetcar line saw a median property value increase of 123 percent, compared to 53 percent citywide, highlighting the success of the assessment mechanism to fund the streetcar.

### 6.1.9 Decision-Making Tool

The following decision-making tool was created as a resource for implementing agencies in assessing the appropriateness of a SAD for their project and jurisdiction.

**Table 7. Decision-Making Tool for SADs**

| Focus Area | Questions for Decision Makers   | Possible Next Steps   |
|------------|---|---|
| MARKET     | <ul style="list-style-type: none"> <li>Have SADs been used in the municipality?</li> </ul>  | <ul style="list-style-type: none"> <li>If yes, research the extent to which private landowners were supportive of SADs. Consider the extent to which circumstances may be similar or dissimilar.</li> <li>If no, undertake market research to understand how SADs were received in cities with similar dynamics. Organize discussions with property owners to obtain their views related to the SAD.</li> </ul> |
|            | <ul style="list-style-type: none"> <li>Has the implementing agency studied the real estate market risks associated with the assessment fees?</li> </ul> | <ul style="list-style-type: none"> <li>If no, consider undertaking a risk assessment to understand the potential real estate risks associated with assessment fees. Prepare to include the assessments in revenues by having analysts account for this in their forecasts and by including preemptive backstop measures/clauses.</li> </ul>   |

<sup>116</sup> O&M costs are funded through a combination of farebox revenues, advertising, King County Metro Transit funds, and interfund loans. General fund expenditures were not impacted by the construction of the streetcar. City of Seattle Adopted and 2012 Endorsed Budget, 2011, <http://www.seattle.gov/financedepartment/11adoptedbudget/documents/StreetcarfromUTILITIESANDTRANSPORTATION.pdf>.

<sup>117</sup> For more information, refer to the website of the city of Seattle: <http://clerk.seattle.gov/~public/fnote/115692.htm>.

| Focus Area          | Questions for Decision Makers   | Possible Next Steps   |
|---------------------|---|---|
| LEGAL               | <ul style="list-style-type: none"> <li>Has the local government reviewed the State enabling legislation and any relevant local legislation for establishing a SAD?</li> </ul>   | <ul style="list-style-type: none"> <li>Consider reviewing relevant State and local jurisdiction legislation for establishing SADs. In many jurisdictions, the local government must either pass a resolution stating its intention to form a SAD or must receive a petition from landowners requesting the establishment of a SAD. Subsequently, in most jurisdictions the local government is then required to read an ordinance at a public hearing announcing the formation and main parameters of the SAD.</li> </ul> |
|                     | <ul style="list-style-type: none"> <li>Has the municipality specified the type of property expected to benefit from the infrastructure and defined and justified the geographic area?</li> </ul>  | <ul style="list-style-type: none"> <li>If no, consider additional planning to ensure that the SAD sufficiently meets legal requirements.</li> </ul>   |
|                     | <ul style="list-style-type: none"> <li>Is the local government able to demonstrate a reasonable nexus between the improvement and the enhanced real estate value within the district?</li> </ul>  | <ul style="list-style-type: none"> <li>Consider whether legal advice may be required in order to build a strong legal basis for the establishment of the district.</li> </ul>   |
| ECONOMIC AND EQUITY | <ul style="list-style-type: none"> <li>Has the implementing agency considered how the value obtained by property owners as a result of the improvement will be measured?</li> </ul>   | <ul style="list-style-type: none"> <li>Consider hiring advisors at regular intervals to assess the expected value obtained by property owners as a result of the improvement, often measured in reductions in travel time and travel costs. This will help build a justification for the SAD and define its boundaries.</li> </ul>  |
|                     | <ul style="list-style-type: none"> <li>Has the implementing agency considered how the project will benefit the community—what is the economic value of the project?</li> <li>Does the proposed assessment district further the local government's economic and social objectives for the area?</li> </ul> | <ul style="list-style-type: none"> <li>If yes, consider creating public awareness about how the SAD will further the area's economic and social development.</li> <li>If no, consider the extent to which an altered district scope may better meet economic and equity objectives for the area.</li> </ul>   |

| Focus Area               | Questions for Decision Makers   | Possible Next Steps   |
|--------------------------|---|---|
| POLITICAL                | <ul style="list-style-type: none"> <li>Does the implementing agency expect there to be support among affected property owners for the SAD?</li> </ul>   | <ul style="list-style-type: none"> <li>If the proposed assessment district was the result of a petition by property owners, then there is already a basis of support for the district. Nevertheless, the implementing agency may still find opposing voices among affected owners.</li> <li>Consider developing a strategy for engaging with affected property owners to build the required support for the technique, including clearly articulating the value and benefits obtained by property owners from the improvement.</li> <li>Consider creating a non-profit organization to lead outreach efforts.</li> <li>If there is a precedent for public resistance to SADs, consider examining the reasons for public resistance and the extent to which lessons learned can be derived.</li> </ul> |
|                          | <ul style="list-style-type: none"> <li>Has the implementing agency considered ways in which assessment funds may be matched by the State government to increase funding for the improvement project?</li> </ul> | <ul style="list-style-type: none"> <li>Support from the State government shows the government's commitment to the area, which may increase confidence and support among property owners.</li> </ul>   |
| IMPLEMENTATION & FUNDING | <ul style="list-style-type: none"> <li>Has the local government considered the most appropriate method for determining the value of the assessment fees?</li> </ul>   | <ul style="list-style-type: none"> <li>Consider hiring external advisors to determine the most appropriate method for determining the amount and location of the assessment fees, whether based on property value, parcel size, street frontage, or use.</li> <li>Consider whether tiered fees may be appropriate to reflect the fact that properties closer to an improvement experience greater benefit than those that are farther away.</li> <li>Consider whether property owners will have the option to pay fees up front or over time at a rate of interest.</li> </ul>  |
|                          | <ul style="list-style-type: none"> <li>Has the local government considered how it will collect and manage the assessment fees?</li> </ul>   | <ul style="list-style-type: none"> <li>Consider whether existing collection and enforcement processes can be used to collect enforcement fees.</li> <li>Consider how fees will be segregated into a separate fund that can only be drawn upon for project costs.</li> </ul>   |

## 6.2 Business Improvement District



Agencies may consider business improvement districts when business owners wish to see improvements in infrastructure or services in their district and are willing to pay for them.

**Opportunities:** Business improvement districts are locally driven, have significant autonomy, and are relatively easy to establish.

**Challenges:** Business improvement districts are not necessarily suited to supporting larger infrastructure investments.

### 6.2.1 Overview

**Definition:** Business improvement districts (BIDs) are a type of assessment district that involves a partnership between the local government and local businesses. In a BID, businesses within a defined geographic area pay an additional tax or levy to fund or finance projects or services within the district's boundaries. Generally, a BID's revenue is used to fund infrastructure or services that may be currently underfunded,<sup>118</sup> such as ensuring security or safety, cleaning streets, recycling and waste collection, or pedestrian and streetscape areas. BIDs typically have a broader scope and mandate than SADs. The rationale behind a BID is that businesses can be assessed a differential tax rate based on a special benefit that is conferred to them by being part of the district. BIDs have numerous benefits: they are locally driven and therefore can determine their own priorities and action areas, businesses are represented and can decide what they want for the area, and BIDs can provide networking opportunities for local businesses.<sup>119</sup>

**Alternative terms:** BIDs are also known as business improvement areas, business revitalization zones, or community improvement districts.

<sup>118</sup> An inevitable question arises, namely, why does the local government not simply provide these services? First, many cities may not have the financial resources to provide the required services. Second, most voters do not live in central business districts and, as a result, elected officials may believe that significant investments into business districts will bring them little tangible benefit. Large expenditures spent on central business districts are not always favorable when most constituents live outside the city. It can also be difficult to show secondary benefits to constituents outside the BID and how it will impact them. Carleton Clifford, "Business Improvement Districts: A Powerful Tool for Managing and Financing Downtown Activities," *Graduate Student Theses, Dissertations, & Professional Papers, University of Montana*, 1988, <https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=2741&context=etd>.

<sup>119</sup> Marc Sanford, "Business Improvement Districts," *United Kingdom Parliament House of Commons Briefing Paper*, 2018, <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN04591#fullreport>.

### 6.2.2 Sectoral Uses

BIDs often dedicate their efforts to smaller projects related to street maintenance, pedestrian and bike facilities, or parking management. For example, the BID in Amherst, MA, included in its transportation mandate four projects: a five-college shuttle bus, bike storage, a valet program, and parking management.<sup>120</sup> In London, United Kingdom, at least three BIDs are active in initiatives related to urban freight transport.<sup>121</sup>

BIDs have been more active in supporting ancillary investments to transportation (such as parks, lighting, and safety) than contributing to actual transportation projects. BIDs typically contribute to services such as street lighting, parks and landscaping, garbage clean-up, beautification efforts such as graffiti removal, pedestrian and bike facilities, safety and crime prevention, as well as events in the district.

### 6.2.3 Implementation and Funding

**Structure and Timing of Funds:** Most BIDs operate on the basis of annual charges for a defined period, for example, 5 or 10 years. The fee amounts are calculated based on formulas that approved both by the BID and the local government.

**Source and Use of Funds:** Fees are collected from businesses in the district. Residential properties may also contribute but are usually exempt. Revenues can only be used for infrastructure and services within the district's boundaries. Often, BIDs can only fund services beyond those provided by the local government.

**Management of Funds:** Fees are typically collected by the local government and then returned in full to the BID periodically. Often, BIDs also collect their own revenues from event ticket sales, private grants, or parking revenues, which are directly retained by the district.

**Ease of Implementation:** BIDs require significant commitment to manage. Some have paid staff that manage day-to-day activities, while others operate only with volunteers.<sup>122</sup> Once established, BIDs have a high degree of autonomy, which allows them to rapidly implement plans. They can bring together significant skillsets that reside within the district, including political access, financial expertise, and marketing and promotional experience.<sup>123</sup> BIDs should operate long enough to give them a fair chance to succeed, typically at least for 5 years. In addition, investing in the relationship between the local government and the business improvement district also improves chances for success. Some relevant questions are listed in Sidebar 5.<sup>124</sup>

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<sup>120</sup> Amherst Business Improvement District, *Amherst Business Improvement District Improvement Plan*, September 2011, [www.amherstdowntown.com/wp-content/uploads/2015/07/Improvement-Plan-1.pdf](http://www.amherstdowntown.com/wp-content/uploads/2015/07/Improvement-Plan-1.pdf).

<sup>121</sup> Michael Browne et al., "Business Improvement Districts in Urban Freight Sustainability Initiatives: A Case Study Approach," *Transportation Research Procedia*, vol. 12, 2016, pp. 450–460.

<sup>122</sup> Clifford, "Business Improvement Districts."

<sup>123</sup> Clifford, "Business Improvement Districts."

<sup>124</sup> Clifford, "Business Improvement Districts."

### Sidebar 5. Key Questions between Business Improvement District and City<sup>125</sup>

- How will the BID benefit transportation within the city or jurisdiction?
- In which areas can the city or local government provide support to the BIDs?
- Are the local government and city in favor of the district?
- Is the city willing to help the district secure outside funding sources, such as Federal or State funds, and can the city provide any technical support?
- Does the BID want to contract with the city for supplemental services and/or assume responsibility for services traditionally provided by the city, such as snow removal?
- How can the BID ensure that local government will not cut back on existing services and hand over responsibility to the district?
- How will the business improvements help business within the BID?

#### 6.2.4 Legal Considerations

**Enabling Legislation:** BIDs must comply with statutory requirements.

**Legal Basis:** A BID is a political subdivision of a State, county, or municipal government. Within its boundaries, the BID operates as a form of local government that can organize and implement activities. Where BIDs have been successful, generally State laws outline the types of services a BID can provide, the procedures that should be followed for its formation, and the period of time it can be in place. Typically, a specific percentage of property owners must agree with and petition for the district. In addition, the district must comply with zoning regulations. A BID usually may not be established in a primarily residential area. As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

#### 6.2.5 Market Considerations

**Challenges:** BIDs may exacerbate city inequalities by incentivizing business to relocate to the district and possibly not generating additional revenue for the city as a whole—just relocating the revenue source. This may leave other city areas underdeveloped and underfunded.

**Opportunities:** Many BIDs actively promote the district, organize special events, and recruit new business to relocate to it. By investing in new infrastructure and services, businesses may be incentivized to move to the district. This may result in new market dynamics, including increases in property values in the district itself.<sup>126</sup> In addition, because many municipalities are dependent on taxes collected downtown, the city's fiscal prosperity will benefit from improved economic performance.

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<sup>125</sup> Federal, State, and local.

<sup>126</sup> Clifford, "Business Improvement Districts."

### 6.2.6 Political Considerations

**Challenges:** BIDs can be controversial. Critics argue that they are undemocratic, because they exclude residents and concentrate decision-making power in the hands of a few businesses. To reduce the risk of public opposition to a BID, a strong foundation of outreach from the outset is essential.

**Opportunities:** For a BID to be successful, property owners and merchants will need to be convinced that they will receive tangible benefits from being members. Thoughtful outreach, education activities, and careful and comprehensive planning will be required. Property owners, merchants, and citizens should be informed about the benefits of the district and how much they will need to pay. BID organizers should be prepared to demonstrate a clear correlation between the assessments paid and the benefits obtained from the district.<sup>127</sup>

Studies have also shown that homogeneity among the types of properties in the district or, at the very least, homogeneity among their service and spending preferences, results in a more successful BID.<sup>128</sup> When residents and businesses have common interests, BIDs are more likely to succeed.

### 6.2.7 Economic and Equity Considerations

**Challenges:** Because BIDs are created to serve businesses, they may not consider equity concerns such as the provision of affordable housing options.<sup>129</sup> They may also exacerbate inequalities by incentivizing business to relocate to the district, leaving other areas of the city underdeveloped and underutilized and not generating additional revenue for the city as a whole.

**Opportunities:** By making downtown districts more attractive, BIDs may generate job growth and make the city more attractive, improving property values. BIDs have shown some success in reducing crime and increasing safety in cities.<sup>130</sup>

### 6.2.8 Case Studies

Example 8 shows how BIDs in Los Angeles, CA, that prioritized safety and crime prevention had significant success.

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<sup>127</sup> Clifford, "Business Improvement Districts."

<sup>128</sup> Henry Overman, "Business Improvement Districts," *Spatial Economics Research Centre Blog*, April 18, 2012, <http://eprints.lse.ac.uk/82703/>.

<sup>129</sup> Wayne Batchis, "Business Improvement Districts and the Constitution: The Troubling Necessity of Privatized Government for Urban Revitalization," *Hastings Constitutional Law Quarterly*, vol. 38, no. 1, 2010, pp. 91-130.

<sup>130</sup> Leah Brooks, "Volunteering to Be Taxed: Business Improvement Districts and the Extra-Governmental Provision of Public Safety," *Journal of Public Economics*, vol. 92, no. 1-2, February 2008, pp. 388-406, [www.sciencedirect.com/science/article/abs/pii/S004727270700103X](http://www.sciencedirect.com/science/article/abs/pii/S004727270700103X).



### Example 8: Business Improvement Districts Help Reduce Crime in Los Angeles

Between 1994 and 2005, 30 BIDs were established in neighborhoods in Los Angeles, CA. Several academic studies reported a significant decrease in violent crimes in the neighborhoods in which BIDs were established. A 2010 study found that the implementation of a BID was associated with a 12 percent reduction in the incidence of robbery and an 8 percent reduction in the incidence of violent crimes.<sup>131</sup> The authors indicated, however, that their establishment was “not a panacea,” and highlighted the importance of “targeting business improvement district efforts to crime prevention interventions.”<sup>132</sup> A 2008 study similarly found that BIDs in Los Angeles had reduced crime by 6 to 10 percent, attributing it to their ability to overcome a collective action problem. It also noted that BIDs had spent \$21,000 on average to avert one violent crime, substantially lower than the \$57,000 social cost of a violent crime, which suggests that investments in crime prevention through a BID are generally cost-effective.<sup>133</sup>

#### 6.2.9 Decision-Making Tool

Implementing agencies can use the decision-making tool in Table 8 to consider the appropriateness of a BID for their jurisdiction.

**Table 8. Decision-Making Tool for Business Improvement Districts**

| Focus Area | Questions for Decision Makers  | Possible Next Steps  |
|------------|--|--|
| MARKET     | <ul style="list-style-type: none"> <li>Have business improvement districts (BIDs) been used in the same city or jurisdiction?</li> </ul> | <ul style="list-style-type: none"> <li>If yes, research the extent to which businesses and developers were supportive of the BIDs. Consider the extent to which circumstances may be similar or dissimilar.</li> <li>If no, undertake market research to understand how BIDs were received in cities with similar dynamics. Organize discussions with businesses to obtain their views.</li> </ul> |

<sup>131</sup> John MacDonald et al., “The Effect of Business Improvement Districts on the Incidence of Violent Crimes,” *Injury Prevention*, vol. 16, June 29, 2010, pp. 327–332, <https://injuryprevention.bmj.com/content/16/5/327.info>.

<sup>132</sup> MacDonald, “The Effect of Business Improvement Districts on the Incidence of Violent Crimes.”

<sup>133</sup> Brooks, “Volunteering to Be Taxed.”

| Focus Area          | Questions for Decision Makers  | Possible Next Steps   |
|---------------------|--|---|
| LEGAL               | <ul style="list-style-type: none"> <li>Has the municipality reviewed relevant regulation to understand which types of services a BID can provide, the procedures that must be followed and the period of time that can be in place?</li> </ul> | <ul style="list-style-type: none"> <li>The local government may consider advising the organizers of the BID on the legal requirements related to the district to facilitate its establishment.</li> </ul>   |
|                     | <ul style="list-style-type: none"> <li>Does the relevant local or State regulation allow the BID to pursue the types of projects and services that it is proposing?</li> </ul>   | <ul style="list-style-type: none"> <li>If no, then the scope of the BID may need to be defined. Seeking examples of BIDs in jurisdictions with similar regulations may help redefine the scope and mandate of the district.</li> </ul>  |
| ECONOMIC AND EQUITY | <ul style="list-style-type: none"> <li>Does the vision of the BID and its proposed activities and services align with the local government or city's economic and social goals?</li> </ul>   | <ul style="list-style-type: none"> <li>Consider creating public awareness about the BID, including for residents outside the district.</li> <li>Consider how the relationship between the BID and the local government will be maintained and which channels of communication will be used to ensure goals are aligned.</li> <li>If no, consider how the local government or city might work together with the BID to ensure a common vision for the area.</li> </ul> |
| POLITICAL           | <ul style="list-style-type: none"> <li>Has political resistance to BIDs or other SADs been an issue in the city or jurisdiction?</li> </ul>  | <ul style="list-style-type: none"> <li>If yes, consider undertaking research and conducting first-hand interviews with relevant stakeholders to understand the cause of public resistance in those other districts and the extent to which those causes can be mitigated.</li> <li>Even if previous districts did not face public resistance, public outreach is still essential to ensure the success of a BID.</li> </ul>   |
|                     | <ul style="list-style-type: none"> <li>Is the public educated and aware of the purpose and benefits of a BID?</li> </ul>   | <ul style="list-style-type: none"> <li>Consider how outreach activities can be organized to build support for the BID, including organizing events, publishing plans for it, or highlighting BID successes in other cities.</li> </ul>  |

| Focus Area               | Questions for Decision Makers   | Possible Next Steps  |
|--------------------------|---|--|
| IMPLEMENTATION & FUNDING | <p><b>For the local government or city:</b></p> <ul style="list-style-type: none"> <li>• Has the city reviewed (and if so, suggested changes to) the proposed geographic scope for the BID?</li> <li>• Has the local government reviewed (and, if relevant, suggested changes to) the proposed vision, mandate, and activities for the BID?</li> <li>• Has the local government confirmed its role in collecting and managing funds? Will it collect funds and periodically transfer them to the BID? If so, how often?</li> <li>• Has the local government or city considered whether Federal or State funds can help complement revenues from the BID? Can it assist the BID in obtaining those funds?</li> </ul> | <ul style="list-style-type: none"> <li>• Local governments or cities are encouraged to take a proactive role in collaborating with the BID organizers. This increases the likelihood that it will receive community support and that its activities will align with public economic and social goals.</li> </ul>   |
|                          | <p><b>For the organizers of the business improvement district:</b></p> <ul style="list-style-type: none"> <li>• What is the vision for the BID? What services, improvements, and activities will it provide?</li> <li>• How much will the proposed services and improvements cost?</li> <li>• How will fees be structured? How much will individual businesses pay? Who will be exempt?</li> <li>• Can the geographic boundaries of the BID be justified in terms of tangible benefits to property owners and tenants/merchants?</li> <li>• How long will the BID operate?</li> <li>• Does the BID need to hire staff to manage day-to-day activities? How will it manage volunteers?</li> </ul>                    | <ul style="list-style-type: none"> <li>• BID organizers are encouraged to seek best practices from successful districts across the country to develop an appropriate vision and mission, scope of services, fee structure, geographic boundary, and organizational structure.</li> <li>• Organizing and administering a successful BID requires public approval and oversight. Organizers are encouraged to work together with government officials to ensure that both public and private objectives are met. Organizers are encouraged to meet with officials early on in the process and provide examples of how BIDs have improved neighborhoods in similar areas to secure public support.</li> <li>• BIDs are more likely to be successful if business leaders have worked together successfully in the past. Organizers may wish to find avenues for successful collaboration among business leaders to lay the groundwork for the establishment of a BID in the future.</li> </ul> |

## 6.3 Land Value Tax



Agencies may consider a land value “split rate” tax to enhance economic efficiency in the tax system and when property tax increases are controversial.

**Opportunities:** Taxing land at a higher rate than property is considered more economically efficient and equitable than taxing land at a lower rate than property.

**Challenges:** Land value taxes are often misunderstood and require significant outreach and education to implement. Because of their limited use to date, implementation costs may be high.

### 6.3.1 Overview

**Definition:** A land value tax can come in two forms: 1) a tax that is only imposed on the value of land, a pure land value tax, considered mainly for theoretical purposes;<sup>134</sup> or 2) a split tax rate, where a higher tax rate is imposed on land than on buildings.<sup>135 136 137</sup> This Manual considers a split-tax system.

**Alternative terms:** N/A.

### 6.3.2 Sectoral Uses

**Highways and Roads:** The nature of the land value tax makes it difficult to use it to fund a single project; rather, it is more appropriate as a transportation program funding source. A significant portion of transportation funding currently comes from the property tax.<sup>138</sup> A split tax system in which land would be taxed at a higher rate than property could theoretically raise significant funds for a transportation program.<sup>139</sup>

<sup>134</sup> A pure land value tax is typically considered an inadequate substitution for the revenues derived from property taxes. A 2010 report found that for a pure land value tax to fully replace revenues derived from improvements, Milwaukee, WI, would need to tax away all the economic rents from land. Similarly, Philadelphia, PA, would need to collect more than 80% of land rents. Richard Dye and Richard England, “Assessing the Theory and Practice of Land Value Taxation,” *Lincoln Institute of Land Policy*, 2010, [https://www.lincolnst.edu/sites/default/files/pubfiles/assessing-theory-practice-land-value-taxation-full\\_0.pdf](https://www.lincolnst.edu/sites/default/files/pubfiles/assessing-theory-practice-land-value-taxation-full_0.pdf).

<sup>135</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>136</sup> Dye and England, “Assessing the Theory and Practice of Land Value Taxation.”

<sup>137</sup> Vadali et al., *Guidebook to Funding Transportation through Land Value Return and Recycling*.

<sup>138</sup> Property taxes and assessments represented 4.8% (\$10.3 billion) of the overall funding for highways in the U.S. in 2012. “Transportation Funding,” BATIC Institute: An AASHTO Center for Excellence, [www.financingtransportation.org/funding\\_financing/funding/](http://www.financingtransportation.org/funding_financing/funding/).

<sup>139</sup> Dye and England, “Assessing the Theory and Practice of Land Value Taxation.”

### 6.3.3 Implementation and Funding

**Structure and Timing of Funds:** Although practical examples are limited, land value taxes would likely be collected in a similar manner as property taxes.

**Source and Use of Funds:** Split-rate tax systems impose taxes on landowners as well as on property owners, with the rate on land being higher than that on property. Section 6.3.7 explains why it makes economic sense to tax land at a higher rate.

**Management of Funds:** Although practical examples are limited, land value taxes would be managed in a similar manner to property taxes since they are based on land only, which is a part of property value.

**Ease of Implementation:** A split-rate tax system should be seen more as an overall reform of the tax program to fund broader programs than as a funding source for a specific project. Such a tax reform requires significant political will and resources to implement, especially since there is limited practical experience with this technique in the United States. Accurately assessing land value may also be a significant challenge for governments.<sup>140</sup>

### 6.3.4 Legal Considerations

The return on land value is embedded within a property tax. Some State constitutions require that all taxpayers be taxed in an identical manner. In these States, taxing land and buildings at different rates is prohibited. A land value tax, therefore, is first enacted by State and local officials and any applicable statutory or regulatory requirements or prohibitions must be considered.<sup>141</sup> <sup>142</sup> As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

### 6.3.5 Market Considerations

**Opportunities:** A split-rate property tax would influence developer behavior, likely leading to denser development, as developers build more to recover expenses.<sup>143</sup>

### 6.3.6 Political Considerations

**Challenges:** Because land value taxes are not well understood among the public, local governments may need to invest significant efforts in outreach activities. In addition, a revenue-neutral change in tax will

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<sup>140</sup> Jason R. Junge and David Levinson, "Financing Transportation with Land Value Taxes: Effects on Development Intensity," *The Journal of Transport and Land Use*, vol. 5, no. 1, 2012, pp. 49–63.

<sup>141</sup> Vadali et al., *Guidebook to Funding Transportation through Land Value Return and Recycling*.

<sup>142</sup> Dye and England, "Assessing the Theory and Practice of Land Value Taxation."

<sup>143</sup> Junge and Levinson, "Financing Transportation with Land Value Taxes."

have winners and losers, meaning that some taxpayers will have an interest in preserving the status quo. Any local government considering this technique will therefore need to invest in education and outreach activities.<sup>144</sup>

**Opportunities:** Land value taxes may be less controversial than property taxes.

### 6.3.7 Economic and Equity Considerations

**Opportunities:** Land value taxes may have positive impacts on equity and economic efficiency. By placing the tax burden on a fixed, public asset—land—instead of private assets such as buildings, a land value tax does not create the same distortions as traditional taxes and provides incentives to create dense and compact developments. A 2012 study found that split-rate taxes would lead to higher density developments in all the cities studied.<sup>145</sup> Dye and England note that “when a tax does not affect the amount of the commodity produced or consumed, there is no additional cost.” Such a tax is therefore more efficient than other taxes that reduce production.<sup>146</sup> A land value tax is often considered a progressive form of tax, which incentivizes a better use of vacant land.<sup>147</sup>



#### Explore in Detail

[Assessing the Theory and Practice of Land Value Taxation](#)

*Dye, Richard and Richard England, Lincoln Institute of Land Policy, 2010*

### 6.3.8 Case Studies

#### Example 9: Pennsylvania Split Rate Tax

Several major cities and small towns in Pennsylvania have adopted a split-rate tax. Pittsburgh, PA, enacted a split-rate tax in 1976, raising its land taxes from twice the rate levied on buildings to nearly six times greater. Other regional cities experienced a decline in new developments in the 1980s, but

<sup>144</sup> Dye and England, “Assessing the Theory and Practice of Land Value Taxation.”

<sup>145</sup> Junge and Levinson, “Financing Transportation with Land Value Taxes.”

<sup>146</sup> Dye and England, “Assessing the Theory and Practice of Land Value Taxation.”

<sup>147</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

Pittsburgh witnessed a significant rise in commercial construction. Research has suggested that the higher land tax was one of the contributing factors to this development.<sup>148</sup>

## 6.4 Sales Tax Districts



Agencies may consider sales tax districts when substantial funding is required for a specific investment that voters recognize as critical.

**Opportunities:** Once approved, sales tax districts generally face limited public resistance, have low implementation costs, and can raise substantial funds both for capital and O&M expenses.

**Challenges:** Sales tax districts are a regressive tax and may not be seen as equitable.

### 6.4.1 Overview

**Definition:** In a sales tax district, an additional sales tax is levied on all transactions or purchases in a designated area that benefits from an infrastructure improvement.

**Alternative terms:** In Illinois, sales tax districts are called special service areas. In Missouri and Kansas, they are called transportation development districts. In California, they are called local transportation sales taxes.

### 6.4.2 Sectoral Uses

**Highways and Roads:** Sales tax districts are a common funding source for highways and roads. Examples include the I-15 Express Lanes Project in Riverside County, CA, where a Measure A half-cent local option sales tax raised \$1 billion in transportation improvement funding between 1989 and 2009;<sup>149</sup> the I-405 Improvement Project in Orange County, CA, where Measure M2 sales tax revenues raised \$253.94 million for the project;<sup>150</sup> and the Loop 202 South Mountain Freeway in Phoenix, AZ, where a

<sup>148</sup> David M. Levinson and Emilia Istrate, *Access for Value: Financing Transportation through Land Value Capture*, Brookings Institute, April 2011, [www.brookings.edu/wp-content/uploads/2016/06/0428\\_transportation\\_funding\\_levinson\\_istrate.pdf](https://www.brookings.edu/wp-content/uploads/2016/06/0428_transportation_funding_levinson_istrate.pdf).

<sup>149</sup> For more information, see: [https://www.fhwa.dot.gov/ipd/project\\_profiles/ca\\_i15\\_express\\_lanes\\_project.aspx](https://www.fhwa.dot.gov/ipd/project_profiles/ca_i15_express_lanes_project.aspx).

<sup>150</sup> For more information, see: [https://www.fhwa.dot.gov/ipd/project\\_profiles/ca\\_i405\\_improvement\\_project.aspx](https://www.fhwa.dot.gov/ipd/project_profiles/ca_i405_improvement_project.aspx).

half-cent sales tax raised \$702.4 million to fund the project.<sup>151</sup> Another relevant example is Los Angeles County's local half-cent sales tax (Measure R), which finances new transportation projects and programs and accelerates those already in the pipeline.<sup>152</sup>

Many States have enacted specific types of sales tax districts for highways and roads. In California, local transportation sales taxes have been used in at least 18 counties, generating over \$2 billion annually in revenue for capital, maintenance, and operational costs.<sup>153</sup> Example 10 illustrates how a transportation development district was used to finance improvements on U.S. 36 in northeast Missouri.<sup>154</sup>

While not conventionally considered a value capture technique, vehicle registration fees collected from a specific district serve a similar purpose as a sales tax district. In the case of the E-470 toll road in Colorado, a vehicle registration fee was collected within E-470's voting boundary and served as a material funding source for that major Denver-area road, especially during the start-up years, as discussed in Appendix Section VI.

**Transit:** Sales tax districts are one of the most common forms of revenues for transit agencies and also comprise a significant portion of revenues for capital spending nationwide.<sup>155</sup> A study of the 25 largest transit systems found that 15 systems received dedicated sales tax funds, totaling \$4.5 billion in 2003 or 43 percent of dedicated funds.<sup>156</sup>

**Other Sectors:** Sales tax districts can also be established for other sectors, such as waste collection and management.

### 6.4.3 Legal Considerations

**Enabling legislation:** Incremental sales tax rates are established by statute. Sales tax district statutes also define eligible costs sales tax funds may be used to support.<sup>157</sup> <sup>158</sup> As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

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<sup>151</sup> For more information, see: [https://www.fhwa.dot.gov/ipd/project\\_profiles/az\\_loop\\_202.aspx](https://www.fhwa.dot.gov/ipd/project_profiles/az_loop_202.aspx).

<sup>152</sup> For more information, see: <https://www.metro.net/projects/measurer/>.

<sup>153</sup> Amber Crabbe et al., "Local Transportation Sales Taxes: California's Experiment in Transportation Finance." *California Policy Research Center*, vol. 14, no. 6, September 2002, <https://escholarship.org/uc/item/0hj2r88h>.

<sup>154</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>155</sup> A study of approximately 600 transit agencies reporting to the Federal Transit Administration showed that, after State funds, sales taxes comprised the largest source of revenues for capital spending (38%) and the second-largest source of operating expenses (27%) after fares (32%). Arizona PIRG Education Fund, "Why and How to Fund Public Transportation," March 2009, <https://uspirgedfund.org/sites/pirg/files/reports/Why-and-How-to-Fund-Public-Transportation.pdf>.

<sup>156</sup> Arizona PIRG Education Fund, "Why and How to Fund Public Transportation."

<sup>157</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>158</sup> "Sales Tax Districts," Federal Highway Administration, Center for Innovative Finance Support, [www.fhwa.dot.gov/ipd/value\\_capture/defined/sales\\_tax\\_districts.aspx](http://www.fhwa.dot.gov/ipd/value_capture/defined/sales_tax_districts.aspx).



#### 6.4.4 Implementation and Funding

**Structure and Timing of Funds:** Sales tax district revenues can be used to back bonds or loans to finance a project's capital costs. The sales tax revenues received throughout the life of the project are used to repay debt service.

**Source and Use of Funds:** Within a sales tax district, levies apply to nearly all consumer purchases, subject to a few exceptions.<sup>159</sup> As such, sales tax districts can raise substantial funds. Typically, funds will be used to finance the capital costs of a project. Sales tax districts can be used alone or in conjunction with other value capture techniques, such as tax increment financing, when further funding sources are required.<sup>160</sup>

**Management of Funds:** When sales taxes back bonds, these funds are segregated into separate funds to guarantee that debt service will be prioritized and repaid.

**Ease of Implementation:** Sales tax revenues are relatively easy to implement and administer, in particular when existing collection approaches can be used.

#### 6.4.5 Market Considerations

**Challenges:** Sales tax revenues are dependent on economic growth and may decline during economic downturns. This is a risk when sales tax revenues are used to repay bonds. Where sales tax revenues are used to fund operations, downturns may result in significant cuts in service, further exacerbating economic challenges. Another disadvantage of local sales tax districts is that residents may travel to bordering jurisdictions to make purchases in order to avoid the tax, creating negative commercial impacts.

**Opportunities:** If sales taxes are sufficiently small, they may not be noticeable enough to change customer behavior and may therefore have a marginal impact on commercial activity.

#### 6.4.6 Political Considerations

**Challenges:** Frequently, the wider the scope of the proposed sales tax increase, the greater the likelihood of public resistance. Statewide increases in sales taxes to fund transportation programs often face opposition by communities that argue that funds are unlikely to “trickle down” to their area. Residents tend to be more supportive of sales tax increases in their own area, where the benefits are local and tangible.

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<sup>159</sup> Jaimee Lederman et al., “Lessons Learned from 40 Years of Local Option Transportation Sales Taxes in California,” *Transportation Research Record: Journal of the Transportation Research Board*, June 2018, <https://journals.sagepub.com/doi/10.1177/0361198118782757>.

<sup>160</sup> Robert D. Klahr and Lauren A. Smith, *Summary of the Missouri Transportation Development District Act*, Armstrong Teasdale LLP, June 2010.

**Opportunities:** Because sales tax districts require local voter approval, have finite terms, are used for tangible projects and require local control over revenues, they typically face less public resistance than gas taxes, because they are perceived to give citizens greater control over transportation investments.<sup>161</sup>

#### 6.4.7 Economic and Equity Considerations

**Challenges:** Because taxes are applied to most consumer purchases, they may be seen as inequitable because light transportation users may pay more per mile than heavy users. Proponents argue, however, that even these users benefit from good roads, as do non-drivers, in the form of reduced goods and services costs.<sup>162</sup> Sales taxes are typically seen as regressive,<sup>163</sup> yet they can be made less so by exempting purchases for which low-income citizens spend a greater portion of their income, such as groceries, or extending sales taxes to goods or services used by high-income consumers.<sup>164</sup>

**Opportunities:** Proponents argue that transportation investments funded through sales tax revenues promote economic development, which will eventually pay for public improvements and potentially more.

#### 6.4.8 Case Studies

Example 10 illustrates the use of sales tax districts in Missouri. It highlights a few of the legal and regulatory provisions around the establishment of a transportation development district (a type of sales tax district) and shows how sales tax revenues financed a \$34.5 million loan to make improvements to U.S. 36 in northeast Missouri.

#### Example 10: Missouri Transportation Development Districts Fund Transportation

The Missouri Transportation Development District (TDD) Act was enacted in 1990. Under the Act, a TDD can be created to fund, promote, plan, design, construct, improve, maintain, and operate one or more projects or to assist in such activity. A TDD is limited in scope to transportation-related projects, which can range from streets and highways, parking lots, bus stops, stations, ports, airports, railroads, light rail, or other mass transit. It is established through a petition to the circuit court, which can be made by property owners, registered voters, or transportation authorities. A TDD can impose a sales tax in increments of 0.125 percent to 1 percent. The sales tax is applied to all retail sales in the district that are subject to taxation, excluding specific categories such as motor vehicles, trailers, boats, outboard motors, and utilities. It can also impose a property tax of up to 10 cents annually per hundred

<sup>161</sup> Crabbe et al., "Local Transportation Sales Taxes."

<sup>162</sup> Lederman et al., "Lessons Learned from 40 Years of Local Option Transportation Sales Taxes in California."

<sup>163</sup> A regressive tax is applied uniformly and impacts low-income earners more than high-income earners. A progressive tax has a greater impact on high-income earners.

<sup>164</sup> Arizona PIRG Education Fund, "Why and How to Fund Public Transportation."

dollars (\$100) assessed.<sup>165</sup> Since 2010, revenues from a TDD have been collected by the Missouri Department of Revenue.<sup>166</sup>

**Sales tax district revenues finance Missouri U.S. 36 loan:** The U.S. Highway 36–Interstate 72 Corridor TDD in northeast Missouri was formed to construct 52 miles of two additional lanes on U.S. 36 from Hannibal to Macon, creating a four-lane expressway deemed necessary due to safety concerns. However, lack of funding had prevented the project’s construction. In April 2005, voters in the counties of Macon, Marion, Monroe, and Shelby approved a half-cent sales tax to help fund the project. In 2008, the district entered into a loan agreement with the Missouri Transportation Finance Corporation for \$34.5 million, backed by 15 years of anticipated sales tax revenues that were used to make principal payments on the loan. State funding was used to fill the remaining gap in project funding.

Sales tax collections began in January 2006. The project was completed in 2010 and full repayment of the loan occurred in July 2017, more than 3 years earlier than anticipated due to higher-than-expected revenues.

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<sup>165</sup> Klahr and Smith, *Summary of the Missouri Transportation Development District Act*.

<sup>166</sup> “Transportation Development Districts (TDDs).” *Missouri Department of Revenue*, <https://dor.mo.gov/business/sales/tdd/>.



## 7 TAX INCREMENT FINANCING

This chapter provides an overview of tax increment financing, an important source of potential value capture revenue for many highway projects.



Agencies may consider tax increment financing to fund transportation projects if the development would not occur without tax increment financing and the market value of the development would be higher than what would occur on the site if tax increment financing were not used.

**Opportunities:** Tax increment financing can raise substantial revenues for capital projects through revenue-backed bonds.

**Challenges:** Tax increment financing requires significant institutional capacity to manage and can face public resistance.

### 7.1 Overview

**Definition:** A tax increment financing (TIF) district is a geographic area administered by a special authority in which incremental property tax value increases from an infrastructure investment are captured to fund or finance the infrastructure investment.

**Alternative terms:** TIF districts are known by different names. For Texas highways they are called transportation reinvestment zones (TRZs), and in Georgia they are called tax allocation districts (TADs).<sup>167</sup>

## 7.2 Sectoral Uses

**Highways and Roads:** TIF has not frequently been used to fund highways and roads.<sup>168</sup> Texas and Utah have created a form of TIF dedicated to funding transportation projects, called transportation reinvestment zones (TRZ).<sup>169</sup> A summary of the El Paso, TX, TRZ is provided in Section 7.8 and a detailed analysis of the Hays County/San Marcos TRZ in Texas is provided in Appendix Section VII.

**Transit:** TIF has frequently been used for transit, typically in combination with transit-oriented development. In at least four States—Georgia, Illinois, Oregon, and Pennsylvania—TIF has funded transit or transit-related projects.<sup>170</sup> Section 7.8 illustrates two transit projects funded through TIF, including Atlanta, GA’s BeltLine TAD (see Appendix Section I).

**Other sectors:** Across the United States, TIF is widely used to finance economic development projects, including improvements to sewer systems, storm drainage, parks and streets, streetscape and landscaping, libraries, emergency services facilities, schools, and public transportation.

## 7.3 Implementation and Funding

**Structure and Timing of Funds:** A new development paid for with TIF revenues can be funded in two ways. Under a pay-as-you-go approach, the development is funded only when the TIF revenue is generated. This approach may result in slower implementation. Under a pay-as-you-use approach, the implementing agency issues bonds to fund capital costs. The latter enables agencies to immediately launch new investments. However, it requires incremental tax revenues to be relatively stable to repay the bonds.<sup>171</sup> New infrastructure may either fall within an existing TIF district—in which case TIF revenues collected from that district can be used to fund redevelopment—or a local government may create a district with the sole purpose of funding a project.

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<sup>167</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>168</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>169</sup> “Transportation Reinvestment Zone,” Texas Department of Transportation (TxDOT), <https://www.txdot.gov/government/programs/trz.html>.

<sup>170</sup> Shishir Mathur and Adam Smith, *A Decision-Support Framework for Using Value Capture to Fund Public Transit: Lessons from Project-Specific Analyses*, Norman Y. Mineta International Institute for Surface Transportation Policy Studies, 2012.

<sup>171</sup> Mathur and Smith, “A Decision-Support Framework.”

**Sources and Uses of Funds:** In most jurisdictions, TIF is only used to finance capital costs. O&M costs can then be funded through other revenue sources, such as farebox or tolls or sales tax revenues.

**Management of Funds:** Incremental tax monies are typically placed into a special account to fund the project or respective debt issued.<sup>172</sup>

**Ease of Implementation:** Implementing a TIF district requires significant institutional capacity. This is particularly the case when an agency issues TIF-backed bonds to finance a project's capital costs. In the case of Chicago's Wilson Yard, the city of Chicago programmed over \$140 million in 2017<sup>173</sup> in administration costs, an amount that would likely be higher for municipalities with less experience. Institutional capacity is also required to raise public support.<sup>174</sup>

## 7.4 Legal Considerations

**Enabling Legislation:** TIF is authorized in all States except Arizona.<sup>175</sup> In some states, TIF for transportation projects is specifically authorized.<sup>176</sup>

**Legal Basis:** In most States, two conditions must be met before a TIF district can be created: 1) the area must be "blighted" (i.e., distressed based on economic and other indicators) and 2) the public sponsor must demonstrate that the area would not develop "but for" the establishment of the district.<sup>177</sup> A 2015 report found that more than half of States with TIF legislation list "blight" or distressed as a requirement for district creation, although each State defines the term differently.<sup>178</sup> Most States also require that project plans and redevelopment plans be drafted, public hearings be held, and plans be approved by elected officials.<sup>179</sup> As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

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<sup>172</sup> Mathur and Smith, "A Decision-Support Framework."

<sup>173</sup> City of Chicago, *Tax Increment Financing (TIF) District Programming 2017-2021*, October 2017, [www.cityofchicago.org/content/dam/city/depts/dcd/tif/TIF\\_District\\_Programming\\_2017-2021\\_October2017.pdf](http://www.cityofchicago.org/content/dam/city/depts/dcd/tif/TIF_District_Programming_2017-2021_October2017.pdf).

<sup>174</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>175</sup> Craig L. Johnson and Joyce Y. Man, *Tax Increment Financing and Economic Development: Uses, Structures, and Impacts*, Albany, NY: State University of New York Press, 2001.

<sup>176</sup> "Tax Increment Financing," Federal Highway Administration, [https://www.fhwa.dot.gov/ipd/fact\\_sheets/value\\_cap\\_tax\\_increment\\_financing.aspx](https://www.fhwa.dot.gov/ipd/fact_sheets/value_cap_tax_increment_financing.aspx).

<sup>177</sup> Daniel N. Farwell, "A Modest Proposal: Eliminating Blight, Abolishing But-For, and Putting New Purpose in Wisconsin's Tax Increment Financing Law," *Marquette Law Review*, 8th ser., 89, no. 2 (2005), <https://scholarship.law.marquette.edu/cgi/viewcontent.cgi?article=1103&context=mulr>.

<sup>178</sup> Council of Development Finance Agencies, "Tax Increment Finance State-by-State Report: An Analysis of Trends in State Tax Increment Financing Statutes," 2015.

<sup>179</sup> Mathur and Smith, "A Decision-Support Framework."

## 7.5 Market Considerations

**Challenges:** TIF revenues depend on property value increases, which are impacted by both redevelopments and real estate market conditions.<sup>180</sup> Example 11 illustrates Illinois' experience with a drop in TIF revenues during the real estate market downturn in 2007. If property values decrease, the relevant authority may struggle to repay the TIF-backed bonds. Redevelopments should also happen on schedule, as delays impact expected property tax revenues.<sup>181</sup>

**Opportunities:** Some studies have found that TIF resulted in a real appreciation of property values through increased investment in the district.<sup>182</sup>

### Example 11: Downturn Causes Significant Illinois TIF Revenue Decline

The State of Illinois is one of the country's most active users of TIF, with 1,405 active TIF districts in 2016. TIF revenues rose significantly in the early- to mid-2000s, during what is referred to as a real estate bubble. Between 2000 and 2007, statewide TIF revenues rose from \$5.09 to \$19.44 billion. The collapse of the subprime mortgage market in 2007 resulted in a real estate market downturn that heavily impacted these revenues. TIF revenues statewide decreased from \$19.74 to \$11.71 billion between 2009 and 2013, a 41 percent decline.<sup>183</sup> The case of Illinois highlights how TIF revenues remain dependent on real estate market conditions, which should be carefully analyzed from a risk perspective. This example highlights the need to carefully manage real estate risk, which is discussed in detail in Chapter 11.

## 7.6 Political Considerations

**Challenges:** Because incremental revenues are typically separated from the normal budgeting process, these revenues may not always be subject to the same public scrutiny as the general fund. Building public support for the technique requires transparency and accountability, including carefully tracking and monitoring TIF usage and its performance, ensuring that information on expenditures and revenues is published and clearly explained.<sup>184</sup> Also, they need to be carefully reviewed to ensure they do not encourage the relocation of development and the movement of property taxes from one location to another. They should be used to stimulate new development, not relocation. Otherwise, there is no net gain from their use.

<sup>180</sup> Mathur and Smith, "A Decision-Support Framework."

<sup>181</sup> Mathur and Smith, "A Decision-Support Framework."

<sup>182</sup> Brent C. Smith, "The Impact of Tax Increment Finance Districts on Localized Real Estate: Evidence from Chicago's Multifamily Markets," *Journal of Housing Economics*, vol. 15, no. 1, March 2006, pp. 21–37.

<sup>183</sup> Illinois General Assembly, "Final Report of the Tax Increment Financing Reform Task Force," June 1, 2018, [www.revenue.State.il.us/AboutIdor/TaxResearch/TIFTaskForce/TIF\\_Reform\\_Task\\_Force\\_Report.pdf](http://www.revenue.State.il.us/AboutIdor/TaxResearch/TIFTaskForce/TIF_Reform_Task_Force_Report.pdf).

<sup>184</sup> David Merriman, *Improving Tax Increment Financing (TIF) for Economic Development*, Lincoln Institute of Land Policy, September 2018, [www.lincolnst.edu/gateway/download/25116/1544547549](http://www.lincolnst.edu/gateway/download/25116/1544547549).

**Opportunities:** Because they do not involve additional taxes, TIF may be less controversial than special assessments.

## 7.7 Economic and Equity Considerations

**Challenges:** TIF may result in certain inequities. When investments are funded by TIF, the accompanying increases in property values may price out current increment financing district residents. Since projects are typically targeted toward economically disadvantaged neighborhoods, lower income residents may no longer be able to afford housing in the district. The second type of inequity relates to property tax increases that would have occurred without TIF and could have resulted in greater tax revenues for other agencies, such as the school district or other city functions. Because those incremental revenues are redirected toward the TIF purpose, public services such as schools and county services could be negatively impacted.<sup>185</sup> Chicago citizens have criticized TIF for shifting revenues away from the public school system (see Example 14). As described in Appendix Section I, the city of Atlanta overcame this challenge by negotiating an agreement with the county and public school system in which both would receive annual fixed payments resulting from the TIF revenues.

Several recent studies have shed doubt on the direct linkage between TIF and growth. A 2013 study concluded that TIF in Chicago showed no evidence of increasing economic development benefits for local residents.<sup>186</sup> A 2018 study examined the causal relationship between a TIF district and growth. It found that when a municipality used TIF, the overall tax base of the municipality did not grow faster than in other municipalities that did not use it. This indicates that, in many cases, TIF serves to shift revenue rather than create additional revenue.

**Opportunities:** TIF proponents argue that above-average growth in TIF districts shows that the technique creates economic growth.

## 7.8 Case Studies

TIF is a flexible tool that can be used in both dense cities and low-population rural areas for industrial, commercial, and residential developments. Example 12 highlights the use of TIF to finance a rural road connecting an agricultural facility served by a rail line to South Dakota Highway 50. Example 13 shows the issues with implementing TRZs in Texas. Example 14 highlights several reasons why public support for TIF wavered in Chicago. In the case of the Atlanta BeltLine, as discussed in Appendix Section I, an agreement was signed with local schools to enable them to benefit from property tax increases, addressing one of the sources of public opposition to TIF.

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<sup>185</sup> Mathur and Smith, "A Decision-Support Framework."

<sup>186</sup> T. William Lester, "Does Chicago's Tax Increment Financing (TIF) Program Pass the 'But-For' Test? Job Creation and Economic Development Impacts Using Time-Series Data," *Urban Studies*, vol. 51, no. 4, March 1, 2014, pp. 655–674, [doi.org/10.1177/0042098013492228](https://doi.org/10.1177/0042098013492228).



**Example 12: Yankton County Napa Junction Tax Increment District<sup>187 188</sup>**

In 2015, the South Dakota Transportation Commission made a \$6 million loan to Yankton County to construct a concrete, industrial-grade service road connecting South Dakota Highway 50 to Napa Junction, a freight rail line. The South Dakota loan will be repaid through a TIF district located at an industrial park adjacent to Napa Junction. The industrial park consists of a recently constructed \$40 million agricultural center and a \$25 million dry distillers' grain processor. Additional businesses are also expected to locate in the district.

Yankton County is required to repay the loan over 10 years at a 1-percent interest rate. The loan was structured so that early payments are small with a large balloon payment at the end of the 10-year period. The repayment proceeds will be reinvested in South Dakota highways. If the TIF proceeds from the agricultural center do not cover the required repayment, Yankton County is required to pay the State DOT any difference between the TIF proceeds and the amount owed to the State. To mitigate Yankton County's risk and ensure the road's construction, the agricultural center agreed to secure this gap.

The 2017 TIF proceeds at the agricultural center were \$125,369, which was short of the required loan repayment. The agricultural center paid an additional \$208,981 to Yankton County to cover the county's interest payments to the DOT. As additional businesses relocate to the Napa Junction area to take advantage of proximity to transportation and to the agricultural center, the agricultural center's funding burden beyond property taxes is expected to decline.

The road was ineligible for Federal funding and therefore could not take advantage of South Dakota's State Infrastructure Bank. The TIF arrangement was a creative solution that allowed the county to construct the road, stimulating economic development and creating jobs.

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<sup>187</sup> Bob Mercer, "State panel makes highway loan to help Yankton County rail park," *Mitchell Republic*, October 2, 2015.

<sup>188</sup> Nancy Wenande, "Napa Junction Community Investment," *Yankton Area Progressive Growth*, October 3, 2019.

**Example 13: El Paso Transportation Reinvestment Zones** <sup>189 190 191 192 193</sup>

In 2007, the Texas Legislature established transportation reinvestment zones (TRZs), a type of TIF district, to facilitate Texas DOT funding with this local revenue source. They were established in order to simplify the process of financing transportation projects through value capture. TIF districts were already permissible in Texas but were very complex to manage.

The city of El Paso became the first jurisdiction in Texas to implement a TRZ, approving the first one in late 2008. However, due to issues with the city's revenue data and corridor contiguity compliance, it was repealed in December 2010. This repeal did not affect project funding, as it was immediately replaced with a second and third TRZ, which established new boundaries and included a recalculation of revenue estimates. El Paso's 2008 Comprehensive Mobility Plan sought to expedite development and improve regional connectivity, and therefore included 15 proposed projects with a total cost of \$1 billion across the roadway, highway, bus rapid transit, and toll road modes. The Plan included a wide range of potential funding options, including TRZs. TRZs were expected to pay for \$56 million in capital expenditures (or 5.6 percent of the Comprehensive Mobility Plan) and to be allocated to three projects.

TRZs have some weaknesses, namely the potential for high variability in revenue based on real estate market fluctuations and potentially slow ramp-up periods for revenue collection, especially if it takes a while for property prices to rise or for a new development to materialize. Because of this, TRZs and similar measures typically are difficult to finance through traditional bond markets. Therefore, El Paso's TRZ projects were financed with State Infrastructure Bank loans, which have lower interest rates and more favorable terms than market debt. These loans did require a backstop from the city of El Paso, the need for which is described in more detail in Chapter 13. El Paso expects to fund a further \$90 million in infrastructure improvements through TRZs as part of its Horizon 2040 plan. Additional information about TRZs, as well as details on the execution of a nonconventional TRZ project, can be found in Appendix Section VII.

**Example 14: Tax Increment Financing Should Be Used with Caution: The Case of Chicago**

In 2017, the city of Chicago had 143 active TIF districts, covering approximately 30 percent of the city. Historically, and according to Illinois law, TIF districts are intended to revitalize distressed

<sup>189</sup> Partners for Mobility, *El Paso MPO 2008 Comprehensive Mobility Plan*, July 2008.

<sup>190</sup> Sharada Vadali et al., "Transportation Reinvestment Zone Handbook," Texas Transportation Institute, <https://trid.trb.org/view/1102394>.

<sup>191</sup> Rafael Aldrete and Sharada Vadali, *Transportation Reinvestment Zones: Texas Legislative History and Implementation*, Texas A&M Transportation Institute, February 2016.

<sup>192</sup> Camino Real Regional Mobility Authority, "Annual Financial and Compliance Reports with Independent Auditor's Report, Years Ended August 31, 2017 and 2016," April 6, 2018.

<sup>193</sup> El Paso Metropolitan Planning Organization, *Amended Horizon 2040 MTP*, February 2018.

neighborhoods. In practice, municipalities have used the technique as a general financing method to stimulate job creation, finance infrastructure, and grow property values. The tool has faced significant public resistance, however.

A 2008 report argued that Chicago's TIF revenues had been disproportionately used to create higher-income housing. It noted that between 1995 and 2008, only 27 percent of the units funded with TIF went to households earning less than \$20,000 annually and only 4 percent of funds were dedicated toward affordable housing.<sup>194</sup> Critics also argued that TIF had diverted property tax revenues from Chicago Public Schools and that it was not subject to the same transparency requirements as the regular budget.<sup>195 196</sup>

In May 2011, then-Mayor Rahm Emanuel announced the creation of a TIF reform panel, admitting that Chicago did not possess a comprehensive policy on TIF usage and that citizens had not been provided with adequate platforms to evaluate TIF performance. In July 2011, an open hearing was held to allow citizens to express their views on TIF reform. The TIF reform panel recommended production of an economic development plan to guide TIF designations, a capital budget subject to city council approval to allocate resources, metrics to evaluate TIF performance, monitoring systems to enhance accountability, 5-year strategic reviews for TIF projects, and enhanced oversight.<sup>197</sup>

The final report of the TIF Reform Task Force in 2018 highlighted four areas of caution: 1) TIF districts that were poorly designed or implemented were unlikely to lead to increased private sector investment, job creation, or higher property values; 2) a financially successful TIF project was no guarantee for meeting the "but for" test,<sup>198</sup> as some districts may have prospered without TIF; 3) TIF districts failing the "but for" test create opportunity costs, because "schools and other units of governments sharing the same tax base with sponsoring governments will not share incremental revenues;" and 4) schools and other municipalities "that lose revenues captured by the TIF sponsor may have to respond by increasing the tax rate to compensate for a stagnant tax base. Although there may be no direct increase in tax rates, there may be an indirect tax rate increase later."<sup>199</sup>

This example illustrates the importance of prioritizing transparency and accountability in TIF districts. Because TIF can be complicated to explain, public resistance is common. Chicago also found that,

<sup>194</sup> Julie Dworkin, "Tax Increment Financing (TIF) Funding and Affordable Housing: An Analysis of Current Tax Increment Financing Resources and City of Chicago TIF-Funded Housing 1995-2008," report prepared by Chicago Coalition for the Homeless on Behalf of the Sweet Home Chicago Coalition, June 2009, [www.mayorsinnovation.org/images/uploads/pdf/3087.pdf](http://www.mayorsinnovation.org/images/uploads/pdf/3087.pdf).

<sup>195</sup> Ted Dabrowski and John Klingner, "Chicago Tax Increment Financing Districts Take Nearly \$500 Million in Yearly Tax Revenues Away from Other Local Governments," Illinois Policy Institute, August 22, 2017, [www.illinoispolicy.org/chicago-tifs-take-nearly-500m-in-yearly-tax-revenues-away-from-other-local-governments/](http://www.illinoispolicy.org/chicago-tifs-take-nearly-500m-in-yearly-tax-revenues-away-from-other-local-governments/).

<sup>196</sup> Chris Lentino, *Nearly a Third of Property Tax Revenue in Chicago is Diverted into 143 Tax Increment Financing Districts*, Illinois Policy Institute, July 26, 2018, <https://www.illinoispolicy.org/nearly-a-third-of-property-tax-revenue-in-chicago-is-diverted-into-143-tif-districts/>.

<sup>197</sup> City of Chicago, "Findings and Recommendations for Reforming the Use of Tax Increment Financing in Chicago: Creating Greater Efficiency, Transparency and Accountability," Tax Increment Financing Reform Panel, August 23, 2011, [www.cityofchicago.org/content/dam/city/depts/mayor/Press\\_Room/Press\\_Releases/2011/August/8.29.11TIFReport.pdf](http://www.cityofchicago.org/content/dam/city/depts/mayor/Press_Room/Press_Releases/2011/August/8.29.11TIFReport.pdf).

<sup>198</sup> In most jurisdictions, it must be proven that the area would not develop "but for" the establishment of the tax increment financing district.

<sup>199</sup> Illinois General Assembly, "Final Report of the Tax Increment Financing Reform Task Force."

although it had made a large amount of information on TIF available to the public, it was not necessarily presented in a way that could be easily understood.

## 7.9 Decision-Making Tool

Implementing agencies can use the following tool to assess the appropriateness of TIF for their jurisdiction.

**Table 9. Decision-Making Tool for Tax Increment Financing**

| Focus Area | Questions for Decision Makers   | Possible Next Steps   |
|------------|---|---|
| LEGAL      | <ul style="list-style-type: none"> <li>Does the State allow tax increment financing (TIF)?</li> </ul>   | <ul style="list-style-type: none"> <li>If not, is there a precedent of municipalities using TIF without State enabling legislation?</li> </ul>  |
|            | <ul style="list-style-type: none"> <li>Does legislation require a condition of “blight”<sup>200</sup> and that a TIF meet the “but for” test?<sup>201</sup></li> </ul>  | <ul style="list-style-type: none"> <li>If yes, consider procuring economic studies to ensure that the planned TIF district meets the requirements of “blight” and “but for.”<sup>202</sup></li> </ul> |
|            | <ul style="list-style-type: none"> <li>Does the legislation impose implementation requirements in terms of drafting project and redevelopment plans, holding public hearings, and requiring approval by elected officials?</li> </ul> | <ul style="list-style-type: none"> <li>If yes, have the project implementation plans sufficiently met legal requirements and has enough time been budgeted to complete them?</li> </ul>               |

<sup>200</sup> A 2015 report by the Council of Development Finance Agencies found that a little over half of TIF-enabling statutes listed blight as a requirement for the establishment of a TIF district. Each State defines “blight” differently. Council of Development Finance Agencies, “Tax Increment Finance State-by-State Report: An Analysis of Trends in State TIF Statutes,” 2015.

<sup>201</sup> The “but for” test involves demonstrating that the new development funded through TIF revenues would not have happened if it had not been for the use of TIF. Some States have stricter requirements than others for establishing the “but for” causation. For an example of the “but for” test, refer to the website of the Minnesota Legislature: <https://www.house.mn/hrd/issinfo/tif/butfor.aspx>. More information on the “but for” and “blight” tests can also be found at the following source. Nicholas Greifer, “An Elected Official’s Guide to Tax Increment Financing,” *Government Finance Officers Administration*, 2005, <https://www.gfoa.org/sites/default/files/EOGTIF.pdf>.

<sup>202</sup> Greifer, “An Elected Official’s Guide to Tax Increment Financing.”

| Focus Area          | Questions for Decision Makers   | Possible Next Steps  |
|---------------------|---|--|
| ECONOMIC AND EQUITY | <ul style="list-style-type: none"> <li>Is the use of TIF expected to redirect property tax revenues away from schools?</li> </ul>   | <ul style="list-style-type: none"> <li>If yes, consider creating an agreement with schools and other governments by which they would share in the upside of the increased property tax revenues by receiving fixed payments over a period.</li> </ul>  |
|                     | <ul style="list-style-type: none"> <li>Is there a risk that the TIF may disproportionately benefit higher-income housing or price out current residents?</li> </ul>                     | <ul style="list-style-type: none"> <li>If yes, consider undertaking additional economic studies in order to determine the impacts of the TIF on equity.</li> <li>If yes, consider incorporating affordable housing into the redevelopment project.</li> </ul>  |
|                     | <ul style="list-style-type: none"> <li>Is the TIF district expected to meet the “but for” test? <sup>203</sup></li> </ul>   | <ul style="list-style-type: none"> <li>If no, then growth may be likely to occur irrespective of the TIF, therefore TIF may not be the most appropriate technique.</li> </ul>  |
| MARKET              | <ul style="list-style-type: none"> <li>In the case in which TIF revenues will back bonds, has the implementing agency assessed whether TIF revenues are sufficiently stable?</li> </ul> | <ul style="list-style-type: none"> <li>If no, research how TIF revenues have performed in other jurisdictions, including which types of market risks jurisdictions are currently facing.</li> </ul>  |
|                     | <ul style="list-style-type: none"> <li>Has the implementing agency undertaken a risk assessment related to future TIF revenues?</li> </ul>  |  |
| POLITICAL           | <ul style="list-style-type: none"> <li>Is the public educated about the functioning of TIF districts?</li> </ul>  | <ul style="list-style-type: none"> <li>If no, consider what techniques will be used to educate the public on the technique and any related projects to ensure public support and also ensure that development and economic activity would not just be relocated from another area—that it would be new development and economic activity.</li> </ul> |
|                     | <ul style="list-style-type: none"> <li>Has TIF been used in the jurisdiction before and, if so, was there any public opposition to the technique?</li> </ul>                            | <ul style="list-style-type: none"> <li>If so, consider investing in a stakeholder study of why the public opposed any previous TIF efforts and how outreach efforts can overcome these difficulties.</li> </ul>  |

<sup>203</sup> Greifer, “An Elected Official’s Guide to Tax Increment Financing.”

| Focus Area     | Questions for Decision Makers   | Possible Next Steps   |
|----------------|---|---|
| IMPLEMENTATION | <ul style="list-style-type: none"> <li>Has the implementing agency assessed whether to utilize a pay-as-you-go approach or a pay-as-you-use approach?</li> </ul>                              | <ul style="list-style-type: none"> <li>If no, consider which steps should be taken to ensure a clear geographic scope, fee structure, fee management, and public support.</li> </ul>  |
|                | <ul style="list-style-type: none"> <li>Has the implementing agency considered the most optimal geographic scope?</li> </ul>   | <ul style="list-style-type: none"> <li>If no, consider undertaking options studies to ensure the geographic scope not only maximizes equity considerations and revenue yield, but also discourages development relocation.</li> </ul> |
|                | <ul style="list-style-type: none"> <li>Has the agency considered the fee structure, including how and when the fee will be charged?</li> </ul>  | <ul style="list-style-type: none"> <li>If no, ensure a clear fee structure is communicated with taxpayers.</li> </ul>   |
|                | <ul style="list-style-type: none"> <li>Has the implementing agency considered how funds will be managed and kept segregated?</li> </ul>   | <ul style="list-style-type: none"> <li>If no, create a clear plan for how TIF revenues will be used to ensure taxpayers understand how fees will be used.</li> </ul>  |
|                | <ul style="list-style-type: none"> <li>Has the implementing agency planned enough outreach efforts within the community?</li> </ul>   | <ul style="list-style-type: none"> <li>If no, invest time in understanding lessons learned from other jurisdictions in terms of building public support for TIF.</li> </ul>   |
|                | <ul style="list-style-type: none"> <li>Has the implementing agency considered the performance metrics to assess progress, including how to ensure transparency and accountability?</li> </ul> | <ul style="list-style-type: none"> <li>If no, consider making these a part of outreach efforts to provide the community and taxpayers with the ability to assess and monitor performance.</li> </ul>                                  |



## 8 JOINT DEVELOPMENT

This chapter provides an overview of at-grade and above-grade joint development approaches that can be used to provide infrastructure or services at lower cost to the public.

### 8.1 At-Grade and Above-Grade Joint Development



Agencies may consider at-grade or above-grade joint development to fund transportation projects, as well as to address other challenges—particularly those of neighborhood connectivity and housing affordability.

At-grade and above-grade joint development can help increase the impact of key infrastructure and revitalize distressed areas, but agencies should take care to ensure these projects do not create or worsen equity issues.

#### 8.1.1 Overview

**Joint Development Definition:** In a joint development project, a public agency or group of agencies partner with a private developer or developers to improve the use of land near, below, or above the infrastructure facility. An agency may solicit private developer involvement and then provide the private partner with access to land near transportation infrastructure. The agency can also alter zoning and other regulations—or at least advocate that with other public bodies—to incentivize the private partner to improve the land. A private developer may also propose a joint development project, in which case the

private partner makes improvements, may share costs with the public sector, and may coordinate in a way to maximize the impact of the transportation improvement. Two types of joint development are discussed in this section:

- **At-Grade Joint Development:** At-grade joint development projects occur within the existing development rights (right-of-way) of a transportation project.
- **Above-Grade Joint Development:** Above-grade joint development projects typically involve the transfer of air rights, which are development rights above or below transportation infrastructure. Structurally, air rights leases and sales are like their at-grade counterparts. However, they allow an agency to potentially unlock more value from an asset and to apply more creativity in deal structuring. The most relevant regulation is the floor area ratio, which is the ratio of a building's floor area relative to the size of the land on which it is built. For example, if a developer owns a plot of land which is 1,000 square feet and the floor area ratio in its jurisdiction is 5:1, the developer can construct a building that is 5,000 square feet. A higher floor area ratio allows a developer to build higher, which is valuable, since developers can build more square feet of building without paying for additional land.

In some locations such as Texas, joint development refers to design-build-operate-finance-maintain public-private partnership (P3) projects. This Manual does not refer to these arrangements in the following discussion of joint development.

**Alternative Terms:** Above- or below-grade joint development is also known as right-of-way (ROW) use agreement.

### 8.1.2 Sectoral Uses

**Highways and Roads:** Joint development can be used extensively for highway and road projects. Traditional at-grade highway and road joint development projects include retail concessions and service stations.<sup>204</sup> There are also many above-grade joint development projects over highways and roads as well, and they are frequently used in areas where the past construction of major highways has divided neighborhoods and eliminated opportunities for development on premium urban land.<sup>205</sup> The Cap at Union Station and Capitol Crossing projects highlighted in Appendix Section IV and Section V, respectively, represent two such projects; Copley Place in Boston is another example. Air rights transfers are also very beneficial in projects above highway ROWs, as developers can access even more floor

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<sup>204</sup> AECOM and Federal Highway Administration Office of Policy and Governmental Affairs, *Case Studies of Transportation Public-Private Partnerships in the United States*, July 7, 2007.

<sup>205</sup> Bonnie Cambell, "Creating Sustainable Air Rights Development Over Highway Corridors: Lessons from the Massachusetts Turnpike in Boston," Thesis, Massachusetts Institute of Technology, <https://dspace.mit.edu/bitstream/handle/1721.1/35695/60250140-MIT.pdf;sequence=2>.



area ratio than in transit station projects. This is because highway ROWs are more extensive and less built up than transit stations and therefore tend to have more unused space available.<sup>206</sup>

**Transit:** Transit stations in high density areas are good candidates for above-grade joint development projects, and many transit agencies throughout the country have engaged in them. Among U.S. cities, New York City first began heavily pursuing air rights transactions in the mid-20<sup>th</sup> century and is presently developing an extensive air rights project known as Hudson Yards that is located on the west side of Manhattan.<sup>207</sup>

### 8.1.3 Implementation and Funding

**Structure and Timing of Funds:** Joint development payments can be made one-time in a land sale or up-front lease payment, or they can be made over time in several installments.

**Sources and Uses of Funds:** Joint development contributions are paid by a developer, property owner, or the owner of a business located at the development site. Joint development projects are often pursued through a ground lease in which an agency offers a developer the right to construct a building on its property for a period of time, typically between 50 and 99 years.<sup>208</sup> While ground leases come close to ownership for a private developer, they do not convey full control of the land, sometimes creating financing challenges.<sup>209</sup> Land sales are another way in which at-grade joint development projects are pursued. While the projects associated with land sales do not necessarily differ from those associated with ground leases, there are key differences between the two transaction methods and different motivations for pursuing each.<sup>210</sup>

Other options available in air rights transactions are the sale of both land and development rights by an agency to a developer that then provides an easement to the agency so as not to limit their access. An agency can also sell the development rights above a property, but not the land, in order to keep more control over the parcel.<sup>211</sup>

**Management of Funds:** Many types of private entities can make joint development payments, including developers, retail stores, and property owners. The funds from joint development can be spent on capital expenses or O&M over time. Funds can be used up front in a pay-as-you-go fashion or to repay associated bonds.

**Ease of Implementation:** Simple at-grade joint development projects such as land sales or leases tend to be easy to implement. On the other hand, above-grade joint development projects are often complicated because of technical challenges, increased costs, more extensive negotiations, and **significant alterations to property rights.**

<sup>206</sup> "Right-of-Way Use Agreements," Federal Highway Administration, [https://www.fhwa.dot.gov/ipd/value\\_capture/defined/row\\_use\\_agreements.aspx](https://www.fhwa.dot.gov/ipd/value_capture/defined/row_use_agreements.aspx).

<sup>207</sup> Daniel Goldstein, "Want to Buy Some Air? Some Cities Have Plenty to Sell," *MarketWatch*, August 4, 2014, <https://www.marketwatch.com/story/want-to-buy-some-air-some-cities-have-plenty-to-sell-2014-08-01>.

<sup>208</sup> AECOM and Federal Highway Administration, *Case Studies of Transportation Public-Private Partnerships in the United States*.

<sup>209</sup> AECOM and Federal Highway Administration, *Case Studies of Transportation Public-Private Partnerships in the United States*.

<sup>210</sup> Metro Transit (Minneapolis/St. Paul, Minnesota), "Ground Leases: A Guide for Developers, Public Officials, and Lenders," 2017, <https://www.metrotransit.org/Data/Sites/1/media/tod/groundleases.3.30.2017.pdf>.

<sup>211</sup> Federal Highway Administration, "Right-of-way Use Agreements."

### 8.1.4 Legal Considerations

**Enabling Legislation and Legal Basis:** As is discussed in Section 12.1, municipalities can play a major role in enabling joint development through changes in key policies such as zoning. States also play an important role in enabling joint development. Many States interested in pursuing joint development projects have recently updated their laws in order to eliminate prohibitions that prevent State DOTs and other relevant agencies from participating in joint development.<sup>212</sup> Such joint development laws may greatly vary in their scope.

Joint development can mean different things in different States. For example, many jurisdictions differ in how they define such projects, with some using very specific definitions that limit the type of joint development project in which an agency can engage. Some have included distance limits as small as a quarter of a mile<sup>213</sup> from a given infrastructure facility for a project to qualify as joint development. Other jurisdictions have applied specific land use standards to joint development.<sup>214</sup> For example, in Maryland only “dense, mixed-use, deliberately planned” developments are considered transit-oriented development and they must also be “within one-half mile of transit stations.”<sup>215</sup> As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

**Federal Requirements:** Agencies utilizing these mechanisms, which wish to maintain Federal eligibility, must meet Federal requirements, including property management and Uniform Act requirements. These are discussed in Section 12.3.

### 8.1.5 Market Considerations

**Challenges:** While air rights alone are sometimes inexpensive, in complex above-grade joint development projects developers often find that funding and financing the construction of cap infrastructure necessary to take advantage of air rights is prohibitive. For example, Akridge, a real estate development company, paid only 3.33 cents per square foot in 2002 for air rights for a development planned over Washington, DC’s Union Station. Akridge has yet to begin construction on the project in part because it was unable to get bank financing for this cap, which was more accurately termed a “deck.” A

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<sup>212</sup> John Renne et al., “Transit-Oriented Development and Joint Development: Case Studies and Legal Issues,” *Transit Cooperative Research Program: Legal Research Digest* 36, August 2011.

<sup>213</sup> “Maryland Incentive Zones – Designated Transit Oriented Development (TOD Areas),” Maryland Department of Information Technology, accessed December 1, 2015, [http://data.imap.maryland.gov/datasets/c8b282aed4c84bb5a8c991e1a9b7b30e\\_11](http://data.imap.maryland.gov/datasets/c8b282aed4c84bb5a8c991e1a9b7b30e_11).

<sup>214</sup> “Article XXXI, TD Transportation District,” Township of Willistown, Chester County, Pennsylvania, <https://www.ecode360.com/11716603>.

<sup>215</sup> Maryland Department of Information Technology, “Maryland Incentive Zones.”

cap does not provide traditional collateral in the event of default, as would a building or actual land.<sup>216</sup> Akridge therefore has to finance cap construction internally.

There are very few projects that are in regions with high enough land value that the additional costs of a cap can be justified. For example, the developer responsible for Capitol Crossing noted that “there are only two cities where land value is high enough and they are New York and Washington, DC. There aren’t just empty sites just sitting around.”<sup>217</sup> While other cities have successfully constructed decks, the share of public versus private capital invested in these projects should be considered, and public agencies outside of high land-value regions may have to invest more to get these projects built if they view them as critical.

Air rights agreements are mostly only suitable for large cities with transit facilities nearby, due to the low value of air rights outside those areas. Air rights agreements are highly sensitive to the real estate market, as they often are large, somewhat risky investments and are therefore more impacted by a downturn. Additionally, air rights agreements may be dependent on the construction and/or renovation of key infrastructure and may therefore have several starts and stops as developers wait for an agency to complete the linked infrastructure project. Finally, if transportation infrastructure built as part of a joint development is significantly less desirable than expected, an air rights project may also be less successful than anticipated and private developers may lose out.

**Opportunities:** Air rights transactions create significant benefits for developers, namely the opportunity to have access to prime real estate near key transportation infrastructure in cities where land is expensive and developers do not have space for construction. As such, developers can also charge high rental rates or sell property at a high value. If a joint development project involves retail, location by critical infrastructure can also drive increased customer access and higher sales. Joint development projects can often also help revitalize a neighborhood. As such, the areas they occur in may experience higher levels of safety and lower crime rates, which make them more attractive. Finally, the transportation infrastructure built out of joint development can be aesthetically pleasing and fit urban planning best practices, making it even more valuable to developers and a good location in which to make an investment. A private company—whether a developer, retailer, or landowner—that is one of the first to locate in such a developing environment has the potential for significant investment upside.

### 8.1.6 Political Considerations

**Challenges:** Joint development can create public resistance, especially those that involve air rights or lead to the creation of tall buildings. The construction of transportation and real estate assets makes the surrounding land more valuable, while also changing a neighborhood’s aesthetics and creating traffic impacts. Because of myriad impacts, policies that facilitate joint development through dense zoning can unite two factions that are often in conflict, namely affordable housing advocates and landowners.

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<sup>216</sup> Goldstein, “Want to Buy Some Air?”

<sup>217</sup> Jonathan O’Connell, “Developer: Capitol Crossing Is ‘Very Tough to Get,’ but Will Be Worth It,” *The Washington Post*, December 11, 2014, <https://www.washingtonpost.com/news/digger/wp/2014/12/11/developer-capitol-crossing-is-very-tough-to-get-but-will-be-worth-it/?noredirect=on>.

**Opportunities:** The politics of joint development are driven by market and equity considerations. Developers tend to prefer it because it allows them access to a highly coveted and high value piece of land. Advocates for transportation and urban planning often also like joint development because it helps support transportation funding, incentivizes use of transportation, and encourages density, efficiency, and more walking and biking and less driving. Affordable housing advocates sometimes like joint development, as long as it leads to the creation of affordable housing. However, they may oppose it if it leads to gentrification and drives existing residents away.

### 8.1.7 Economic and Equity Considerations

**Challenges:** The construction of transportation assets, their associated joint development projects, and joint development-friendly zoning policies are often linked to the growth of the real estate market. Transportation and joint development both drive housing demand in neighborhoods in accessible parts of town, where younger individuals with more disposable income increasingly seek to live. They are often attracted to joint development projects with a variety of amenities. This catalyzes a cycle of increased development, land value increases, and more municipal revenue from property taxes and other fees. However, these changes have potential negative side effects as well, most notably gentrification, where significant increases in property values also increase housing prices and rents for existing residents. These shifts can make a neighborhood unaffordable for low-income residents, forcing them to relocate. Joint development projects and policies should include strong affordable housing protections in order to limit this impact. If Federal money is involved in a project, it must also go through a National Environmental Policy Act process, and environmental justice would be a key component.<sup>218</sup>

**Opportunities:** In addition to providing agencies with an alternate source of funding and developers with prime real estate, air rights projects can often be used to accomplish broader social and equity goals. Some of these projects are spurred by a desire to better integrate a city or neighborhood, and as such improve access to transportation as well as connectedness to other neighborhoods and walkability. For example, one of the central purposes of The Cap at Union Station joint development project (see Appendix Section IV) was to construct a platform for pedestrians and drivers to traverse two adjacent neighborhoods that had long been cut off from one another after the construction of a major highway. In addition to the Ohio cap, several other cap or deck projects have been completed or are in the planning phase. Currently, Dallas, Atlanta, Houston, Minneapolis, Seattle, and Santa Monica have cap projects underway or are considering them.<sup>219</sup>

While many of the cap projects constructed so far have been parks, there remain many opportunities for joint development partnerships, especially for those caps planned in areas with high-value land. For example, Atlanta's Stitch, which is presently in the feasibility phase, would cover the city's Downtown

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<sup>218</sup> Casey Dawkins and R. Moeckel, "Transit-Induced Gentrification: Who Will Stay and Who Will Go," Presented at the Transit-Oriented Development and Urban Form Symposium, October 18, 2014, <http://www.umsmartgrowth.org/what-we-do/research/research/casey-dawkins/>.

<sup>219</sup> Martha Moore, "More Cities are Banishing Highways Underground – and Building Parks on Top," *Stateline*, an initiative of the Pew Charitable Trusts, April 2, 2018, <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2018/04/more-cities-are-banishing-highways-underground-and-building-parks-on-top>.

Connector highway and link the neighborhoods of central Atlanta. Its construction would unlock highly valuable property in the city's central business district. Early estimates have suggested that the Stitch would cost \$300 million and have an economic impact of \$3 billion. If these studies are accurate, joint development could be a sensible part of the funding mix for this project.<sup>220</sup>

Additionally, in increasing floor area ratio for developers, agencies can reduce sprawl and sometimes improve affordability if the development includes the explicit requirement that residential developers construct a certain number of affordable housing units. Many of these projects also involve the construction of spaces that are well-designed central hubs including amenities such as retail outlets, areas to exercise, and green space. When designed well, these projects can also connect separated and distressed neighborhoods, often spurring rejuvenation.

### 8.1.8 Case Studies

Example 15 and Example 16 describe highway and transit air rights projects.

#### Example 15: Reno I-80 Air Rights Project<sup>221 222 223</sup>

In the early 1970s, I-80 was constructed to replace U.S. Highway 40 through the city of Reno, NV. The construction created a large gap through the city. A private developer constructed a concrete and steel cap and secured an air rights lease from the Nevada DOT with plans to build a hotel-casino. Ultimately, the main lender for the developer backed out of the hotel-casino project, and the Nevada DOT took ownership of the deck. By 1998, the platform began to deteriorate, and the Nevada DOT expected to demolish the structure. However, a major drugstore chain expressed interest in upgrading, leasing, and constructing a store on top of the deck. The city and Nevada DOT were initially skeptical of this plan, hoping for a larger investment, but given the lack of interest from hotel or casino developers, the lack of drugstores or grocery stores in the area, and the cap's proximity to a major university, they warmed up to the idea. Given the cap's prominence, the drugstore and its architects also had to provide an aesthetically pleasing design in order to get the city's approval.

The architects hired by the drugstore chain rehabilitated the deck and constructed the store over the course of 4 years without needing to shut down the highway below. It ran into some permitting issues given that, at the time, Nevada law did not permit advertising on a freeway structure. The project stakeholders were ultimately able to get the Nevada Legislature to pass a statute to display the company's name. In total, the project cost \$4 million in capital expenditures, including the costs of rehabilitating the cap. Meanwhile the drugstore agreed to pay about \$25,000 per year to the Nevada DOT for 60 years. After the building was completed in 2002, it won an award for outstanding

<sup>220</sup> Josh Green, "Where Downtown Atlanta's Highway-Capping Stitch Would Go, in Photos," *Curbed Atlanta*, February 27, 2018, <https://atlanta.curbed.com/atlanta-photo-essays/2018/2/27/17059266/downtown-atlantas-stitch-highway-capping-park-photos>.

<sup>221</sup> Karl Breckenridge, "The Walgreens Atop the I-80 Freeway," *Reno Gazette Journal*, May 13, 2016, <https://www.rgj.com/story/life/2016/05/13/breck-walgreens-atop-80-freeway/84345082/>.

<sup>222</sup> "State Owned Leased Property," Nevada Department of Transportation, May 2015, <https://www.nevadadot.com/home/showdocument?id=1751>.

<sup>223</sup> "Spanning the Gap—the I-80 Walgreens," BJC Architecture & Engineering, <http://www.bjginc.com/What-We-Do/I80-Walgreens/i80-walgreens.html>.

achievement in structural civil engineering from the American Society of Civil Engineers. Today, it is one of the drugstore chain's busiest locations in the country.

### Example 16: Atlanta's MARTA Engages in Joint Development at Five Stations

Atlanta, GA's Metropolitan Atlanta Rapid Transit Authority (MARTA) began its joint development program in 2001, but despite a major transaction in the early 2000s, the program did not truly take off until 2013 when MARTA sought to enter into agreements to develop land near five of its rail stations. Currently, MARTA engages in air rights leases above its rail stations and ground leases for land adjacent to its stations. It was projected to receive \$7.4 million from current lease obligations in 2018. MARTA engages in a wide range of joint development transactions, and one of its most common strategies is to replace underutilized parking lots near metro stations with mixed-use commercial and residential developments. In addition to the revenue and ridership benefits of MARTA's joint development projects, the agency is also seeking to increase density, create jobs, and ensure a supply of affordable housing with easy access to transit stations.

#### 8.1.9 Decision-Making Tool

**Table 10. Decision-Making Tool for Joint Development**

| Focus Area          | Questions for Decision Makers   | Possible Next Steps   |
|---------------------|---|---|
| MARKET              | <ul style="list-style-type: none"> <li>• Are adjacent air rights available near key existing or new transportation assets?</li> <li>• Do land values and consumer preferences justify dense, multilevel construction near key existing or new transportation assets?</li> </ul> | <ul style="list-style-type: none"> <li>• If yes, consider beginning internal discussions and discussions with real estate developers about potential air rights joint development opportunities near transportation assets.</li> <li>• If no, consider other, more modest joint development opportunities, such as retail concessions.</li> </ul> |
| LEGAL               | <ul style="list-style-type: none"> <li>• Does the law prohibit State DOTs from engaging in joint development projects?</li> </ul>   | <ul style="list-style-type: none"> <li>• If yes, review any joint development legislation under consideration in the State or relevant legislation in peer States.</li> <li>• If no, determine restrictions on joint development projects and requirements to ensure it can benefit from joint development classification.</li> </ul>             |
| ECONOMIC AND EQUITY | <ul style="list-style-type: none"> <li>• Is there a risk that joint development may disproportionately benefit higher-income housing and price out current residents?</li> </ul>  | <ul style="list-style-type: none"> <li>• If yes, consider undertaking additional economic studies in order to determine the impacts on equity.</li> <li>• If yes, consider incorporating affordable housing requirements into the project.</li> </ul>   |

| Focus Area     | Questions for Decision Makers   | Possible Next Steps  |
|----------------|---|--|
| POLITICAL      | <ul style="list-style-type: none"> <li>Is there a strong “not in my backyard” and/or historical preservation lobby in the jurisdiction?</li> </ul>    | <ul style="list-style-type: none"> <li>If yes, begin discussions with potential opposition; also ensure affordable housing protections so as to build alliances with affordable housing advocates.</li> <li>If no, move forward with research into legal feasibility of joint development projects.</li> </ul> |
|                | <ul style="list-style-type: none"> <li>Is the public educated and aware of joint development projects?</li> </ul>                                     | <ul style="list-style-type: none"> <li>If no, consider an expansive public outreach approach which addresses benefits, risks, and common misconceptions regarding joint development.</li> </ul>  |
| IMPLEMENTATION | <ul style="list-style-type: none"> <li>Does the agency desire to maintain control over the joint development structure over the long-term?</li> </ul> | <ul style="list-style-type: none"> <li>If yes, consider structuring the transaction as a lease.</li> <li>If no, consider structuring the transaction as a land sale.</li> </ul>  |
|                | <ul style="list-style-type: none"> <li>Does implementation of the project require the construction of a cap?</li> </ul>                               | <ul style="list-style-type: none"> <li>If yes, determine if a major roadway or rail line will need to be shut down for a long time and plan a public outreach strategy.</li> </ul>   |

## 8.2 Utility Joint Development



Agencies may consider utility joint development to take advantage of the synergies of broadband and other utilities with highway ROW.

Utility joint development can reduce delivery costs for broadband, but comes with other costs. Agencies should consider how these arrangements are regulated and compensated to ensure they are beneficial for all parties.

### 8.2.1 Overview

**Definition:** The most common types of utility joint development opportunities involve fiber optics, gas pipelines, solar panels, and electrical utilities. Private companies and developers often seek to share an alignment with a roadway or rail line as the most cost-effective way to provide their service. Of note, some utility infrastructure described in this Manual is actually at-grade, as placing utilities below roadways (especially in brownfield projects) can be expensive. Additionally, this section focuses primarily on fiber optic and telecommunications, although other utility uses are also relevant.

**Alternative Terms:** N/A



### 8.2.2 Sectoral Uses

**Highways and Roads:** Utility joint development can have synergies with roadway alignments. For example, highway rights-of-way connect key population centers and businesses and are therefore an efficient path for broadband utilities to follow. Additionally, given the historic investment in highways near rural areas, connecting outlying and rural areas is less prohibitive if following this existing ROW. Example 17 in Section 8.2.8 illustrates an example of utility joint development implementation for roadways in the State of Utah.

**Transit:** Publicly owned railway alignments can also host utility joint development projects, as they share many of the advantages of roadways. However, rail alignments do not, in general, have the geographic reach of roads.

### 8.2.3 Implementation and Funding

**Structure and Timing of Funds:** Funds can be collected up front, over several years, or a combination of both, depending on the specific deal structure.

**Source and Use of Funds:** Broadband firms can cover the capital costs of broadband installation and operating costs or provide in-kind services to State DOTs. This means that broadband providers can give agencies access to their assets in exchange for free or low-cost access to ROW.<sup>224</sup>

Payments for ROW access are not used for long-term financing and are typically used for the broadband project or the ROW under use. There are several arrangements for long-term ROW rental fees payments. They may be calculated on a cost recovery basis for the direct costs of ROW access. In some States cost recovery can also include permitting, application, inspection, infrastructure renovation, and infrastructure protection costs. Some State DOTs charge a ROW rental fee that exceeds cost recovery levels and is based on different calculation methods as described under “Ease of Implementation” (see examples in footnote).<sup>225</sup>

**Management of Funds:** State DOTs manage the fees paid by private utilities for ROW rental.

**Ease of Implementation:** Coordination of utility joint development with highway construction can reduce the costs and complexity of completing such projects separately. This coordination reduces capital costs and costs related to State permits.<sup>226</sup>

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<sup>224</sup> Broadband Deployment on Federal Property Working Group, *Implementing Executive Order 13616: Progress on Accelerating Broadband Infrastructure Deployment*, August 2013, [https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/broadband\\_eo\\_implementation.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/broadband_eo_implementation.pdf).

<sup>225</sup> “State and Local Rights of Way Success Stories,” National Telecommunications and Information Administration, <https://www.ntia.doc.gov/legacy/ntiahome/staterow/ROWstatestories.htm>.

<sup>226</sup> Broadband Deployment on Federal Property Working Group, “*Implementing Executive Order 13616.*”



### 8.2.4 Legal Considerations

**Enabling Legislation:** Except in the case of Interstate highways, State DOTs typically have jurisdiction to determine if a utility joint development project is in line with State regulations. State legislatures often have to pass P3 laws before State DOTs can engage in fiber optic joint development projects. Utility joint development can be restricted by State laws that disallow utilities on certain transportation corridors, do not permit in-kind payments, or require that utilities get free access to ROW.<sup>227</sup>

**Other Considerations:** Utility joint development projects involve a high level of regulatory complexity, especially because the regulatory environment is changing as the Federal Government and States seek to accommodate fiber optic technology. The key consideration of most State transportation regulations is safety and operations, with aesthetics a secondary consideration. These concerns are balanced with the goal of broadband expansion and implementation of cutting-edge innovations benefiting from broadband access.

Utility joint development projects must also address the Federal requirements for utility accommodation. These are in place to ensure the design, location, and manner in which utilities use and occupy the ROW conforms to the clear roadside policies for the highway involved and otherwise provides for a safe traveling environment.<sup>228</sup> Another legal consideration, particularly in western States, is simply whether the highway ROW is owned in fee or not. For example, where highways cross Federal land, typically the State DOT only has an easement. A highway easement may not provide sufficient rights for the State DOT to rent out space for utilities.

### 8.2.5 Market Considerations

**Challenges:** The business case for joint development with utilities is heavily influenced by State regulations. The advantages of utility infrastructure are often limited by operational, safety, regulatory, and maintenance concerns. Therefore, it is not deployed as often as expected. Some public agencies have arrangements where utilities can place infrastructure along a ROW if they are willing to pay a fee or make a lease payment, while others allow in-kind payment. The latter is especially relevant for telecommunications utilities in which an agency is allowed to make use of ROW in exchange for usage of dark fiber, a communication service, or a combination of services.<sup>229</sup> Such in-kind payment arrangements can be especially valuable as transportation agencies pursue intelligent transportation systems.

For compensation that is not based on cost recovery, calculating the rental fees from a private utility to a public agency for ROW uses can be challenging since the land use differs between projects, and road

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<sup>227</sup> Associate Administrator for Infrastructure Thomas D. Everett to Directors of Field Services, Division Administrators, and Federal Lands Highway Division Engineers, June 28, 2017, "Information: Utility Accommodation and Other Uses of Highway Right-of-Way," Federal Highway Administration, <https://www.fhwa.dot.gov/utilities/170628.cfm>.

<sup>228</sup> Further information on this requirement can be found on the Federal Highway Administration website at: <https://www.fhwa.dot.gov/utilities/170628.cfm>.

<sup>229</sup> Broadband Deployment on Federal Property Working Group, *Implementing Executive Order 13616*.

corridor characteristics are not always comparable. Additionally, regulations which differ across States affect how utility ROW access can be valued. The simplest method is to assess the value of the land that the utility infrastructure passes through, based on appraisals involving nearby properties. An additional consideration when determining the maximum compensation to a State for ROW access is the cost of alternative routes to the user, as well as the breakeven points and projected internal rate of return under various scenarios.<sup>230</sup>

**Opportunities:** Over time, State DOTs have been more open to allowing utility and telecommunications firms to access their ROW. Many projects with for-profit utilities have been implemented as shared resource agreements, under which an agency gives a company permission to build telecommunications infrastructure on its highway ROW. These agreements then allow the company to access its infrastructure as needed and the private company pays for ROW usage while also taking care of its construction and maintenance costs.<sup>231</sup>

Because of the synergies between road rights-of-way and broadband networks, the Federal Government and many States are increasingly looking toward “dig once” policies, which require installation of fiber optic conduit during road construction.<sup>232</sup> This solution only increases roads costs by 1 percent while reducing fiber optic construction costs by 33 percent.<sup>233</sup> Providing a provision for utilities was also an aspect of the Ohio Cap at Union Station case, as discussed in Appendix Section IV.

Solar panels on DOT-owned ROW also provide opportunities to generate revenue or offset expenses. A dozen State DOTs have utilized their ROW for solar panels to generate power for and reduce their operating expenses.<sup>234</sup>

### 8.2.6 Political Considerations

**Challenges:** Political opposition may come from the following groups, among others: incumbent telephone companies, incumbent cable companies, transportation agencies, and public works departments. Opposition from incumbent cable and telephone providers is motivated by the fact that they invest in their own infrastructure and “dig once” lowers their competitors’ barriers to enter the market. For transportation agencies and public works departments, these rules can make often complex road projects even more technically challenging, time-consuming, and expensive. Utilities may need to be relocated in the future if the road or utility is upgraded. Also, the utility will disrupt traffic if utilities are placed under the roadway and need future repair.

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<sup>230</sup> Broadband Deployment on Federal Property Working Group, *Implementing Executive Order 13616*.

<sup>231</sup> Broadband Deployment on Federal Property Working Group, *Implementing Executive Order 13616*.

<sup>232</sup> Sally Aman, “Dig Once: A Solution for Rural Broadband,” *USTelecom*, April 12, 2017, <https://www.ustelecom.org/dig-once-a-solution-for-rural-broadband/>.

<sup>233</sup> Aman, “Dig Once.”

<sup>234</sup> Gina Filosa and Carson Poe, “An Array of Possibilities,” *Public Roads*, <https://www.fhwa.dot.gov/publications/publicroads/15sep/oct/02.cfm>.

**Opportunities:** Federal and State agencies are extensively discussing “dig once” legislation, in large part because of the significant savings associated with implementing these policies. In addition to strong support from broadband advocates, particularly those seeking to expand rural broadband, many incumbent internet service providers have begun to support these policies. They view the cost savings and advantages of ROW access as outweighing the threat of increased competition. State DOTs also have incentives to support policies that promote utility joint development, since they are becoming increasingly reliant on technology requiring broadband.<sup>235</sup>

### 8.2.7 Economic and Equity Considerations

**Challenges:** Utility joint development can be challenging where an existing ROW is renovated to accommodate underground utility cables.

**Opportunities:** ROW is easier to obtain in a negotiation than privately owned land, which has many stakeholders with different interests and varying willingness to compromise. Additionally, it is less expensive than obtaining easements on private property or even leasing on other rights-of-way, such as railroads. Other advantages of accessing highway and road networks over other alternatives are that they are extensive as compared to the rail system and have more open areas for construction than private land. This efficiency and lower cost of installation makes expanding broadband to low-income and low penetration areas, particularly in rural areas, more financially feasible.

### 8.2.8 Case Studies

#### Example 17: Utah Department of Transportation Broadband Program<sup>236 237</sup>

The State of Utah has been a pioneer in implementation of utility fiber optic projects. In 1999, Utah passed S.B. 150, which permitted telecom providers to access interstate ROW. Through the Utah DOT (UDOT), the State has utilized P3s to install conduit and fiber to support Intelligent Transportation Systems, as well as to provide broadband to underserved areas. UDOT applies the following best practices:

- Installation of fiber optic conduit with excess capacity during road construction projects. Broadband companies can use this conduit and, in exchange, the State of Utah can use private conduit free of charge.
- Installation of small amounts of conduit in underserved areas, reducing installation costs to telecom providers, thereby incentivizing providers to lay fiber in rural areas where fiber installation would otherwise be cost-prohibitive.

<sup>235</sup> Jon Brodtkin, “Dig Once’ Bill Could Bring Fiber Internet to Much of the US,” *Ars Technica*, March 22, 2017, <https://arstechnica.com/information-technology/2017/03/nationwide-fiber-proposed-law-could-add-broadband-to-road-projects/>.

<sup>236</sup> Tara N. Thue and Kelleigh W. Cole, *Utah Broadband Advisory Council Report*, Utah Broadband Project, June 19, 2012, <https://broadband.utah.gov/wp-content/uploads/2014/11/utah-broadband-advisory-council-report3.pdf>.

<sup>237</sup> Utah Department of Transportation, *How a State Agency Can Drive Fiber Deployment*, Nevada Governor’s Office of Science, Innovation & Technology, 2016, <http://osit.nv.gov/uploadedFiles/ositnvgov/Content/Meetings/Broadband/2016/UTAH%20FIBER%20EXPANSION%20MODEL%20-%20V-2.pdf>.

- Coordination with industry players—collaborating on mapping of fiber assets, construction planning, aligning of excavation priorities, and providing assistance on ROW acquisition and permitting—to make laying of fiber less expensive and more efficient.
- UDOT fiber projects and transactions with providers are overseen by the Telecommunications Advisory Council appointed by the governor. This organization advises UDOT on telecommunications issues and works with Utah’s Broadband Advisory Council to shape broadband policy and guide government employees on State broadband issues and activities.



## 9 NAMING RIGHTS



Agencies may consider naming rights for transit stations, rest stations, and agency-owned fleets as a relatively straightforward way to raise funds.

Naming rights can raise moderate sums of money for transportation projects, but these cash flows have to be weighed against the reputational risks of naming rights projects, as constitutional free speech and equal protection clauses prevent agencies from limiting the types of organizations that can purchase naming rights from them.

### 9.1 Overview

**Definition:** In a naming rights transaction, an agency sells the rights to name infrastructure to a private company. This type of value capture does not have to involve a traditional real estate developer, it can involve any private company that is looking to advertise.

**Alternative Terms:** N/A

## 9.2 Sectoral Uses

**Highways and Roads:** The most significant roadway naming rights agreements are for rest areas and welcome centers, where advertising is permissible if it cannot be seen by highway mainline traffic.<sup>238</sup> Many State DOT vehicle fleets are also part of naming rights agreements, typically emergency and repair vehicles, including the Ohio DOT's (see Example 18 in Section 9.8).

**Transit:** Transit stations have also been able to secure significant naming rights agreements. One of the earliest transit naming rights agreements in the country is for the former Pattison Avenue station in Philadelphia, now known as NRG station.

**Other Sectors:** Publicly owned stadiums are the most common public infrastructure naming rights examples.

## 9.3 Implementation and Funding

**Structure and Timing of Funds:** Naming rights payments are typically made on an annual basis over the course of several years until a naming rights contract expires.

**Source and Use of Funds:** In naming rights agreements, a firm pays for naming rights over several years. These monies can be used to fund either capital or operating expenditures, although more often for the latter. They are not typically used to repay bonds.

**Management of Funds:** Naming rights funds typically go toward a transit or transportation agency's operating budget.

**Ease of Implementation:** Naming rights agreements are not usually complex, as they involve a standard procurement process. However, they should involve a financial feasibility study before implementation so that their potential revenues are accurately gauged.

## 9.4 Legal Considerations

**Enabling Legislation and Legal Basis:** There are several regulations that restrict naming rights application, most notably the Highway Beautification Act of 1965, which restricts advertising in the ROW of certain roads, as this affects safety and aesthetics.<sup>239</sup>

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<sup>238</sup> Daniel Howes, "Highway Beautification Act Limits Cobo's Advertising Options," Interview by *Michigan Radio*, December 17, 2015, <https://www.michiganradio.org/post/highway-beautification-act-limits-cobos-advertising-options>.

<sup>239</sup> Control of Outdoor Advertising, 23 U.S.C. 131 (2012).

Naming rights agreements appear simple on the surface, but implementation of naming rights is potentially difficult. First Amendment principles disallow “viewpoint discrimination,” meaning that a company cannot be excluded from a naming rights transaction because of its image or business practices or whether it is a match with an agency’s desired image.<sup>240</sup> Additionally, the Fourteenth Amendment of the U.S. Constitution, or the Equal Protection Clause, prevents an agency from rejecting a bidder based on the agency’s politics.<sup>241</sup> Therefore, if an agency rejects a naming rights sponsorship, it could potentially be exposed to legal challenges.<sup>242</sup> As with all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

Portland, ME’s bus service faced controversy over ads promoting a marijuana ballot initiative on its buses.<sup>243</sup> <sup>244</sup> Because of the risk of legal exposure, the Los Angeles Metro canceled its plan to sell station and other naming rights. The Los Angeles Metro found that its policies against companies with “fraudulent, unethical, or prejudicial behavior” would be highly vulnerable on constitutional grounds, and it would be required to approve of nearly any naming rights agreement that satisfied its financial targets.<sup>245</sup>

## 9.5 Market Considerations

**Challenges:** It is important that policymakers temper expectations in relation to how much naming rights agreements can generate and balance this against the risk of legal exposure related to First or Fourteenth Amendment issues. Two of the largest naming rights agreements in transit, the naming rights for a station in downtown Philadelphia and the naming rights for a stadium-adjacent subway station in Brooklyn, generated only about \$1 million per year and \$200,000 per year, respectively. More relevant to roadways, in 2012, Virginia sold the rights to name all 43 of its rest areas for \$2 million per year.<sup>246</sup> Iowa passed naming rights legislation with the expectation of raising significant amounts of funding, but found that the private sector was disinterested.<sup>247</sup> A few jurisdictions have also considered naming rights for prominent bridges, but these have not yet materialized.<sup>248</sup> <sup>249</sup>

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<sup>240</sup> Mark Bartholomew, “There’s a Cost to Metro Naming Rights,” *The Washington Post*, July 17, 2017, <https://www.washingtonpost.com/blogs/all-opinions-are-local/wp/2017/07/17/theres-a-cost-to-metro-naming-rights/>.

<sup>241</sup> Laura Nelson, “Transit Officials Backtrack on Controversial Policy to Sell Naming Rights for Metro Stations,” *The Los Angeles Times*, February 27, 2017, <https://www.latimes.com/local/lanow/la-me-ln-metro-naming-rights-20170227-story.html>.

<sup>242</sup> Bartholomew, “There’s a Cost to Metro Naming Rights.”

<sup>243</sup> Randy Billings, “Portland Buses to Display Marijuana Ads Despite Objections,” *Portland Press Herald*, October 2, 2013, <https://www.pressherald.com/2013/10/02/marijuana-legalization-backers-unveil-bus-ads/>.

<sup>244</sup> Bartholomew, “There’s a Cost to Metro Naming Rights.”

<sup>245</sup> Nelson, “Transit Officials Backtrack.”

<sup>246</sup> Jonathan Kaminsky, “Washington State: Sell Naming Rights to Public Facilities?” *USA Today*, January 27, 2013.

<sup>247</sup> Dave Westburg, “Highway Rights of Way for Sale?” *Billboard Insider*™, May 1, 2018, <https://billboardinsider.com/highway-rights-of-way-for-sale/>.

<sup>248</sup> Kaminsky, “Washington State.”

<sup>249</sup> Westburg, “Highway Rights of Way for Sale?”

**Opportunities:** For companies, the value of naming rights is affected by frequency of use of transportation infrastructure. Naming rights agreements are relatively low risk for a large company since the contracts tend to be small and therefore companies can experiment with them and use them to test new ways to reach a large number of people.

## 9.6 Political Considerations

**Challenges:** Several States have passed naming rights legislation and others are discussing it. Opposition to this legislation has been due to concerns over losing the historic significance of some landmarks, as well as less tangible concerns related to the increased infiltration of commerce into the public space.<sup>250</sup> Additionally, if naming rights agreements result in name changes for transportation infrastructure, a transportation network can become more difficult to navigate.<sup>251</sup> The type of organization that wins a naming rights deal and its behavior may also create political challenges, since controversial organizations cannot necessarily be denied. As such, a public asset sponsored by a company with a controversial reputation could damage an agency's public image.<sup>252</sup>

**Opportunities:** The political opportunity for naming rights is linked to the economic benefits that these transactions create.

## 9.7 Economic and Equity Considerations

**Challenges:** The risk of legal challenges and reputational risk has to be considered in any calculation of the economic benefits from a naming rights transaction.

**Opportunities:** Naming rights can be an alternative source of revenue that requires relatively little investment required from a public agency. An example of how funds from naming rights are spent is shown in Example 18.

## 9.8 Case Studies

### Example 18: Ohio Department of Transportation Naming Rights<sup>253</sup>

The Ohio DOT has explored strategies to raise money through a wide range of naming rights initiatives. In 2014, Ohio DOT entered into a 10-year, \$8.65 million agreement to advertise on its safety patrol vans, which provide assistance to motorists at crash sites. The fleet includes 22 trucks that provide assistance to more than 30,000 drivers each year. Through this sponsorship, Ohio DOT can

<sup>250</sup> Kaminsky, "Washington State."

<sup>251</sup> Nelson, "Transit Officials Backtrack."

<sup>252</sup> Kaminsky, "Washington State."

<sup>253</sup> Ohio Department of Transportation, "ODOT to Launch New State Farm Safety Patrol Fleet," October 30, 2014, <http://www.dot.state.oh.us/news/Pages/2014/ODOT-to-launch-new-State-Farm%C2%AE-Safety-Patrol-fleet.aspx>.



run its safety patrol program without increasing taxes. In addition to Ohio, several other State DOTs sell naming rights for their safety patrol vehicle fleets.



## 10 DEVELOP BUSINESS AND ECONOMIC CASE

This chapter describes how governments set the policy, goals, objectives, and key performance indicators that form the basis of the policy case for a project. These are linked to the business case for a value capture technique through the allocation of costs and risks. This chapter explains how policy makers at the State and local level can achieve alignment of their policy objectives with the business and financial case for value capture techniques. It also discusses how this process can be enhanced through involving stakeholders in the planning process.

### 10.1 Defining Goals and Objectives

It is important that the rationale for pursuing value capture techniques be integrated into an overall coherent policy vision for transportation, mobility, and land use. For value capture to be successful, there should be clearly articulated policy goals with broad stakeholder buy-in. The type of value capture technique pursued should be directly related to achieving those goals. At a general level, the policy planning process involves the articulation of broad policy goals, which should be translated into concrete policy objectives and measured through key performance indicators (KPI).

Policy goals refer to a government's broad objectives for policy making. *Goals* can be defined as statements that describe the fundamental economic, social, and environmental outcomes that a jurisdiction is aiming to achieve through its activities across all sectors (not just transport). As they relate to transportation and development, goals typically fall into broad categories such as the following:

- **Economic**—improving the material well-being of citizens and transportation system users.
- **Environmental**—reducing the impact of the transportation system on the environment.
- **Social**—improving non-economic measures of societal well-being.

Example 19 shows the policy vision for the Bel-Red Street Network in Washington State.

### Example 19: Clear Identification of Vision and Goals in the Bel-Red Street Network

The corridor connecting Redmond, Bellevue, and Seattle in Washington State is one of the fastest-growing areas of the Pacific Northwest. With the Central Puget Sound Regional Transit Authority, known as Sound Transit, expanding the light rail network across metro Seattle, the city of Bellevue saw an opportunity to promote transit-oriented development around the future light rail line—the Bel-Red Street Network—to generate maximum benefit from it.

The city set up a community steering group to guide planning and set overarching goals. The steering group developed a detailed set of goals and targets to transform the 900-acre site into mixed-use, transit-oriented neighborhoods, while improving the environment and creating thousands of new jobs and housing units. The vision defined by the steering group consisted of the following six goals:

- 10,000 new jobs and 5,000 new housing units.
- Transit-oriented developments around light rail stations.
- Restored streams and ecological functions.
- Better local and regional transportation connections.
- New parks, trails, bike paths, and other amenities.
- Significant economic development.

This case is discussed in more detail in Appendix Section II.

The next step in developing the policy case is to translate broad policy goals into specific objectives for various aspects of the transportation program.<sup>254</sup> Table 11 shows an example of broad goals linked to specific objectives.

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<sup>254</sup> “Defining Goals, Objectives, and Targets,” Australian Transport Assessment and Planning, June 22, 2018, <https://atap.gov.au/framework/goals-objectives-targets/2-defining-goals-objectives-targets.aspx>.

**Table 11. Example of Objectives Setting by Category and Area**

| Area                         | Economic Objectives  | Environmental Objectives  | Social Objectives   |
|------------------------------|--|---|---|
| <b>Regional Road Network</b> | Improved economic growth throughout the region               | Reduced pollution and negative externalities from driving         | Better, lower-cost mobility throughout the region                           |
| <b>Municipality</b>          | More efficient connections to the region to spur development | More livable, less polluted community                             | Improved standing of the municipality on measures of social equity          |
| <b>Corridor</b>              | Less congestion due to improved transit-oriented development | Increased share of active modes on corridor                       | Improved access to services and housing for all socioeconomic groups        |
| <b>Interchange</b>           | Better intermodal connections at interchange                 | Active modes and transit incorporated into interchange facilities | Better affordability incorporated into any interchange-adjacent development |

In order to monitor the achievement of objectives, KPIs are used to track progress. KPIs can be tracked against specific value capture methods to measure the extent to which they are helping achieve a government's goals and objectives. Most jurisdictions will have guidelines for developing targets and KPIs. The following SMART<sup>255</sup> criteria are commonly used to guide practitioners in developing KPIs:

- **Specific**—well defined and focused.
- **Measurable**—can be measured to track progress.
- **Achievable**—realistic, practical, and stretching.
- **Relevant**—directly related to objectives.
- **Time-bound**—clear timeframes set for each indicator.

KPIs should incorporate measures that are recognized as reliable and appropriate. This may include meeting legislative criteria or standards set by professional bodies. Where new measures are proposed, consideration should be given to consulting with the relevant stakeholders to ensure a robust indicator is set and to reduce the likelihood of disputes at a later stage. Further discussion on stakeholder consultation is discussed in Section 10.4.

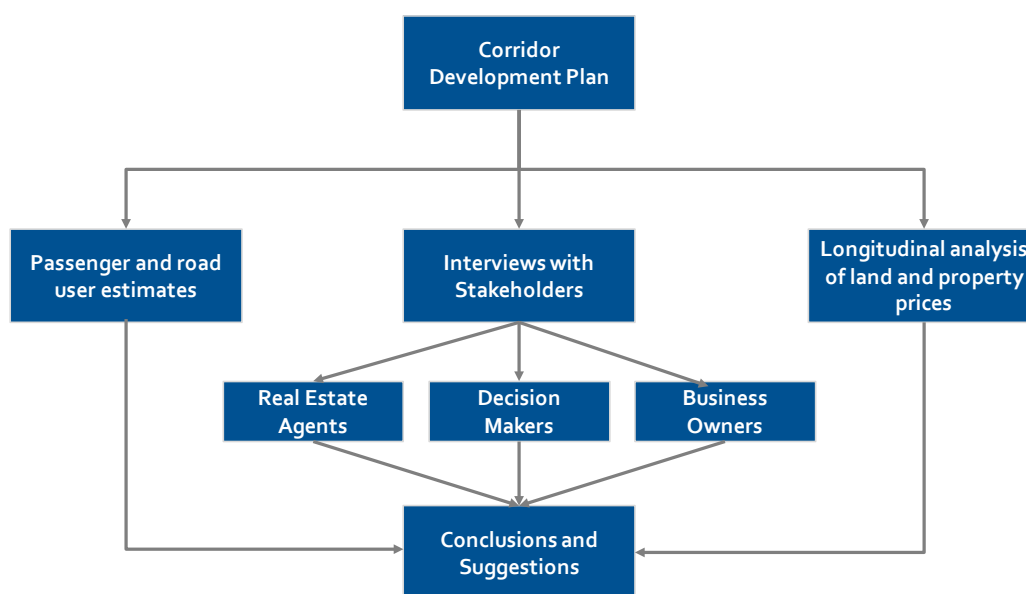
## 10.2 Business and Economic Case Development

Because value capture techniques rely both on public and private coordination, government support alone is not sufficient for their success. There should also be significant private sector support for value capture to work—both from the general landowners (not to be confused with the general public) and the private developers. For the private sector to be supportive, the value capture proposal should convey an appealing business case from both a public and private perspective.

<sup>255</sup> George Doran, "There's a S.M.A.R.T. Way to Write Management's Goals and Objectives," *Management Review*, vol. 70, no. 11, 1981, pp. 35–36.

A key feature of a strong business case is that it be fair and favorable from both a public and private perspective. This means it should have an appropriate distribution of costs, benefits, and risks between both parties. The process of developing a business case for a new value capture initiative requires first defining the investment and then the optimal distribution of costs, benefits, and risk between public and private parties.

Figure 4 shows an example of the process of developing a business case for a value capture initiative. Developing the business case requires gathering both quantitative and qualitative data to understand the full perspective of the costs and risks associated with a project and the associated value capture initiative. A project proponent can then determine an acceptable cost and risk-sharing approach to both the private and public sectors.



**Figure 4. Business Case Development Process**

### Step One: Gather Required Project Information

Developing a business case for a value capture initiative first requires assembling all required corridor information. This includes “hard” data such as user estimates and property market analyses, as well as “soft” data gained through interviews with potential investors and market stakeholders. Much of this information goes into the development of economic impacts by category. In some cases, this may be accompanied by a more formal cost-benefit analysis or even a more general economic impact analysis highlighting non-land-based benefits to parties.

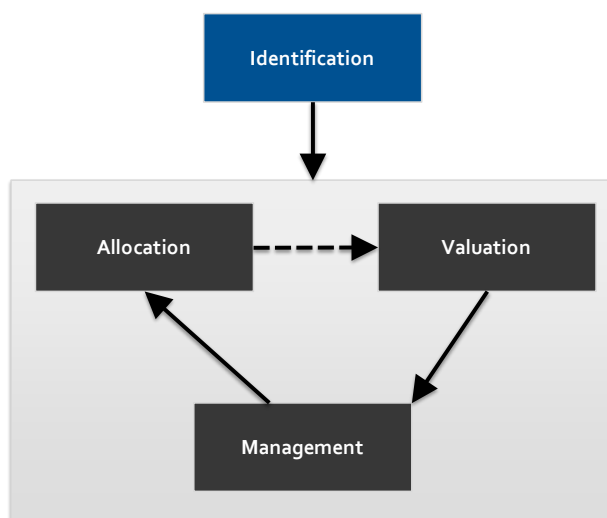
Project-specific information includes data on costs and constructability, such as the following:

- Construction duration.
- Project delivery and timing analysis.
- Resilience analysis.
- Estimated investment cost (broken down by likely investor party).
- Estimated operating costs (broken down by likely investor party).

### Step Two: Determine Project Risks and Appropriate Risk Sharing

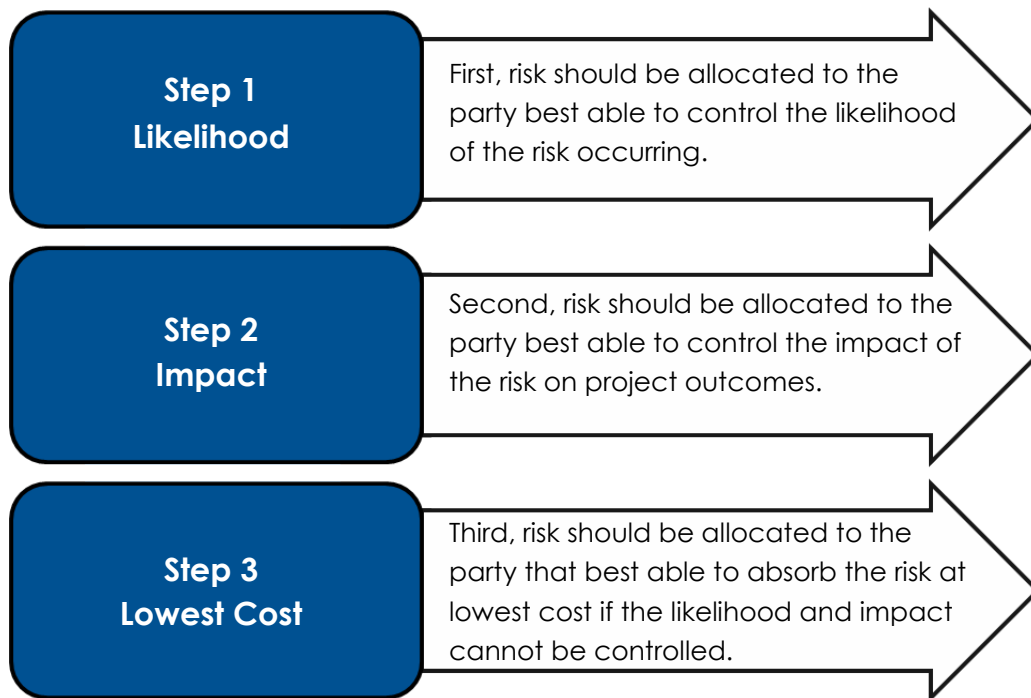
Following are the four major steps in risk assessment, shown also in Figure 5:

- Risk identification.
- Risk management.
- Risk allocation.
- Risk valuation.



**Figure 5. Risk Identification and Valuation**

The risk identification and valuation exercise is interwoven into the risk allocation and management process. Figure 6 illustrates considerations relevant to ensuring risks are allocated appropriately. After the risks and costs are defined, valued, and allocated, the next step is to develop a funding plan for the project based on identified public and private funding needs.



**Figure 6. Risk Allocation Principles**

Detailed guidance on business case development, including risk allocation, can be found in FHWA's *Guidebook for Risk Assessment in Public Private Partnerships*. The approaches described in this guide are geared toward P3s, but can be easily adapted for other methods of alternative delivery, including value capture.



Explore in Detail

[Guidebook for Risk Assessment in Public Private Partnerships](#)

*Federal Highway Administration, December 2013.*

### 10.3 Preliminary Planning and Design Considerations

Preliminary planning and design should always be part of the project delivery process and can lead to more efficient project delivery. Specific preliminary design steps include many early engineering tasks, risk analyses, environmental analyses, and other reviews, such as land ownership, topography studies,

traffic studies, financial analyses, reviews of hazardous materials, estimates of materials and labor needed for final design, and utility reviews.<sup>256</sup>

An agency can realize significant project delivery efficiencies if planning and design occur in tandem with the environmental review process, especially since many preliminary design tasks are linked to the information needed for this process. For example, through preliminary planning design, an agency can determine high-level project location and design ideas, as well as potential alternatives, each of which feeds into environmental review.

For additional environmental review and preliminary planning and design process details, refer to Chapter 4 in the FHWA Office of Federal Lands Highway *Project Development and Design Manual*.



**Explore in Detail**

[Project Development and Design Manual Section 4: Conceptual Studies and Preliminary Design](#)

*Federal Highway Administration, July 2012.*

## 10.4 Involving Stakeholders in the Planning Process

It is critical for sponsors of transportation projects involving value capture techniques to involve stakeholders and foster public involvement. Stakeholder involvement can help improve the project's benefit to the community, municipality, and/or the State, as well as to those specific stakeholders. It can also help mitigate some of the negative impacts of the project and build stakeholder support.

The FHWA Office of Planning, Environment, and Realty describes stakeholder involvement and the public participation process as follows:

Public participation is an integral part of the transportation process that helps ensure decisions are made in consideration of and to benefit public needs and preferences. Early and continuous public involvement brings diverse viewpoints and values into the decision-making process. This process enables agencies to make better informed decisions through collaborative efforts and builds mutual understanding and trust between the agencies and the public they serve. Successful public participation is a continuous process, consisting of a series of activities and actions to both inform the public and stakeholders and to obtain input from them that influences decisions that affect their lives.

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<sup>256</sup> "Clarifying the Scope of Preliminary Design," Federal Highway Administration Center for Accelerating Innovation, July 18, 2016, <https://www.fhwa.dot.gov/innovation/everydaycounts/edc-1/prelimdesign.cfm>.



The public, in any one area or jurisdiction, may hold a diverse array of views and concerns on issues pertaining to their own specific transportation needs. Conducting meaningful public participation involves seeking public input at specific and key points in the decision-making process on issues where such input has a real potential to help shape the final decision or set of actions.

Public participation activities provide more value when they are open, relevant, timely, and appropriate for the intended goal of the public involvement process, providing a balanced approach with representation of all stakeholders and including measures to seek out and consider the needs of all stakeholders, especially those that are traditionally underserved by past and current transportation programs, facilities, or services.<sup>257</sup>

Stakeholders may express objections to the project and/or the value capture technique used in the project. For instance, stakeholders had objections to the Capitol Crossing project (see case study in Appendix Section V) because of its impact on surrounding real estate and the belief that the District of Columbia's compensation for the air rights was not adequate. Therefore, the approaches to addressing and managing stakeholder needs that apply to transportation projects generally also apply to value capture-related projects. Resources on these approaches are noted at the end of this section.

Stakeholders consist of people, groups, and organizations. They take on different roles in the project development process, working with the sponsor of the value capture-related project. They include the following:

- **Municipality or State:** If the sponsor is a transportation agency, such as a regional transportation authority, a municipality may serve as a stakeholder in the development of the project, providing approvals for planning and zoning along with other regulatory approvals. A State DOT may also serve in this role, as the case study on The Cap at Union Station discusses (see Appendix Section IV).
- **Legislature:** The municipality's governing body, such as a city council, may also serve as a stakeholder, independent of the professional staff of the municipality. State legislatures are also stakeholders (refer to the Bozeman case study in Appendix Section III).
- **Neighborhoods and other community groups:** Neighborhoods and other community groups are frequent project stakeholders. These groups may play a reactive role regarding project planning and project impacts, often holding that the new transportation facility will adversely affect their area in terms of increased congestion, construction, and other impacts. In the case of The Cap at Union Station, the less-developed neighborhood north of the cap was instrumental in pushing the city of Columbus to sponsor the project.
- **Developers and other business groups:** Developers may be stakeholders in a value capture-related project, such as, for example, those who felt they were negatively affected by impact fees in Bozeman. The same is true with retailers who feel that transportation construction reduces foot traffic. They may also be important co-project sponsors, as in the

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<sup>257</sup> "Public Involvement/Public Participation," Federal Highway Administration Office Planning, Environment, and Realty, [https://www.fhwa.dot.gov/Planning/public\\_involvement/](https://www.fhwa.dot.gov/Planning/public_involvement/).

case of the Colorado E-470 development (see Appendix Section VI), donating significant ROW to help realize the project. Chambers of Commerce also serve as stakeholders, frequently advocating for projects that spur regional growth.

In the case of transportation value capture projects, it is common for the sponsor to negotiate with several stakeholders to realize a project. In the case of transit projects, it is common for the transit agency to require the local municipality to provide its regulatory approval and for developers to participate in a joint development project or donate land to achieve project benefits.<sup>258</sup>

The process to involve stakeholders, hear their concerns and, in some cases, negotiate with them, takes place in a number of forums. These include meetings and hearings, which are typical in an environmental or planning process that mandates the number and format of such events. It can take the form of legislative deliberations, as in the case of the Bozeman impact fees. It can also take place in the form of referenda, as in the case of U.S. Highway 63 when local citizens along that alignment voted in favor of the project, allowing the special purpose transportation corporation to move ahead with it. Stakeholder involvement can also take the form of a legal process, as happened in Bozeman when a group opposing the impact fee sued the city.

Stakeholders also use social media to express their views on projects. The FHWA has developed recommendations on virtual public involvement, which are referenced at the end of this section.

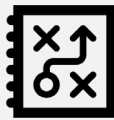
The stakeholder involvement process can take time and can potentially delay a project. Scheduling and holding meetings can add time, especially if additional meetings are required that were not included in the original project development process. Sponsors need to consider this timeline in the context of other project timelines. It is important that project sponsors consider the time required for stakeholder involvement as an opportunity to hear and address public concerns and build support for the project.

Increasing stakeholder buy-in sometimes also comes at a financial cost to project proponents. For instance, some transit value capture projects may require that, in return for increased zoning density, developers make a portion of new housing affordable. In the case of the Atlanta BeltLine, that project's financial capacity was limited by the requirement that some of the TIF revenues be shared with the Atlanta School District. In the case of Capitol Crossing, the District of Columbia prevented the developer from closing parts of I-395 during construction, increasing project costs.

A best practice in development for many transportation projects, especially value capture-related ones, is that the sponsors anticipate and build in a variety of mechanisms to incorporate stakeholders. Sponsors should expect to hear opposition to the project and be prepared to negotiate with stakeholders as is financially, legally, and politically possible. As with any negotiation process, especially in public forums, sponsors need to recognize that not all concerns may be able to be adequately addressed.

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<sup>258</sup> Sasha Page et al., *Transit Cooperative Research Program (TCRP) Report 190: Guide to Value Capture Financing for Public Transportation Projects*, Transportation Research Board, 2016, 44-46.



### Explore in Detail

[Center for Accelerating Innovation: Locally Administered Federal-Aid Projects: Stakeholder Partnering](#)

*Federal Highway Administration, 2019.*

[Office of Planning, Environment, and Realty: Virtual Public Involvement](#)

*Federal Highway Administration, 2019.*

[Public Involvement/Public Participation Portal](#)

*Federal Highway Administration, 2019.*



## 11 ADDRESS REAL ESTATE RISK

Most value capture techniques depend on value creation through real estate development. Public agencies need to understand the profile and stream of revenues created from the value capture-related project, which are principally linked to real estate markets. This chapter highlights the real estate market issues that public agencies and other stakeholders should consider in implementing value capture-related projects.

### Definitions

Real estate consists of land, buildings, and other location-based rights. Real estate assets can usually be freely bought and sold by individuals or companies in a variety of markets.

The real estate market consists of several sectors, including the following:

- Housing, which includes single family and multifamily housing.
- Office buildings.
- Retail, which includes shopping malls, restaurants, and grocery stores.
- Industrial.
- Warehouse and logistics.
- Hospitality.
- Institutional, including public buildings, educational facilities, and hospitals.
- Special purpose, which includes entertainment venues.

Each of these sectors has unique characteristics affecting the level of demand, business cycles, and access to capital. For instance, the single-family housing market may be more heavily affected by interest rates than the warehouse sector. Relatively new financing vehicles, such as real estate investment trusts, have had a major impact on retail developments. New technology, such as online shopping, is transforming the retail sector.

## 11.1 Real Estate Market Drivers

The economy, as expressed in the form of gross domestic product, and demographic changes, as expressed in population change, are major real estate drivers.

These indicators often vary by region, city, or town. The regional variations create differences in local real estate markets. Real estate in a region dominated by commodities, like oil and gas, may exhibit different demand characteristics than real estate in a region dominated by high-tech firms. For example, lower energy costs in the Southern United States play a role in the lower construction costs found in those regions. Access to a city with major sports or entertainment amenities increases demand and real estate prices compared to cities without such amenities.

Other trends that influence real estate market conditions include housing prices, commercial building absorption rates, and other factors as shown in Sidebar 6.

### Sidebar 6. Transportation Factors that Affect Property Values

- Does a property abut multiple streets or roads?
- Is a property along a roadway that has direct access to an interchange?
- Does a property have good accessibility for cars?
- Does a property have good accessibility for large trucks?
- How much traffic is on the road(s) abutting the property?
- Is the property located along a divided highway?
- Is a property near a visible pedestrian or bicycle facility? Does a property have easy access to a transit station, offering bus, light rail, or commuter rail service?
- Does a property have easy access to a passenger intermodal facility such as an intercity train station, an intercity bus station, and/or a commercial airport?
- Does a property have easy access to a freight intermodal facility, such as an intermodal rail yard, a marine port, and/or a commercial airport?

Demographics have a significant impact on real estate supply and demand. For instance, in housing, an aging population has changed definitions of what makes up a household. Changing economics and new locational demands are also affecting demand for housing. Some of these demographic shifts translate into demand for smaller housing units, often in more urban-like settings. There is also new interest in housing that is flexible to adapt to household changes, such as residents aging in place and new forms of

co-habitation, including short-term shared accommodations.<sup>259</sup> <sup>260</sup> In some markets, the short-term rental market is having a material impact on the housing market by taking some rentals out of the market and serving as hotel competition.

Innovations are among the many drivers of the real estate market. For instance, the market for shared office space (coworking space) is quickly changing the office market. In addition, high-speed internet and innovations in connectivity in many areas of the United States may enable more Americans to telecommute. These changes could affect the demand for and location of office space.

This coworking model is being adopted by start-ups, smaller firms, and larger firms seeking flexible office space and ways to reduce costs.<sup>261</sup> A recent Urban Land Institute conference projected that coworking would play a material role in the office marketplace and that by 2030 as much as 30 percent of the office market would be made up of coworking space. This trend could affect the demand for office space, the nature of short- and long-term office space leases, and office space locations.<sup>262</sup>

## 11.2 Real Estate Cycle

Real estate markets are subject to business cycles, resulting in the underlying value and demand for real estate assets changing from one year to the next. Business cycles can have significant consequences for the effectiveness of a value capture technique.

For example, Figure 7 shows Standard & Poor's (S&P)/Case-Shiller 20-City Composite Home Price Index, an index of home values over the period 2000 to 2018, with index changes of a factor of 10 during this period.<sup>263</sup> It illustrates the tremendous swing in the value of much of the U.S. housing market, including during the 2007–2009 recession, when the index lost approximately 50 percent of its value.<sup>264</sup>

Public agencies should incorporate their understanding of a region's real estate market volatility in their value capture plans. A well-built, yet poorly timed joint development office building associated with a new road may not succeed as expected if it opens when office demand is lower than projected. Many economic and demographic factors are subject to volatility, with real estate's volatility exacerbated by the fact that it consists of highly priced assets. These assets are often subject to "price stickiness," i.e., buyers and sellers may not immediately respond to price signals as market theory would hold, sometimes prolonging real estate cycles.

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<sup>259</sup> "Making Room: Housing for a Changing America," *National Building Museum*, Exhibit, December 2017 to January 2019, Washington, DC.

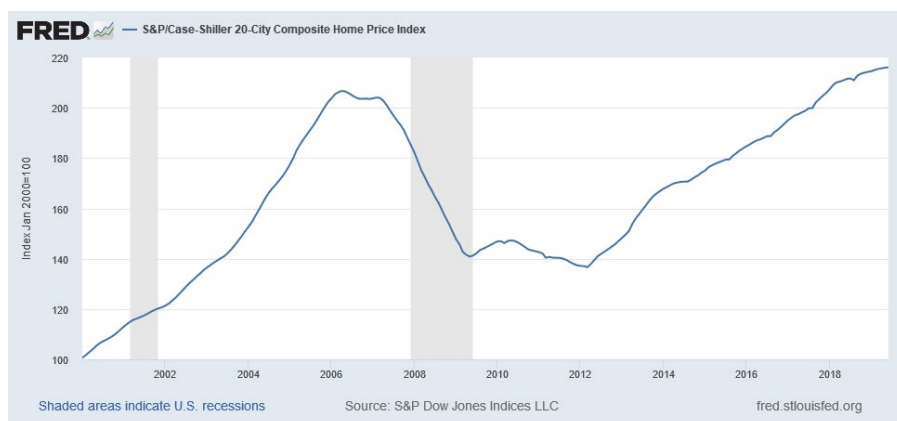
<sup>260</sup> See: <https://www.airbnb.com>.

<sup>261</sup> See: <https://www.wework.com>.

<sup>262</sup> John Egan, "Coworking Spaces Seen as Key Tenant for Houston Office," *Urban Land Magazine*, December 7, 2018, <https://urbanland.uli.org/economy-markets-trends/coworking-spaces-seen-as-key-tenant-for-houston-office/>.

<sup>263</sup> "S&P/Case-Shiller 20-City Composite Home Price Index," Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org>.

<sup>264</sup> "Wilshire U.S. Real Estate Investment Trust Index," Wilshire Associates, n.d., <https://wilshire.com/indexes/wilshire-real-eState-family/wilshire-us-reit>.



**Figure 7. S&P/Case-Shiller 20-City Composite Home Price Index<sup>265</sup>**

Source: ©2016 S&P Dow Jones Indices LLC via Federal Reserve Bank of St. Louis (FRED®)

For example, the Atlanta BeltLine (see Appendix Section I) revised its assumptions for tax allocation district receipts following the 2007–2009 recession, resulting in a program slowdown.<sup>266</sup>

In the case of the Silver Line/Dulles Metrorail (see Appendix Section VIII), the project corridor experienced three business downturns during the period in which the project was planned. The change in assessed value of commercial/industrial property over time is shown in Figure 8. While the assessed value in this area has grown appreciably, the downturn in the early 1990s was devastating to many businesses and could have “de-railed” project support.<sup>267</sup>

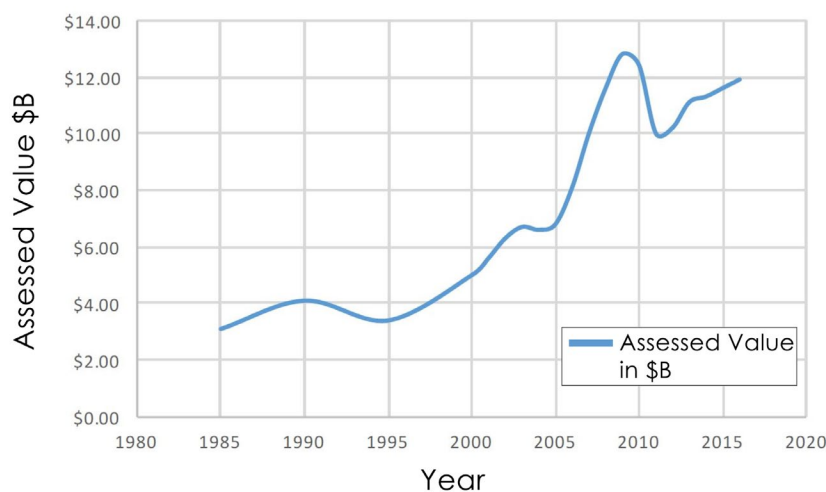
In the Denver Union Station at-grade joint development project, planned since the 1990s, the financial plan for the \$500 million project had to be rethought in 2010 due to the 2007–2009 recession. The sponsors had to abandon traditional financing instruments and pursue financing from the USDOT’s Transportation Infrastructure Finance and Innovation Act (TIFIA) and Railroad Rehabilitation and Improvement Financing (RRIF) programs.<sup>268</sup>

<sup>265</sup> Federal Reserve Bank of St. Louis, “S&P/Case-Shiller 20-City Composite Home Price Index.”

<sup>266</sup> Catherine Owens, “The Atlanta BeltLine,” *Presentation at the Federal Highway Administration EDC-5 Summit*, Baltimore, Maryland, October 18, 2018.

<sup>267</sup> Page et al., *Guide to Value Capture Financing for Public Transportation Projects*, 88-96.

<sup>268</sup> Page et al., *Guide to Value Capture Financing for Public Transportation Projects*, 54-65.



**Figure 8. Phase 1 Dulles Metrorail District Taxable Property Assessed Value**

Source: Fairfax Economic Development Authority

## 11.3 Local Market

Real estate markets can vary enormously within a region. Center city property values and lease rates may be higher than in outlying areas. Residential areas that are in highly rated school districts command higher prices or rents than those that are not. Industrial properties located near highway interchanges are valued higher than those that are hard to access. Even adjacent corridors can exhibit sharp property value differences. For instance, land for gas stations or fast food on a corridor that leads to a major highway can be much more valuable than land that is nearby but lacks such direct access.

While “location, location, location” is the dominant adage in describing how real estate pricing works, this may be better described as “proximity to good transportation, proximity to retail, proximity to employment centers, etc.” Properties that are otherwise similar may vary in value due to proximity to amenities. For instance, numerous studies have shown that housing within one-half mile of a transit station can command values of up to 10 percent more than other, similar properties. Likewise, proximity to highways and arterials is critical for certain types of office and retail properties.

Finally, as with any business affected by human preferences, certain corridors, neighborhoods, and locations become “hot” and exhibit market characteristics that defy expectations based on quantitative analyses. Developers become confident that they can more easily find buyers or lessees in those areas and are willing to pay a premium in terms of land and higher construction costs.<sup>269</sup>

<sup>269</sup> Sharada R. Vadali, Rafael M. Aldrete, and Arturo Bujanda, “Financial Model to Assess Value Capture Potential of a Roadway Project,” *Transportation Research Record: Journal of the Transportation Research Board* 2115, no. 1, 2009, 1-11, <http://dx.doi.org/10.3141/2115-01>.



The converse may also be true. Certain areas have a poor reputation and, as a result, real estate values are lower than expected based on intrinsic property characteristics. Furthermore, an area that is characterized by an abundance of developable land may discourage denser development that frequently benefits value capture efforts.

In the case of The Cap at Union Station, the construction of a retail strip was able to overcome the barrier that an interstate (I-670) created between two neighborhoods in Columbus, OH. One consequence of this barrier was that two very different real estate markets developed over time, despite their close proximity. One neighborhood south of I-670 was relatively thriving as the central business district and the location of a convention center. The other, north of I-670, was struggling with real estate values that were much lower (see Appendix Section IV).

## 11.4 Real Estate Market around Transportation Facilities

Public agencies also need to understand how a specific property or site in question fits into the overall real estate market and how it may be affected by transportation-related decisions. Transportation can impact the value of a property, either causing an increase due to better connectivity or a decrease due to negative externalities such as noise and congestion. Relevant decisions may include zoning differences, street access, or ability to offer amenities. Furthermore, major natural or human-made barriers can significantly affect property values. A large parking garage near one project may reduce the attractiveness of a property to pedestrians, while a neighboring project without such a barrier may be unaffected.

Real estate forecasts need to consider the effect of transportation changes and innovations, including the impact of new technologies and the move to alternative transportation modes. For example, some services provided by transportation network companies compete directly with transit and personal vehicles and may challenge the advantages of being located near a transit station or near certain roads or intersections, as discussed earlier, and shown in Sidebar 7. While the magnitude of changes is yet unknown, these factors are likely to shape various land uses. Other shared mobility modes, such as bicycles and scooters, help to improve the competitiveness of properties that have poorer road or transit connections than otherwise similar properties.

### Sidebar 7. Transportation Industry Changes Affecting Real Estate

- The rise of transportation network companies (TNCs).
- Shared mobility, in the form of car, bike, electric bike, and scooter sharing.
- Increases in commuting by walking.
- Increases in commuting by bicycling.
- Increases in telecommuting and working from home.
- Application of automated vehicle technology.
- Increases in e-commerce and demand for quick turnaround delivery.

## 11.5 New Urbanism, Density, and Value Capture

In transit, value capture techniques (including special taxes, incremental growth techniques, and joint development) are often associated with transit-oriented development. These techniques often result in dense, multi-use, and amenity-rich developments that are located around transit stations. These developments may be characterized by multi-family housing and first-floor retail interspersed with commercial facilities. Examples of transit-oriented development projects include the following:

- Denver Union Station in Denver, CO.
- The Orange Line Corridor in Arlington, VA.
- The State Line Development in suburban Dallas, TX.<sup>270 271 272</sup>

As discussed in this Manual, value capture can also be associated with more traditional development. This was the case with an assessment district around less dense suburban commercial and multi-family housing around the Silver Line/Dulles Metrorail near Washington, DC. However, in that case and similar ones, real estate development patterns and planning were changing as public agencies allowed for increased density in certain portions of the transit project's corridor (see Appendix Section VIII).<sup>273</sup>

For highway and road projects, public agencies also must contend with similar real estate trends. Throughout the United States, developers are building denser, pedestrian-friendly, mixed-use projects that have a similar look and feel to classic transit-oriented development in suburbs and towns. They may be named "town centers" or "lifestyle centers" and are characterized by unique "placemaking." They are usually accessed by car but may also be accessed by rail or bus transit and, in some cases, by bicycle or pedestrian facilities. These include the Mosaic District in Fairfax, VA, Park Potomac in Potomac, MD, and Baldwin Park in Orlando, FL.<sup>274 275 276</sup>

While every real estate project is unique, there are several issues that may affect a public agency's thinking as it investigates implementation of value capture techniques involving highways and roads. The agency should consider how the existing real estate and highway and road characteristics affect potential project plans for development of transportation infrastructure and real estate, as shown in Sidebar 8.

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<sup>270</sup> Page et al., *Guide to Value Capture Financing for Public Transportation Projects*, 54-65.

<sup>271</sup> Hank Dittmar and Gloria Ohland, *The New Transit Town: Best Practices in Transit-Oriented Development*, Washington, DC: Island Press, 2004.

<sup>272</sup> "How Do You Create A City Between Two Cities?" *Omniplan* <https://www.omniplan.com/work/case-studies/cityline.html>.

<sup>273</sup> Page et al., *Guide to Value Capture Financing for Public Transportation Projects*, 88-96.

<sup>274</sup> "Mosaic District," *Mosaic*, <https://mosaicdistrict.com/>.

<sup>275</sup> "Park Potomac," *Park Potomac*, <https://parkpotomac.com/#/>.

<sup>276</sup> Daniel Herriges, "Baldwin Park: A Test for New Urbanism," *Strong Towns*, May 31, 2017, <https://www.strongtowns.org/journal/2017/5/31/baldwin-park-a-test-for-new-urbanism>.

### Sidebar 8. Real Estate and Value Capture Public Agency Considerations

- How does the transportation project link to the development?
- Does the project require the transformation of the highway, such as turning a highway into a boulevard or adding traffic calming measures for local streets?
- Will visitors and residents be encouraged to drop their cars off at parking facilities and use transit, shared mobility options, bicycles, or walk?
- Does the road include less expensive forms of transit, such as bus rapid transit?
- Does the road project include bike and pedestrian facilities? If so, how do these link to the development's street grid, bikeways, and sidewalks?
- With mixed-use developments, do roads and the planned development adequately accommodate truck deliveries to the commercial properties?
- How is the district in a tax increment or a special assessment financing delineated? Is the geographic area shaped around the road corridor, the center of the district, or some other rationale?
- For what purpose can development fees be used? Roads and utility infrastructure only, or bike/pedestrian facilities, street furniture, and transit stations?

## 11.6 Timing

Timing can greatly influence the feasibility and effectiveness of a value capture technique. Timing perspectives can differ among value capture participants, such as a State DOT, regional agency, or a municipal road department. Their perspective may depend on the need for the project and the length of time required to plan and construct it. Improvements to existing roads may require 1–2 years of planning and 1 or more years for construction. Depending on the need for ROW, new roads can take 3–5 years for design and ROW acquisition. Large projects, like a new arterial or interchange, can take 5 or more years to plan and 2–3 years to construct.

A municipal planning agency or zoning board can have similar time horizons, although they may often be affected by the term of policymakers, often a 2- or 4-year cycle.

Developers are highly affected by unpredictable real estate cycles. They are also subject to highly competitive and fast-changing markets, resulting in an environment that may be quite different from one in which transportation agencies and municipalities operate. Timing considerations are summarized in Table 12.

Such differences in time horizons, culture, and risk perspectives should be acknowledged and overcome to the greatest extent possible.

**Table 12. Value Capture Timing Issues by Various Public Sector Stakeholders**

| Stakeholder                | Timing Challenge   |
|----------------------------|--|
| Transportation Agency      | <ul style="list-style-type: none"> <li>• Short- and long-term, from 2 to 10 to as much as 20 years, reflecting the period to plan and construct small street improvements to major highway facilities.</li> <li>• Some public agencies may be directed by board members appointed by policymakers who have a focus on implementing projects within an election cycle.</li> </ul> |
| Local Government           | <ul style="list-style-type: none"> <li>• Short-term: 2–4 years, reflecting political cycles.</li> <li>• Long-term: 10+ years, reflecting planning period.</li> </ul>   |
| Planning and Zoning Agency | <ul style="list-style-type: none"> <li>• Normally 2–5 years, reflecting typical real estate cycles.</li> <li>• Some master plan developers or those with considerable local interest may have much longer time horizons.</li> </ul>  |

## 11.7 Implementation Steps

Successful value capture implementation requires that the real estate market be thoroughly researched so that accurate financial projections can be developed. In addition, if a project funding relies on the use of a value capture technique, the budget and cash flow should be robust enough to survive economic downturns. Furthermore, practitioners should assess legal and political risks to the real estate market as it relates to value capture projects. Sidebar 9 summarizes some of the key real estate market implementation steps, including collecting appropriate data, consulting real estate specialists, and developing feasibility studies and plans.

### Sidebar 9. Key Real Estate Market Implementation Steps Checklist

- Evaluate national, regional, and site-specific market around project using a variety of data, including examining land use characteristics of developed properties along the corridor and nearby intersecting and parallel corridors.
- Consult county and/or municipal public agency staff with real estate expertise, including property tax assessor's office, economic development authority, or planning and zoning department.
- Consult real estate professionals, including developers, brokers, and lawyers.
- As appropriate, develop a project or district feasibility study, including expected build out, timeline, risks, and a contingency plan to mitigate risks.
- Address real estate market needs, including increased density, changes in land uses, and transportation impacts of different uses within the area or district.
- Where appropriate, hold P3 procurement process for joint development projects.

Table 13 summarizes key data that public agencies and stakeholders should consider in analyzing real estate issues. Not all of these data sources are required for all techniques.

**Table 13. Key Data Used in Real Estate Market Analysis**

| Data Category              | Examples   |
|----------------------------|--|
| <b>Economic</b>            | <ul style="list-style-type: none"> <li>• National and regional gross domestic product.</li> <li>• Income and jobs growth.</li> <li>• Spatial distribution of jobs and residential units within the region.</li> </ul>  |
| <b>Demographic</b>         | <ul style="list-style-type: none"> <li>• National and regional population characteristics and growth.</li> <li>• Breakdown of regional population by demographics.</li> </ul>  |
| <b>Real Estate-Related</b> | <ul style="list-style-type: none"> <li>• Land and other building prices.</li> <li>• Rental and lease rates.</li> <li>• Rates of building permit issuance or starts.</li> <li>• Rates of commercial or industrial development starts.</li> <li>• Occupancy rates.</li> <li>• Land values.</li> <li>• Commercial absorption rates.</li> <li>• Zoning along or in close proximity to the corridor.</li> </ul> |
| <b>Site-Specific</b>       | <ul style="list-style-type: none"> <li>• Existing property base.</li> <li>• Planned properties.</li> <li>• Zoning on the site.</li> <li>• Key site-specific amenities.</li> <li>• Lot size.</li> <li>• Existing utilities available for the site.</li> <li>• Developable land, including existing environmental features (wetlands, floodplains, etc.) and slope of the land.</li> </ul>                   |
| <b>Other</b>               | <ul style="list-style-type: none"> <li>• Information on local political climate.</li> <li>• Public attitudes.</li> </ul>   |



## 12 ADDRESS REGULATORY FRAMEWORK

Successful value capture implementation requires an effective enabling environment and supportive public policy at multiple levels. Changes to zoning and land use regulations can help to boost value capture incentives to entice developers. Other statutes, if well thought out, can allow jurisdictions to implement value capture projects and policies. On the other hand, regulations can disincentivize value capture. This chapter summarizes policies that can positively impact the effectiveness of value capture.<sup>277</sup>

Municipalities and counties generally set zoning, land use, and property tax policy.<sup>278</sup> Value capture is most dependent on local initiatives, although some techniques, particularly those that are statewide initiatives or those that apply to a ROW that crosses multiple jurisdictions, require either State involvement or coordination between multiple government bodies. Regardless of whether initiatives are at the local or State level, a supportive State legal and regulatory framework can facilitate value capture funding and financing strategies.<sup>279</sup> Authorizing legislation and taxation/spending authority should facilitate cities' and counties' ability to use value capture fundraising and spending.

Given the number of Federal, State, Tribal, and municipal regulations that can impact the viability of a value capture project, one of the first steps in determining feasibility is to perform a detailed assessment

<sup>277</sup> Page et al., *Guide to Value Capture Financing for Public Transportation Projects*.

<sup>278</sup> "Value Capture," United States Department of Transportation, Federal Transit Administration, April 27, 2018, <https://www.transit.dot.gov/valuecapture>.

<sup>279</sup> Federal Transit Administration, "Value Capture."

of the regulatory environment. Table 14 lists key regulatory considerations when seeking to implement a value capture technique.

**Table 14. State and Local Value Capture Regulatory Barriers**

| Level of Government                           | Key Questions  |
|---|--|
| <b>Local Regulations, Planning and Zoning</b> | <ul style="list-style-type: none"> <li>• What is local taxation and spending authority?</li> <li>• If more than one local government entity is involved, do any regulations allow cooperative projects?</li> <li>• What are the zoning regulations?</li> </ul>   |
| <b>State Regulations</b>                      | <ul style="list-style-type: none"> <li>• Are P3 regulations in place?</li> <li>• Has specific legislation enabling this type of value capture been passed?</li> <li>• If relevant legislation has been passed, are there any legal weaknesses?</li> <li>• Does the city/county have State authority to raise funds in this manner?</li> <li>• Are there restrictions in the use of taxes or fees within the State that could affect this project?</li> <li>• Does the State government have jurisdiction over this project?</li> <li>• Does this project clearly comply with all State regulations?</li> </ul> |

## 12.1 Local Regulations, Planning, and Zoning

Zoning policies are important for many value capture techniques. In the case of joint development, zoning changes could provide potential developers and landowners with a financial benefit, which could then be leveraged in exchange for contributions by the developer to the transportation project. The zoning policies listed in Sidebar 10 can allow developers to build higher revenue-producing projects with an optimal mix of property types. Such changes can increase a developer's potential cash flow and can therefore make land more valuable when an agency offers to sell or lease, such as in an air rights-based joint development project. This will increase the value captured by the agency.

Special assessment districts (SADs), tax increment financing (TIF), transportation reinvestment zones (TRZs), business improvement districts (BIDs), land value taxes, and at-grade joint development projects are somewhat less dependent on all of these zoning regulations than air rights projects, but they can still benefit greatly. In general, if fewer restrictions are placed on what developers can build, demand for land increases, as does value. This in turn increases the revenue that an agency can capture from value capture techniques.

### **Sidebar 10. Examples of Local Zoning Policy to Maximize Returns from Value Capture**

- Replace density maximums with density minimums.
- Relax rules requiring land use segregation to encourage mixed-use developments.
- Eliminate or reduce minimum parking requirements.
- Replace setback lines with build-to lines.

As the Silver Line/Dulles Metrorail project near Washington, DC, describes (see Appendix Section VIII), the implementation of a SAD along that rail corridor was followed with new zoning regulations at certain portions that allowed for greater density, mixed uses, and reduced parking minimums.

As a caveat, in some areas where land is relatively inexpensive and there is a preference for space, density minimums may not be appropriate. Similarly in such areas, build-to lines and reduced parking availability may reduce the attractiveness of land to a developer. While Sidebar 10 is a general guide, it should be applied contextually and may not be appropriate for lower density suburban and rural areas. Furthermore, policymakers should be aware that even in environments where these policies are helpful from a standpoint of increasing land values, they may face pushback from homeowners and other interest groups opposed to dense land use.

Beyond the individual zoning recommendations, many municipalities seeking to benefit from value capture projects may benefit from systemic reform of zoning and local approval policies, particularly if they expect to implement multiple projects utilizing value capture techniques. Many jurisdictions are allowing greater deviations from density maximums, parking requirements, and other zoning rules for new development as “New Urbanist” principles become more mainstream throughout the United States.<sup>280</sup> These jurisdictions frequently create designated transportation districts in which traditional zoning codes are relaxed. Such laws can make the development of value capture projects more efficient, thereby increasing value capture transactions’ attractiveness (see Example 20).

#### **Example 20: Salt Lake City’s Transit Zoning Incentives**<sup>281 282 283 284</sup>

Since 2010, Salt Lake City, UT, has had a special zoning process, known as the Transit Station Area review, in place for developers applying for construction permits near mass transit stations. The initial review process scoring system fast-tracked developments that were able to exceed 100 points according to the city’s list of criteria. However, city officials and the Salt Lake City Planning Commission perceived that many developers were “gaming” the system and building developments that did not achieve the priorities that the scoring system was meant to incentivize, such as enhanced walkability, mixed land uses, or economic integration. As such, the city updated Transit Station Area guidelines throughout 2016 and 2017. Through this policy, Salt Lake City is seeking to promote the following:

- The construction of compact developments that exceed minimum density requirements.
- Vertical land usage.
- Provision of affordable housing.
- Provision of Americans with Disabilities Act-compliant housing.

<sup>280</sup> “CNU: Congress for the New Urbanism,” Congress for the New Urbanism, <https://www.cnu.org>.

<sup>281</sup> Isaac Riddle, “City Council Considers Changes to Zoning in Transit Areas,” Building Salt Lake, March 8, 2017, <https://www.buildingsaltlake.com/city-council-considers-changes-zoning-transit-areas/>.

<sup>282</sup> Salt Lake City, Utah, *Transit Station Area Development Guidelines*, June 2017, <http://www.slcdocs.com/Planning/Applications/TSADesignGuidelines.pdf>.

<sup>283</sup> Isaac Riddle, “Council Votes to Update TSA Zoning,” Building Salt Lake, June 16, 2016, <https://www.buildingsaltlake.com/council-votes-update-tsa-zoning/>.

<sup>284</sup> Isaac Riddle, “Revived Project Giving More of the Same on 400 South,” Building Salt Lake, May 17, 2016, <https://www.buildingsaltlake.com/revived-project-giving-more-of-the-same-on-400-south/>.



- Provision of key community amenities, such as community centers, daycare centers, clinics, fitness centers, and gardens.
- Conversion of surface parking to structured parking or another land use.

Since its most recent policy updates, the city has re-weighted how points are allocated among priorities in order to limit gaming. Projects scoring above 125 points on the above criteria are designated as “Tier 2” projects, while those scoring below 125 points are designated as “Tier 1” projects. Tier 2 projects are approved through a fast-track process, while Tier 1 projects require a public hearing and several other intermediate steps. Therefore, Tier 1 projects are less likely to be approved and, if approved, their approval process is expected to take 3–6 months longer than Tier 2 projects.

## 12.2 State Regulations

For municipalities to implement value capture techniques, State governments must typically authorize their use. State regulations, particularly as they relate to fiscal authority to raise funds and restrict spending, can be a critical roadblock in value capture projects. The legality of some value capture techniques has sometimes come into question, as has the authority of a municipality to direct funds raised through value capture to particular uses. Further, a variety of interest groups may oppose the use of certain value capture techniques for a variety of reasons, often focusing on local taxes and how other public needs are being funded.

As can be seen in Appendix Section III, the developer community pushed back against impact fees in Bozeman, MT, and initially won some district court challenges. While the city ultimately prevailed, victory came at a high cost, as Bozeman lost several million dollars in revenue due to moratoria, lawsuits, and legal battles. Another example of judicial issues for value capture projects occurred in Texas, where county transportation reinvestment zones (TRZs) were deemed unconstitutional. As a result, some jurisdictions canceled their plans, but Hays County came up with an alternative (see Appendix Section VII). In Atlanta, GA, a lawsuit threw the legality of the tax allocation district (TAD) used to fund the Atlanta BeltLine into question, so that the BeltLine had to hold off on collection of TIF revenues for the project. This issue was ultimately resolved by a very close referendum in which voters approved the collection of school district funds in Georgia TADs, after which legislators amended the State constitution to permit this (see Appendix Section I). For all value capture techniques, practitioners are advised to consult with legal counsel familiar with the case law in their State.

Authority for value capture techniques varies from State to State, with authorization sometimes possible at the local level and other times only at the State level.<sup>285</sup> Washington State does not permit TIF, for instance.<sup>286</sup> Sidebar 11 highlights changes to local fiscal authority that are often required for value capture techniques to be implemented. However, it is often difficult to implement these legislative changes, and it

<sup>285</sup> Page et al., *Guide to Value Capture Financing for Public Transportation Projects*.

<sup>286</sup> “Tax Increment Financing (TIF) in Washington,” Municipal Research and Services Center (MRSC) of Washington, May 23, 2018, <http://mrsc.org/Home/Explore-Topics/Economic-Development/Financing-Economic-Development/Tax-Increment-Financing.aspx>.

may require years of deliberation. Therefore, practitioners may consider it advisable to weigh the risk of legal challenges carefully while working to secure full State authority to minimize those risks.

#### **Sidebar 11. State Fiscal Regulations That May Maximize Value Capture Opportunities**

- Allow use of desired value capture techniques to raise funds or give localities more expansive fundraising authority.
- Allow localities to dedicate funds to specific transit/transportation purposes.
- Promote regulations requiring dedication of funds raised through desired value capture methods to purposes and areas associated with the project.

## **12.3 Federal Regulations**

Value capture initiatives that involve the National Highway System or utilize Federal funds must comply with Federal regulations. This includes not only Federal grant and trust fund monies, but also commonly used loan programs such as TIFIA and RRIF (see Example 21). For example, if a project includes Federal funding, it must undergo an environmental process mandated by the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.). Additionally, some activities are prohibited before a NEPA review takes place, such as ROW acquisition. Section 12.3.2 describes the requirements as they relate to federally funded highway projects.

#### **Example 21: Federal Government Involvement in Value Capture Projects**

In the Ohio Cap project (see Appendix Section IV), the FHWA funded the original construction of the expressway. This proposed alternative use of an I-670 highway easement required FHWA authorization. Federal regulations required that the city of Columbus obtain a fair market value for the air rights it was leasing to a private developer. This requirement proved challenging because even without paying rent, the developer would need to charge above-market rates for retailers to fund the project's construction cost. Also, parking was severely limited, which reduced the attractiveness of the investment to the developer. Columbus worked through this requirement by negotiating an alternative arrangement whereby it would receive 10 percent of the annual profits of the development in lieu of rent.

Capitol Crossing in Washington, DC, (Appendix Section V) also highlights the impact of Federal involvement on value capture projects. Capitol Crossing required the acquisition of I-395 air rights and, therefore, extensive Federal reviews. These reviews included an environmental assessment prepared in compliance with NEPA, the Council on Environmental Quality Regulations, and the FHWA Environmental Impact and Related Procedures. The project was also reviewed under Section 106 of the National Historic Preservation Act, and the environmental assessment included a Section 106 Effects Assessment.

### 12.3.1 Uniform Act and Property Management Requirements

Federal requirements related to real estate can be found in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR part 24), known as the Uniform Act, and property management requirements are found in 23 CFR 710. These requirements are triggered whenever there is Federal funding involved in a project, or if there is a goal of maintaining Federal eligibility. Several of the value capture mechanisms need to consider Federal requirements, including, but not limited to, joint development projects.

The Uniform Act will be triggered if there is Federal funding in any phase of a project, or if there will be Federal funding incorporated into a project at a later date. Not following the requirements of the Uniform Act can put Federal funding for the entire project in jeopardy. The Uniform Act established protections for anyone affected by federally funded programs or projects designed to benefit the public. Projects often require the acquisition of private property in order to be developed. This potentially results in the displacement of individuals from their homes, businesses, or farms. The Uniform Act ensures owners and tenants are treated fairly and equitably and receive relocation assistance if they are displaced.

The property management requirements found in 23 CFR 710 arise when there are real property interests alongside a roadway that must be acquired to construct or complete construction of a transportation project. This property is generally referred to as the ROW or real property interests. To minimize the disruptive impacts individuals may face when their property is being acquired, the 23 CFR 710 regulations govern the acquisition, management, and disposal of real property interests acquired on transportation programs or projects that receive Title 23 U.S.C. financial support from FHWA. Any value capture mechanism that uses or impacts the ROW will have to consider the requirements of 23 CFR 710.



Explore in Detail

#### [REAL ESTATE AND PUBLIC AGENCIES](#)

*Federal Highway Administration Office of Planning and Environment, March 2016.*

### 12.3.2 Environmental Review

Environmental review is integrated with the preliminary planning and design process described in Section 10.3, and both processes are closely intertwined. NEPA requires Federal agencies to assess the environmental effects of their proposed actions prior to making decisions. Transportation decision-making typically involves a triple bottom line to consider the social, environmental, and economic effects of

proposed projects during development to align them as closely as possible with the “best overall public interest.”<sup>287</sup> Joint development projects involving ROW use on interstates must comply with NEPA.

Based on the initial results of the environmental review process, an agency will be required to prepare an environmental assessment, at minimum, or a more detailed environmental impact statement if environmental effects are found to be significant. NEPA stipulates that the Federal Government must review the environmental impacts of proposed infrastructure projects that it has determined as “significant power” or “control of,” particularly those requiring significant Federal funding and/or financing. Additionally, many States have adopted environmental review processes that apply to local transportation projects, so a thorough environmental review is often required even when a project has little or no Federal Government funding attached.

The environmental review process can influence infrastructure projects regardless of whether they are funded and financed through value capture or more conventional funding and financing approaches. However, environmental review considerations may benefit certain types of value capture projects more than conventionally delivered projects. For example, the California Environmental Quality Act requires that municipalities assess the greenhouse gas emissions created by major new construction and develop a greenhouse gas mitigation plan. The State has refused to grant construction permits to projects with insufficient greenhouse gas accounting or mitigation planning. As joint development projects typically have lower greenhouse gas emissions due to their frequent orientation toward increased density, fewer cars, bicycle usage, and walkability, they are likely to perform better in environmental assessments.<sup>288</sup>



Explore in Detail

### [ENVIRONMENTAL ASSESSMENT](#)

*Federal Highway Administration Office of Planning and Environment, March 2016.*

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<sup>287</sup> Standards, 23 U.S.C. 109(h) (2018).

<sup>288</sup> Renne et al., “Transit-Oriented Development.”



## 13 IMPLEMENT FUNDING AND FINANCING PLAN

This chapter describes how agencies can implement a funding and financing plan involving value capture techniques. It begins with an assessment of the universe of financing options available to an agency—if it chooses to use financing. It then covers the projection of value capture revenues, including sensitivity analyses to account for potential deviations from expected revenues. This is followed by the implementation of a plan to collect and utilize the revenues, which seeks to ensure they are spent appropriately. Finally, it describes the risks associated with value capture revenues and how these risks can be mitigated through thorough analysis, oversight mechanisms, and innovative financial planning.

### 13.1 Financing Considerations

Deciding whether or not to use financing—and, if so, the type of financing to apply—is a key step in implementing value capture. The types of financing available for a jurisdiction may also inform the types of value capture that may be appropriate for a project, as described in Chapter 2. The predictability of value capture-related cash flows varies based on project specifics, including size and mode, as well as the type of value capture technique applied. Many value capture techniques—for example, those involving incremental growth—by definition start out with a low revenue base that increases over the course of several years. Even value capture techniques that are less reliant on growth are still subject to real estate and other economic cycles and suffer from the fact that they are dependent on the success of one project, as opposed to a portfolio of projects. While the business and economic case, as described in Chapter 10, should give lenders a clear picture of revenue risks, value capture projects are still more difficult to finance than projects secured by more predictable sources, such as property, gas, or sales taxes. Sidebar 12 details the challenges associated with obtaining investment-grade credit ratings used in obtaining bonds and sometimes loans for projects using value capture techniques.

Despite this difficulty, many jurisdictions have found ways to finance value capture projects. For a project funded by value capture revenues to access the municipal bond market successfully, value capture revenues should be relatively predictable or their risk of unpredictability should be reduced. Value capture revenue risk can be reduced in several ways. In some cases, a jurisdiction may back a project with its full faith and credit in order to issue municipal bonds or receive loans at a low interest rate. In other cases, agencies may combine value capture revenues with other, more stable revenues in order to issue debt. Finally, agencies seeking to finance value capture may also consider alternative forms of financing from organizations with higher risk tolerance than municipal bond investors, such as from State Infrastructure Banks (SIBs) or from Transportation Infrastructure Finance and Innovation Act (TIFIA) loans. Agencies may also choose not to use any form of financing, but instead, may use their value capture revenues as they are collected—also known as pay-as-you-go funding.

### Sidebar 12. The Role of Rating Agencies in Financing Value Capture Revenues

Rating agencies, including Standard and Poor's (S&P), Moody's, Fitch Ratings, and Kroll Bond Rating Agency, play a critical role in the financing of value capture-related projects, such as those funded with special assessment districts (SADs) or tax increment monies. As financial intermediaries, they carry out extensive evaluation of the project, its risks, its sponsors, and other issues. Their rating may determine the cost of the financing (i.e., interest rate and other terms) and the ultimate ability of the financing to reach appropriate investors.

For the latter, the rating agency's designation of whether it is "investment grade" is critical. An investment grade rating is one in which the rating is above the level of "BB" for S&P/Fitch Ratings or "Ba" for Moody's (the three major credit rating agencies). Such a rating or higher (i.e., BBB, A, AA, or AAA on the S&P ratings scale) assumes "relatively low to moderate credit risk."<sup>289</sup> Many retail bond funds primarily purchase bonds that are rated investment grade. Since these bond funds dominate the tax-exempt market, a bond without an investment grade rating will be purchased by fewer investors, if any. Therefore, most public agencies strive to issue investment grade bonds.

While banks and private placement providers, such as insurance companies, are usually not required to follow this investment grade/non-investment grade framework, they often view investments in a similar way.

If the rating agencies determine that financing involving the value capture-related revenues will not receive an investment grade rating, project sponsors may revise the financial plan to make it more creditworthy through guarantees or backstops using high investment grade sources, such as fuel or sales taxes.

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<sup>289</sup> Fitch Ratings, International Issuer and Credit Rating Scales, retrieved on 1/24/2016 from: [https://www.fitchratings.com/site/definitions?context=5&context\\_in=5&detail=507&detail\\_in=500](https://www.fitchratings.com/site/definitions?context=5&context_in=5&detail=507&detail_in=500).

## 13.2 Developing a Value Capture Funding and Financing Plan

Once a financial plan including value capture has been outlined, as described in Chapter 2, an agency should move forward with a more thorough financial feasibility analysis to determine if its plan is implementable, and whether it can expect value capture to provide the needed revenues.

For example, to assess the financial feasibility of a TIF, an agency should start with the collection of key data that affect value capture revenues, including the following:

- The number and value of properties in the district.
- The expected growth in the value of existing properties in the district.
- The expected value of new properties in the district over the life of the tax increment.
- The property tax rate in the district.
- The boundaries of the TIF district.
- The percentage of incremental tax revenue to be applied to the project.

Financial feasibility for other value capture techniques will require similar or other analyses. For example, SADs require an analysis of the property market, sales tax districts require an approach centered on taxable sales, and transportation impact fees are determined by the number of trips assumed by new development and the associated cost of providing new transportation infrastructure.

Through this analysis, an agency can determine the *expected* revenue from value capture. Once the expected revenue has been assessed, agencies should then perform a sensitivity analysis to determine how revenues may vary based on changes to key variables. A well-executed sensitivity analysis can help determine the risk associated with value capture revenues, and therefore the types of financing that may be appropriate for a particular value capture approach. For example, a value capture transaction that is expected to have steady and low-risk cash flows may be able to raise funds through the bond market or receive loans from private banks. On the other hand, a value capture transaction with higher risk cash flows may have to rely on financing from less risk-averse lenders such as SIBs, or it can access the bond market and private banks through a credit guarantee from a public agency, as described in Sidebar 12. After determining the appropriate financing approach, an agency should then designate an entity to collect and disperse the value capture proceeds for eligible uses, as discussed in Section 13.3.

## 13.3 Revenue Collection

The mechanics of collecting value capture monies need to be settled before a value capture technique is applied, especially when financing is needed. With some techniques, such as SADs or TIF districts, the municipality should generally establish specific “ring-fenced” or “firewalled” accounts into which value capture monies flow. Monies from these accounts are authorized only for use specific purposes related to the transportation project to ensure that benefits are received by those paying and the required payments will not be deemed a tax.

With other techniques, value capture revenues can be paid immediately up-front or over a designated period. Naming rights payments are usually subject to a special agreement with a private company, sometimes negotiated by an advertising agency. For each technique, the process of collecting and

depositing these monies is usually documented in legal agreements, drafted by legal counsel on behalf of the sponsoring municipality.

Managing the collection of value capture monies can be challenging because innovative ways of raising funds can create new challenges that jurisdictions may not anticipate. In El Paso, TX, it took more than 5 years after setting up the first TRZs for municipalities to address the issue that when larger properties within the zones were subdivided over time, the resulting smaller parcels were not automatically added to the TRZ funding register. Since then, they carefully monitor the parcel subdivision process to ensure that new properties are included.<sup>290</sup>

Ring-fencing (i.e., safeguarding) accounts is especially important in cases where value capture monies are used to repay bonds or loans. Lenders conduct extensive due diligence on how the funds are collected, deposited, and used to repay debt service. Additionally, ring-fencing the accounts reassures the public that funds will be spent as promised. Some of the success in realizing the U.S. Highway 63 project was due to the establishment of the Highway 63 Transportation Corporation, as discussed in Appendix Section IX. It may also be required for a jurisdiction to qualify for Federal grants.

## 13.4 Using the Revenue

Value capture monies are used for purposes as dictated by statutes that determine how and where they should be expended. Generally, monies should be able to be used for eligible costs that make up typical highway or transit projects as defined by Federal, State, and local statutes, including the following:

- Planning, design, engineering, land acquisition, construction, finance, and mobilization, which sometimes contribute as much as 30 percent of a project's capital costs.
- Project debt service.
- O&M costs.

In some cases, the value capture monies cannot directly fund the associated transportation project, but future extensions of the project and/or similar projects. This is common with impact fees, which are calculated to cover the expected future transportation required to serve a development type with a similar impact, such as a single-family home.

From the perspective of a local jurisdiction, another attraction of value capture monies is that they can count as a portion of a local entity's share in a project which receives Federal and/or State funding.

## 13.5 Overseeing the Revenue

Jurisdictions should also establish a governance framework for value capture implementation that provides the various entities involved in a project with clear lines of responsibility throughout the project

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<sup>290</sup> E-470 Public Highway Authority, *2016 Basic Financial Statements December 31, 2016 and 2015 (With Independent Auditors' Report Thereon)*, <https://www.e-470.com/Documents/AboutUs/2016%20E-470%20Public%20Highway%20Authority%20Audited%20Financial%20Statement%20Report.pdf>.



implementation process. Furthermore, agencies should engage stakeholders throughout the project life, not just during its planning stages.

Reporting and monitoring are also critical to ensure that value capture revenues are used appropriately and that projects are successfully meeting their goals. As such, an agency should create performance indicators and ensure clear responsibility for reporting the extent to which these performance indicators have been met and ensure that these results are published widely enough that the general public and key stakeholders are able to access them. As highlighted earlier in Example 14, the city of Chicago dealt with bad press over failing to properly publish how revenues from TIF were being used, so it established advisory boards to publish monitoring reports and better oversee them.

### 13.6 Example: Denver Union Station Funding and Financing

The Denver Union Station project illustrates how value capture funds can be combined with other funding in order to develop a funding and financing plan and mitigate the financial risks of value capture. Denver Union Station is a multimodal transportation project in Denver, CO, that includes an intermodal terminal, rail, and bus components, as well as street and public space improvements. The project was funded with traditional sources such as Federal grants and sales taxes. It also took advantage of innovative funding sources derived via value capture techniques, including SADs, TIF, and joint development. The project was also financed with TIFIA and RRIF loans. The breakdown of project sources and uses are described in Figure 9.

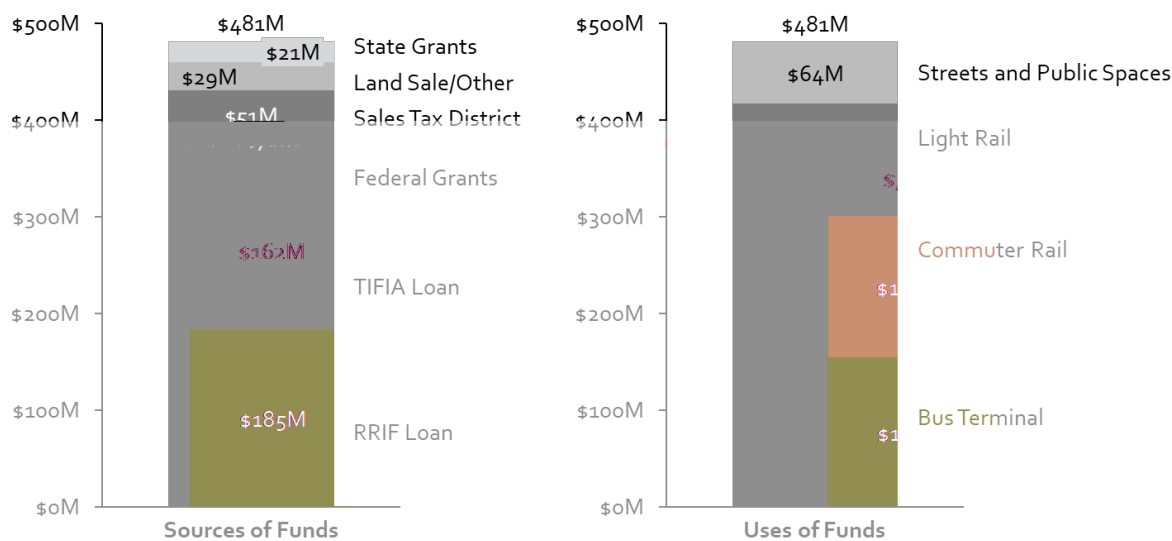


Figure 9. Denver Union Station—Sources and Uses of Funds<sup>291</sup>

<sup>291</sup> BATIC Institute: an AASHTO Center for Excellence, "Denver Union Station Area Redevelopment Project," Webinar Series: Innovations in Practice, Webinar 2, March 30, 2016.

## Sales Tax District

The Regional Transportation District, which provides bus and rail service to the Denver metro area, is funded through a sales tax of 0.4 cents that was approved in 2004; \$51 million of funds already saved from this account were allocated to the Denver Union Station project. Additional funds from this sales tax district were pledged to the RRIF and TIFIA loans over several years.

## TIFIA Loan and RRIF Loan<sup>292 293</sup>

The Denver Union Station project could not be financed with tax-exempt municipal bonds, in part because most of the funds available for repayment were from value capture sources, which were perceived as less certain because of real estate risk and because financing was sought at the height of the 2007–2009 recession. However, the project was able to secure a TIFIA loan and a RRIF loan from the Federal Government. These loans were backed by pledged sales tax revenues, a relatively secure source of revenue, as well as more speculative value capture funding from a TIF district and a special tax district.

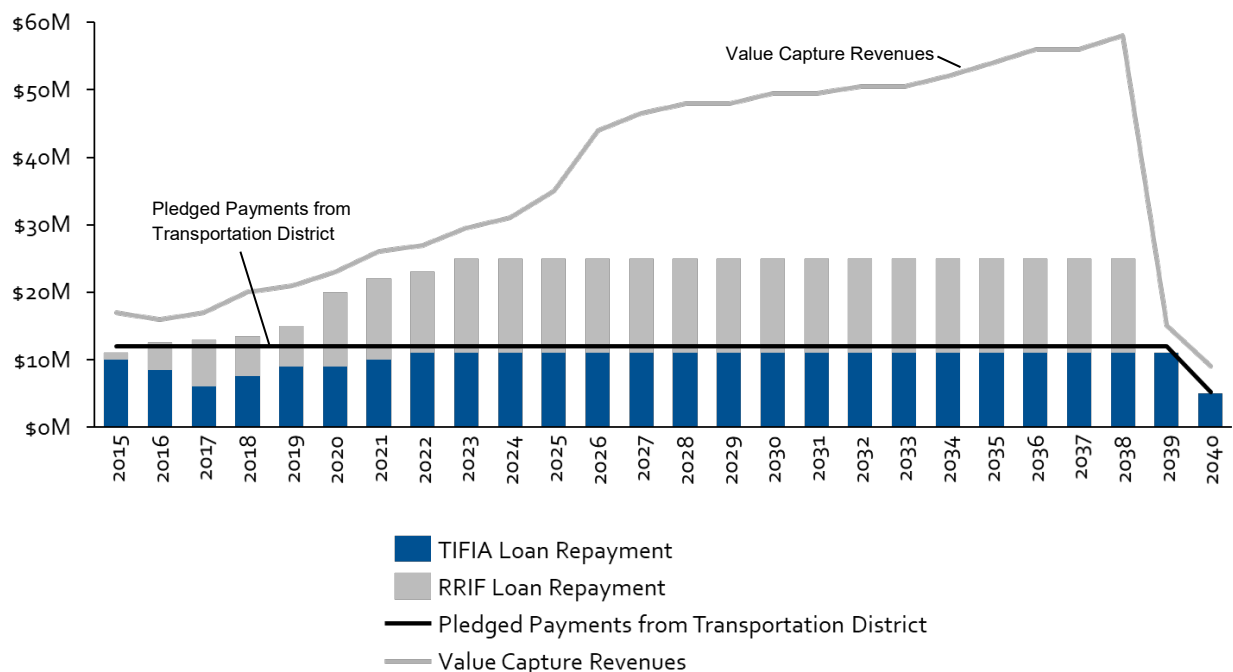
- Sales tax pledge: \$12 million annual payment from the Regional Transportation District, which is funded through a 0.4 cent sales tax in the Denver region.
- TIF district: tax increment over 30 years from the 44.5 acre Denver Downtown Development Authority planning area from incremental property and sales taxes in the area.
- SAD: a 2-percent property tax applied to all properties within the Denver Union Station special district, a 30-percent increase in the existing tax rate.

The TIFIA loan was structured as a senior loan and the RRIF loan as a subordinate loan. As seen in Figure 10, the project's pledged funding was significant enough to cover all TIFIA debt service payments in each project year, while the value capture revenues were projected to be many times higher than the debt service on the RRIF loan.

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<sup>292</sup> Page et al., *Guide to Value Capture Financing for Public Transportation Projects*, 55-62.

<sup>293</sup> Anastasia Khokhryakova, *Financing of the Denver Union Station*, Ballard Spahr LLP, 2013, <https://www.law.du.edu/documents/rmlui/conference/powerpoints/2013/KhokhryakovaADUSCaseStudyFinancing-of-The-Denver-Union-Station-DMWEST-9630502-1.pdf>.



**Figure 10. Denver Union Station Debt Service and Base Case Value Capture Revenues<sup>294</sup>**

Because most of the pledged sales tax revenues would be used to make TIFIA payments, the value capture revenues were primarily the repayment source for the RRIF loan. The project had to include additional security guarantees for the RRIF loan in the event the value capture funds fell short of projections. As such, the city of Denver provided a contingent commitment, which guaranteed that in the event of a shortfall in revenue available for RRIF debt service that required a draw on the RRIF reserve fund, the city and county of Denver could request an appropriation from the Denver City Council of up to \$8 million per year. This amount would cover approximately half of the debt service obligations. Figure 11 shows how this contingent commitment would work in the event that value capture revenues amounted to only 20 percent of their forecast. This contingent commitment, combined with a low likelihood of this extreme case, provided sufficient security for the provision of a RRIF loan.

<sup>294</sup> BATIC Institute, "Denver Union Station Area Redevelopment Project."

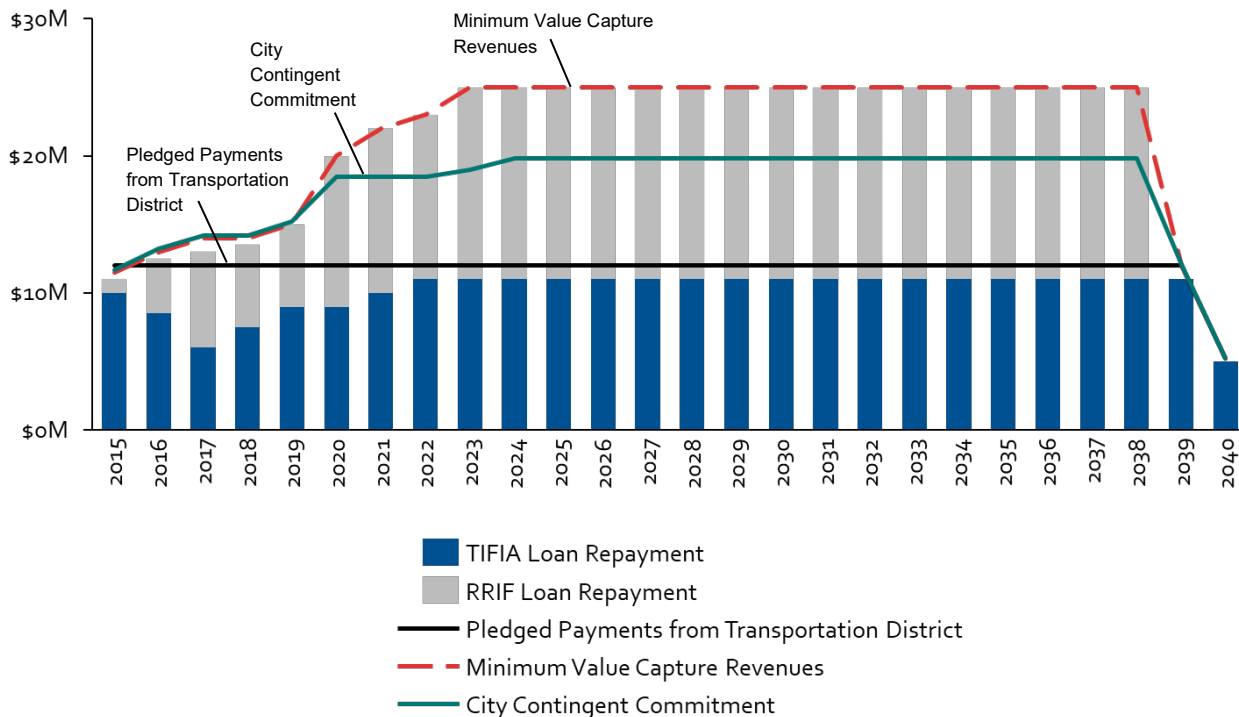


Figure 11. Denver Union Station Downside Case<sup>295</sup>

The Denver Union Station case illustrates the benefits and uncertainty of value capture, and how this uncertainty can be mitigated through a mix of stable funding sources, contingent funding guarantees, and use of innovative and flexible financing.

<sup>295</sup> BATIC Institute, "Denver Union Station Area Redevelopment Project."

## APPENDIX: CASE STUDIES

### Overview

The case studies in this Appendix highlight real-world examples of the value capture techniques discussed in this Manual. They cover the main details of each project, key regulatory characteristics, and funding and financing, as well as chief areas of collaboration and conflict between the various stakeholders involved. The cases take place in rural, suburban, and urban settings and involve many modes of transportation—including roadways, transit, and multimodal facilities. Table 15 highlights the value capture technique(s) used, mode(s) of transportation, and development type represented in each case study for user reference.

**Table 15. Value Capture Technique, Mode, and Development Type**

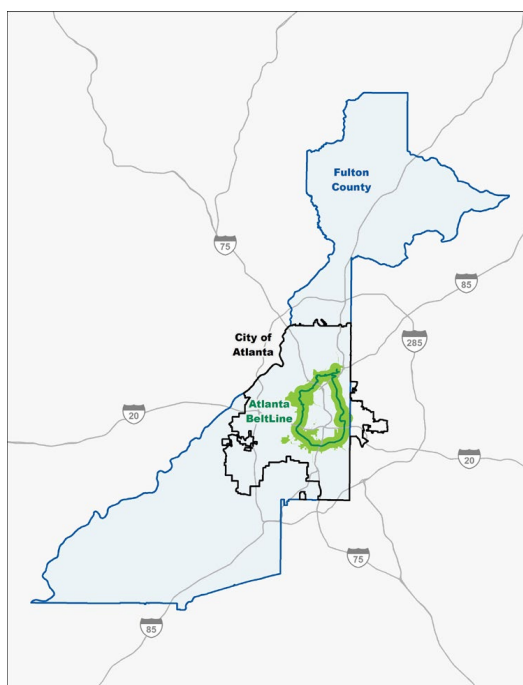
| Case   | Page Reference | Type(s) of Value Capture Technique                   | Mode(s) of Transportation    | Development Type |
|--|----------------|--|------------------------------|------------------|
| I. Atlanta BeltLine – Tax Allocation District                    | 141            | Tax Increment Financing                              | Highway, Transit, Multimodal | Urban            |
| II. Bel-Red Subarea, Bellevue, WA – Impact Fees                  | 151            | Impact Fees  | Multimodal, Road             | Suburban         |
| III. Bozeman, MT – Impact Fees                                   | 157            | Impact Fees  | Road, Highway, Multimodal    | Suburban, Rural  |
| IV. The Cap at Union Station – Joint Development                 | 164            | Above-Grade Joint Development                        | Highway                      | Urban            |
| V. Capitol Crossing – Air Rights Joint Development               | 169            | Above-Grade Joint Development                        | Road, Highway                | Urban            |
| VI. Colorado E-470 Toll Road and Vehicle Registration Fees       | 174            | Negotiated Exaction, Impact Fees, Sales Tax District | Highway                      | Suburban, Rural  |
| VII. Hays County, TX – Transportation Reinvestment Zones         | 180            | Tax Increment Financing                              | Highway                      | Suburban, Rural  |
| VIII. Silver Line/Dulles Metrorail – Special Assessment District | 186            | Special Assessment District                          | Transit                      | Urban, Suburban  |
| IX. U.S. 63 in Missouri – Sales Tax District                     | 196            | Sales Tax District                                   | Highway                      | Rural            |
| X. Virginia Route 28 – Special Tax District                      | 199            | Special Assessment District                          | Highway                      | Suburban, Rural  |

## I Atlanta BeltLine – Tax Allocation District

The Atlanta BeltLine project highlights the use of tax increment financing (TIF), known in Georgia as a tax allocation district (TAD), for a multimodal project that includes roadway improvements, bike lanes, pedestrian paths, and transit, in addition to the development of green space and other amenities.

### I.1 Project Overview

The Atlanta BeltLine is a planned 6,500-acre development that will loop around Downtown Atlanta. It is expected to spur an additional 15,000 acres in development beyond its immediate area. The project aims to connect 45 neighborhoods through 45 miles of streetscape alterations, 33 miles of trails, 22 miles of streetcars, and 2,000 acres of parks. It has been under construction since 2006, opening in phases in the years since. By 2030, all phases of the Atlanta BeltLine are expected to be complete. The Atlanta BeltLine loop is built on a historic 22-mile rail corridor, and the 15,000-acre planning area includes 22 percent of the city's population and 19 percent of its land area.<sup>296</sup>



**Figure 12. Map of Atlanta BeltLine and City of Atlanta<sup>297</sup>**

Source: Atlanta BeltLine, Inc.

<sup>296</sup> Owens, "The Atlanta BeltLine."

<sup>297</sup> *Atlanta BeltLine Redevelopment Plan*, report prepared for the Atlanta Development Authority, November 2005, <http://beltlineorg.wpengine.netdna-cdn.com/wp-content/uploads/2012/05/Atlanta-BeltLine-Redevelopment-Plan.pdf>.

The objectives of Atlanta BeltLine are as follows:

- Increase mobility within Atlanta.
- Increase the accessibility and connectivity of Atlanta communities.
- Increase the amount of greenspace within Atlanta.
- Provide an interactive space for the community.
- Spur development of underdeveloped areas.
- Construct new housing, with an emphasis on affordable housing.<sup>298</sup>

The Atlanta BeltLine is considered to be successfully achieving many of these goals, although it is falling behind on affordable housing construction and faces other equity challenges.<sup>299 300</sup> Several of the goals above seek to address many of the challenges of Atlanta's public spaces and neighborhoods. For example, prior to the BeltLine's construction, the surrounding neighborhoods were distressed. From the perspective of greenspace, in the early 2000s, Atlanta was ranked 50<sup>th</sup> out of the Nation's 55 most populous cities in terms of parkland as a percentage of city area.

The Atlanta BeltLine concept was first conceived in 1999 as Georgia Tech graduate student Ryan Gravel's master's thesis. The idea quickly took off after gaining the interest of several citizen groups and Atlanta City Council President Cathy Woolard.<sup>301</sup> By 2005, the Atlanta BeltLine had moved from concept to construction, after receiving the approval of the city of Atlanta and several other government entities, as well as the backing of several private and nonprofit organizations.

### Atlanta BeltLine Stakeholders

The creation and continued progress of Atlanta BeltLine is the result of coordination between several governmental organizations, non-profit organizations, and local businesses. Several organizations were already in existence prior to the planning of the BeltLine, while others were created for the purpose of carrying out the project. Table 16 and Table 17 briefly describe the roles of key parties involved in the development of the project.

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<sup>298</sup> Atlanta BeltLine, Inc., *Atlanta BeltLine 2030 Strategic Implementation Plan: Final Report*, December 2013,

[http://issuu.com/atlantabeltline/docs/beltline\\_implementation\\_plan\\_web](http://issuu.com/atlantabeltline/docs/beltline_implementation_plan_web).

<sup>299</sup> Nedra Rhone, "Can the Atlanta BeltLine Improve Its Image?" *The Atlanta Journal-Constitution*, April 30, 2018.

<sup>300</sup> "Affordable Housing," Atlanta BeltLine, Inc., 2019, <https://beltline.org/category/programs/affordable-housing-programs/>.

<sup>301</sup> "Project History," Atlanta BeltLine, Inc., 2018, <https://beltline.org/progress/progress/project-history/>.

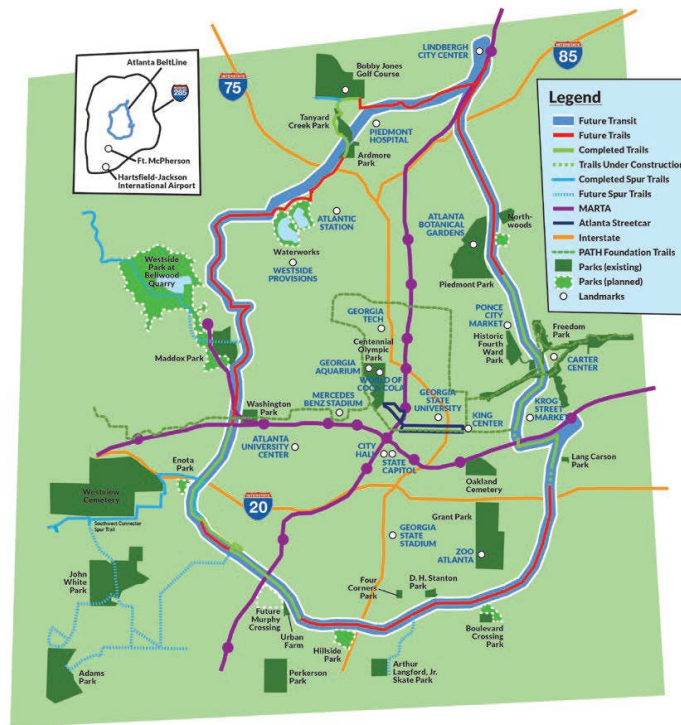
**Table 16. Public and Quasi-Public Organizations Involved in the Development of the Atlanta BeltLine**

| Stakeholder   | Description of Role   |
|---|---|
| <b>City of Atlanta</b>                                      | The city of Atlanta, which is the future owner of all Atlanta BeltLine investments, participates in the Atlanta BeltLine TAD. It also appoints members to the Atlanta BeltLine, Inc. (ABI) and Atlanta BeltLine Affordable Housing Advisory boards.   |
| <b>Fulton County</b>  | Fulton County participates in the Atlanta BeltLine TAD. It makes appointments to the ABI board of directors and the Atlanta BeltLine Affordable Housing Advisory Board.   |
| <b>Atlanta Public Schools</b>                               | Atlanta Public Schools is an Atlanta BeltLine TAD participant and appoints members to the ABI Board of Directors and the Atlanta BeltLine Affordable Housing Advisory Board.  |
| <b>Invest Atlanta</b>                                       | Invest Atlanta is the city's economic development agency. It is responsible for the creation and management of all Atlanta-based TADs. It is playing an active role in the affordable housing components of the project.  |
| <b>Atlanta BeltLine, Inc. (ABI)</b>                         | ABI was formed by Invest Atlanta as a nonprofit organization to manage the Atlanta BeltLine program. The organization defines the program, seeks grants and other funding, facilitates community engagement, manages vendors, tracks progress and reports to government entities.   |
| <b>Metropolitan Atlanta Rapid Transit Authority (MARTA)</b> | MARTA is the Atlanta transit agency that will develop intermodal linkages to the Atlanta BeltLine and be responsible for the development of the Atlanta BeltLine's transit components.  |
| <b>Georgia Department of Transportation (GDOT)</b>          | GDOT owns the ROW on the Atlanta BeltLine corridor and coordinates with ABI to manage the Atlanta BeltLine's ROW. GDOT also administers the Statewide Transportation Improvement Program, part of which funds the Atlanta BeltLine's design, ROW acquisition, and construction.   |
| <b>Atlanta Regional Commission</b>                          | The Atlanta Regional Commission is a planning and intergovernmental coordination agency that has supported ABI's planning and assisted in securing State funds.   |
| <b>Tax Allocation District Advisory Committee (TADAC)</b>   | The Atlanta BeltLine TADAC was established by the city of Atlanta to make recommendations to ABI, Invest Atlanta, and the city on issuance, allocation, and distribution of TAD bond proceeds. The TADAC also measures the Atlanta BeltLine's impact and progress on implementation of its redevelopment plan.                    |
| <b>BeltLine Affordable Housing Advisory Board</b>           | The BeltLine Affordable Housing Advisory Board advises on issues related to affordable housing, with members from Fulton County, the city of Atlanta, Atlanta Public Schools, community development corporations, and the real estate community.  |
| <b>Department of City Planning</b>                          | The Atlanta Department of City Planning is responsible for the Atlanta BeltLine's planning area zoning. It separated the 16,000 acres within one-half mile of the rail corridor into 10 subareas for land use master plans, which encourage land uses that facilitate transit, parks, denser development, walking, and bicycling. |



**Table 17. Private Organizations Involved in the Development of the Atlanta BeltLine**

| Stakeholder                  | Description of Role  |
|------------------------------|--|
| Atlanta BeltLine Partnership | The Atlanta BeltLine Partnership is funded by the private sector. It was created to raise capital, awareness, and support for the project. The Atlanta BeltLine Partnership hosts guided tours, “adopt-a” programs, speakers, and other programming. |
| PATH Foundation              | The PATH Foundation was created to enhance and preserve Georgia greenways. The organization works with ABI and the Atlanta BeltLine Partnership to develop the Atlanta BeltLine trail network, including coordinating the use of private funding.    |
| Trust for Public Land        | The Trust for Public Land helped evaluate the Atlanta BeltLine TAD’s financial feasibility and purchased the parcels on which Atlanta BeltLine parks will be developed.  |
| Trees Atlanta                | Trees Atlanta is working with ABI to create an arboretum, plant trees, and remove certain species from the Atlanta BeltLine area.  |



**Figure 13. Atlanta BeltLine Parks and Transportation Map**

Source: Atlanta BeltLine, Inc.

## BeltLine Progress

Since its inception, the Atlanta BeltLine has visibly progressed, which has helped to strengthen its image and the commitment of policy makers and stakeholders to the project. As of mid-2019, \$500 million in capital improvements had been made, mostly related to parks and trails. According to the ABI, as of the end of 2018, \$559 million in capital improvements had been invested in the Atlanta BeltLine project, spurring \$4.6 billion in private redevelopment (an 8.5-to-1 return on investment). Figure 14 and Figure 15 highlight the dramatic transitions in the Atlanta BeltLine planning area.

*Before Atlanta BeltLine Construction*



*After Atlanta BeltLine Construction*



**Figure 14. Atlanta BeltLine Eastside Trail**

*Source: Christopher T. Martin (left) and The Sintoses (right)  
Reproduced with permission from Atlanta BeltLine, Inc.*

*Before Atlanta BeltLine Construction*



*After Atlanta BeltLine Construction*



**Figure 15. Atlanta BeltLine Fourth Ward Park**

*Source: Christopher T. Martin (left) and The Sintoses (right)  
Reproduced with permission from Atlanta BeltLine, Inc.*

## Roadway Improvements

Some of the 45 miles of planned streetscape work will be completed as a component of transit construction and some, such as the Ponce de Leon improvements, are the result of coordination between multiple agencies and funding sources.

The Atlanta BeltLine, Inc. (ABI) 2005 Redevelopment Plan set out a vision for roadway improvements as a tool for increasing economic redevelopment in the Atlanta BeltLine's neighborhoods. ABI anticipates that some streetscape projects will be implemented as part of private developments and as part of transit implementation.<sup>302</sup> Additional streetscape improvements beyond those identified in the Redevelopment Plan will continue to be implemented as part of other Atlanta BeltLine projects.<sup>303</sup>

In addition to streetscape improvements, a number of roadway projects to mitigate traffic impacts of redevelopment were identified as part of the Redevelopment Plan. These projects were further defined and additional projects were identified through the Subarea Master Planning process; many are located outside the Atlanta BeltLine TAD.<sup>304</sup>

### 1.2 Regulatory Considerations

The Atlanta City Council approved the Atlanta BeltLine's 25-year financial plan in 2005, following a 12-3 vote, establishing the Atlanta BeltLine TAD. Shortly after, Atlanta Public Schools and the Fulton County Board of Commissioners voted to enter into an intergovernmental agreement with the city to share future tax revenues with the Atlanta BeltLine through the TAD.<sup>305</sup> Soon after its formation, the TAD faced a legal challenge from local attorney John Woodham,<sup>306</sup> who argued that participation by Atlanta Public Schools in the TAD violated the "Educational Purpose Clause" in the Georgia State Constitution, as it diverted funds that could be used for education to non-educational purposes.<sup>307</sup> The case pushed for the removal of Atlanta Public Schools from the agreement, a move that, if successful, would dramatically decrease the Atlanta BeltLine's primary funding source, reducing TAD revenues by 45 percent.<sup>308</sup>

In 2008, due to the ABI lawsuit and the broader risk to other TADs in Georgia, the State held a referendum to change the constitution to allow TADs to use educational purpose revenue. The referendum narrowly passed with 51 percent of the vote, after which Georgia passed House bill 63, also

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<sup>302</sup> Atlanta BeltLine, Inc., *Atlanta BeltLine 2030 Strategic Implementation Plan: Final Report*.

<sup>303</sup> Atlanta BeltLine, Inc., *Atlanta BeltLine 2030 Strategic Implementation Plan: Final Report*.

<sup>304</sup> Atlanta BeltLine, Inc., *Atlanta BeltLine 2030 Strategic Implementation Plan: Final Report*.

<sup>305</sup> "How the Atlanta BeltLine is Funded," Atlanta BeltLine, Inc., 2018, <https://beltline.org/about/the-atlanta-beltline-project/funding/>.

<sup>306</sup> *Woodham v. City of Atlanta*, 657 S.E.2d (Ga. 2008).

<sup>307</sup> Alyson M. Harter, "Update on Tax Allocation Districts (TADs) and the Beltline Project," Williams Mullen, October 1, 2008, <https://www.williamsmullen.com/news/update-tax-allocation-districts-tads-and-beltline-project>.

<sup>308</sup> Dan McRae, "Quick Takes: TADs—What to Do After the BeltLine Case," Seyforth Shaw Attorneys LLP, February 21, 2008, [https://www.danmcrae.com/quicktakes/qt\\_08-feb21.pdf](https://www.danmcrae.com/quicktakes/qt_08-feb21.pdf).

known as the “Redevelopment Powers Law.” The Redevelopment Powers Law explicitly allows TADs to use school district revenue to fund redevelopment projects.<sup>309</sup>

As inactive rail corridor, the Atlanta BeltLine has utilized the “Rails to Trails” program to mitigate some of the real estate title risks commonly associated with purchasing rail corridor and converting it to a trail and transit system.<sup>310</sup>

### *1.3 Market Considerations*

The Atlanta BeltLine revenue projections were based on a financial feasibility study estimating future growth in the value of properties in the 6,500-acre redevelopment area of the Atlanta BeltLine that comprises the TAD. Initial projections were completed in 2006 and based on historic property value increases. The TAD boundary was drawn in order to include key Atlanta BeltLine-driven redevelopment opportunities, avoid single-family neighborhoods, connect trails to nearby parks, and include major roadway corridors that would be improved in relation to the project.<sup>311</sup>

The ABI issued tax allocation district bonds based on the robust growth projections included in its initial feasibility study. However, the 2007–2009 recession led to a major slowdown in the growth of property values in the Atlanta BeltLine TAD area, such that these projections required a downward revision (see Figure 18).

### *1.4 Funding Plan*

#### **Initial Funding Plan**

The growth in property tax revenues within the 6,500 acres that comprise the Atlanta BeltLine TAD is to be directed to capital expenditures for parks, trails, and transit.<sup>312</sup> These revenues can be spent as they are collected or used to secure financing.

Property values were estimated to rise by \$20 billion between 2006 and 2030, and of this growth, the TAD was originally projected to collect \$3 billion in revenue for the BeltLine, or 66 percent of the project’s \$4.4 billion in required investments. The balance was expected to come from Federal, State, local, and private philanthropic funds.

Funding for the Atlanta BeltLine is expected to be used for a number of purposes, based on the relative flexibility of the TAD guidelines. The uses of the \$4.4 billion are illustrated in Figure 16 and Figure 17. Transit investments account for about half of the costs, with spending on parks, streetscapes, affordable housing, and trails taking significant shares.

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<sup>309</sup> Molly Bloom, “After Years of Conflict, Mayor Kasim Reed and APS Reach BeltLine Deal,” *The Atlanta Journal-Constitution*, January 29, 2016, <https://www.ajc.com/news/local-govt-politics/after-years-conflict-mayor-kasim-reed-and-aps-reach-beltline-deal/Wm6CxnISwUmsVu78pcNsaK/>.

<sup>310</sup> “Rails to Trails,” Surface Transportation Board, Public Information Resources, [https://www.stb.gov/stb/public/resources\\_railstrails.html](https://www.stb.gov/stb/public/resources_railstrails.html).

<sup>311</sup> City of Atlanta, Georgia, *The BeltLine*, <http://www.atlantaga.gov/Home/ShowDocument?id=1628>.

<sup>312</sup> “We’re Developing a New Future for Atlanta!” Atlanta BeltLine, Inc., 2018, <https://beltline.org/about/resources/for-developers/>.

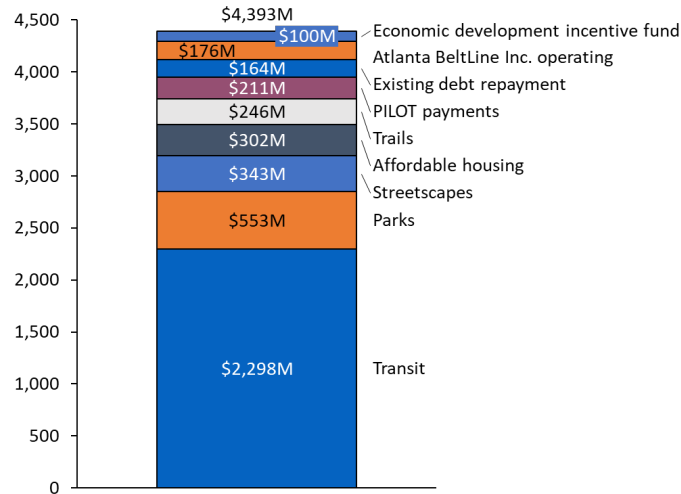


Figure 16. Atlanta BeltLine Uses of Funds<sup>313</sup>

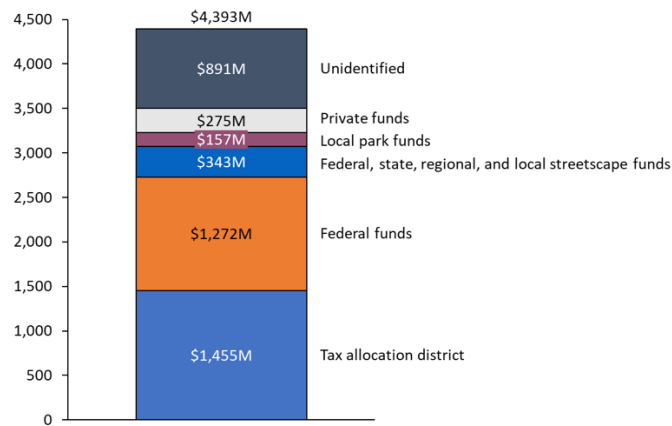


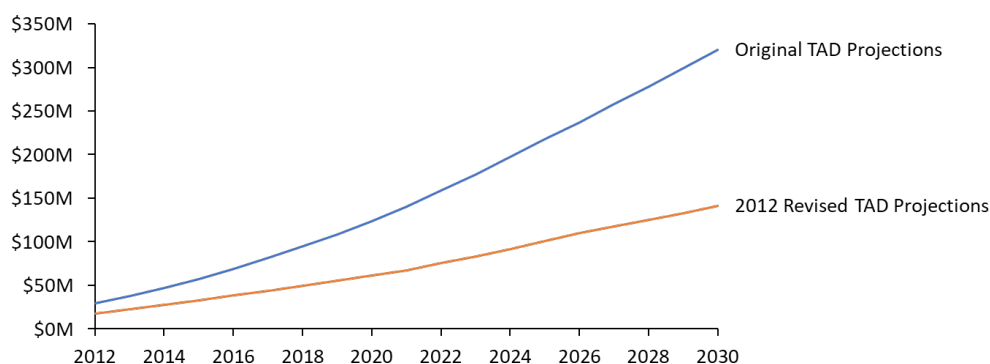
Figure 17. Atlanta BeltLine Sources of Funds (2012 Projections)<sup>314</sup>

<sup>313</sup> Atlanta BeltLine, Inc., *Atlanta BeltLine 2030 Strategic Implementation Plan: Final Report*.

<sup>314</sup> Atlanta BeltLine, Inc., *Atlanta BeltLine 2030 Strategic Implementation Plan: Final Report*.

## Shifts in Funding Plan

As a consequence of the 2007–2009 recession and a lawsuit that paused Atlanta Public Schools’ revenue contribution, funding from the TAD was halved, as illustrated in Figure 18.



**Figure 18. Projected Annual TAD Revenue 2012–2030<sup>315</sup>**

Despite this decline in revenue, the Atlanta BeltLine’s initial program and projected costs have remained at \$4.4 billion, requiring it to seek other funding sources and delay some projects. As of mid-2019, an estimated \$900 million in funding had yet to be identified.

Furthermore, the ABI’s revenue shortfall resulted in amendments to the agreement between it and the Atlanta Public Schools—two in 2009 and one in 2016. The process that led to these amendments is described in Section I.5.

### *I.5 Coordination and Partnership*

As TAD legislation was passed in 2009 after years of legal wrangling, the 2007–2009 recession was at its worst and the ABI struggled to pay its payments in lieu of taxes (PILOTs) to Atlanta Public Schools and make the investments to complete its master plan. In 2012, the city of Atlanta stepped in on behalf of ABI to renegotiate the PILOT payment with Atlanta Public Schools, which was eventually paid several months late.

In December 2013, the city communicated that the Atlanta BeltLine TAD would be unable to make the next payment. Atlanta Public Schools was unwilling to accept a lower PILOT payment as it was struggling with its own financial problems. The city and Atlanta Public Schools held meetings throughout 2014 and 2015 to resolve the issue, and in early 2016, they signed a third amendment. The city agreed to become current on payments through 2015, use funds from the sale of a civic center to make additional payments,

<sup>315</sup> Atlanta BeltLine, Inc., “How the Atlanta BeltLine is Funded.”

and transfer property owned by the Atlanta Housing Authority to the school system for educational purposes. In turn, the PILOT payments to Atlanta Public Schools were lowered to \$100.8 million from \$174.9 million, a 42-percent reduction.<sup>316</sup>

### 1.6 Takeaways

- **Coalitions can create a self-sustaining cycle to overcome inertia.** It took the Atlanta BeltLine 5 years to go from thesis to construction. The rapid push for this project occurred in large part because of support from a wide range of interest groups who lobbied politicians and key private sector stakeholders.
- **Execution bolsters a project's resilience.** Part of the reason the transaction survived the 2007–2009 recession through difficult negotiations was that the Atlanta BeltLine was well underway and its benefits were evident to all stakeholders. This shows the value of frontloading key visible developments.
- **When things go wrong, parties should be open to creative solutions.** The Atlanta BeltLine renegotiations were heated, yet all parties displayed creativity and flexibility in developing a new agreement that went beyond the scope of the original agreement.

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<sup>316</sup> "City, APS Finally Settle 3-Year Feud Over Beltline TAD Payments," *Buckhead View*, January 31, 2016.



## II Bel-Red Subarea of Bellevue, Washington – Impact Fees

The Bellevue-Redmond (Bel-Red) corridor project highlights how impact fees may be used to finance improvements and drive the development of a multimodal transportation district that includes arterial streets, bicycle paths, pedestrian paths, and significant roadway enhancements.

### II.1 Project Overview

The corridor connecting Redmond, Bellevue, and Seattle in Washington State is one of the fastest-growing areas of the Pacific Northwest. With the Central Puget Sound Regional Transit Authority, known as Sound Transit, expanding its light rail network across metro Seattle, the city of Bellevue saw an opportunity to promote transit-oriented development around the future light rail line and generate maximum benefit from it.

Bellevue focused its planning efforts on the Bel-Red subarea, a 900-acre, strategically located neighborhood. Bel-Red links three key parts of the region: Downtown Bellevue, a dynamic, high-rise employment and residential center; Wilburton, a major, multiple-institution medical district; and Redmond's Overlake area, a prominent, high-technology employment center that is home to Microsoft's headquarters. The area is also conveniently located near the I-405 and SR-520 highways.

The original alignment for Sound Transit's East Link Project followed SR-520 before turning into downtown Bellevue. To maximize transit-oriented development, the city proposed an alternative alignment that would bring the line into a light industrial district several blocks inside the highway. Figure 19 shows the ultimate alignment of the light rail line.



**Figure 19. Alignment of Light Rail through Bellevue**

Source: Sound Transit

The Bel-Red subarea had long been the location of light industrial uses, including warehouses and auto repair shops. Bellevue saw the opportunity to transform the 900-acre site into mixed-use, transit-oriented



neighborhoods while improving the environment and creating thousands of new jobs and housing units. The vision, defined by the city of Bellevue's Citizen Steering Committee, comprised the following six goals:

- Creation of 10,000 new jobs and 5,000 new housing units.
- Construction of transit-oriented developments around light rail stations.
- Restoration of streams and ecological functions.
- Improvement of local and regional transportation connections.
- Creation of new parks, trails, bike paths, and other amenities.
- Generation of significant economic development.

The redevelopment was estimated to cost \$200 million, of which a significant portion was expected to come from zoning incentives and citywide impact fees. Other sources of financing were expected to be from TIFIA loans and State grants. An aerial view of the light industrial area, pre-development, is shown in Figure 20. Upon completion, the area will be home to three of Bellevue's six light rail stations:

- Wilburton Station
- Spring District/120th Station
- Bel-Red/130th Station



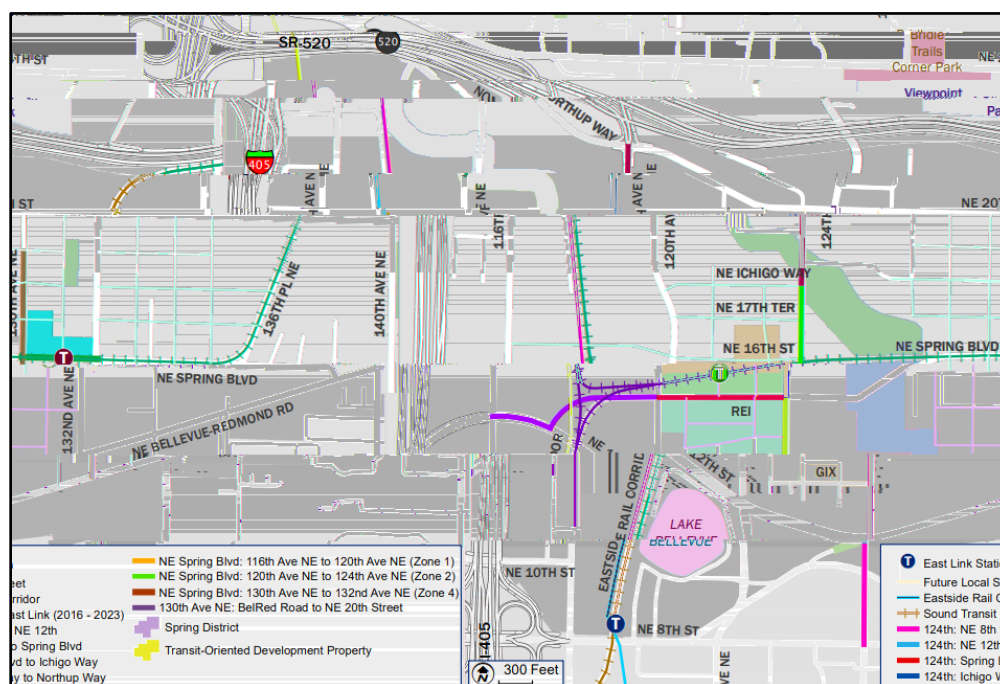
**Figure 20. Aerial View of Bel-Red Subarea**

*Source: City of Bellevue*

The location of the three stations, as well as a schematic of the overall land use plan for the Bel-Red subarea, is shown in Figure 21. The Bel-Red subarea is bound by SR-520 to the north, I-405 to the west, Bel-Red Road to the south, and 148th Avenue to the east.

To ensure that the East Link Project will support Bellevue's smart growth goals, each station is put through Sound Transit's station area planning process, in addition to an overall master plan.

The city's overall master plan comprises a variety of multimodal transportation investments designed to leverage the East Link Extension to the greatest extent possible, including arterial streets, bicycle facilities, pedestrian facilities, parks, and stream enhancements. Roadway improvements include new connections, realignments, widenings, turn pockets, new and upgraded signals, bike lanes, sidewalks, landscaping, drainage, and street lighting.



**Figure 21. Detailed Plan of Bel-Red Subarea**

*Source: City of Bellevue*

## II.2 Regulatory Considerations

The city had to manage several regulatory issues in executing its plan for the project.

### Rezoning of the Subarea

The most obvious need was for the city to rezone the subarea from light industrial to accommodate mixed-use commercial development. The rezoning was relatively uncontroversial among property owners, because there was no existing residential space in the area and the rezoning greatly increased property values.

### Washington's Growth Management Act

The Washington State Growth Management Act is a State law that requires municipalities to manage growth by designating urban growth areas, preparing comprehensive plans and implementing them

through capital investments and development regulations. This act provided guiding principles in the planning process.

### **Tax Increment Financing**

In Washington, State property tax revenues cannot be diverted for local economic development as is the case with traditional tax increment financing (TIF). Traditional TIF was ruled unconstitutional by the Washington State Supreme Court because it diverts State property tax revenue from schools.

Washington's "budget-based" property tax system makes it impossible for a local government to capture property value increases that are driven by public investments. Property taxes are levied in gross amounts, based on budgetary needs and subject to a statutory cap. Because of statutory caps on budget amounts, increases in assessed values are not captured by municipalities under existing law.

The lack of TIF meant there were few ways for the city to capture the increased property values in the new zone.

### *II.3 Market Considerations*

The primary market consideration was real estate market risk. However, the strategic location of the Bel-Red Street Network project proved highly desirable to new businesses and developers well in advance of project completion. REI, the global sporting goods retailer, is constructing its global headquarters in the district. Also under construction is a 100,000-square-foot Global Innovation Exchange, a graduate academic institute focused on technology innovation created by a partnership between the University of Washington and Tsinghua University of Beijing and supported by Microsoft. In total, at least 3.3 million square feet of retail and residential space is under development in the subarea.

### *II.4 Funding Plan*

#### **Investment Strategy**

To develop the street network, the city budgeted \$200 million out of an overall \$500 million citywide budget for transportation improvements. The project's investment strategy will include city revenues supported by developer contributions from impact fees, right-of-way contributions, and zoning incentives, as well as transit agency revenue and Federal and State grants. A developer zoning incentive system will help fund open space and stream restoration and contribute to affordable housing, so that development will partially fund its own needs.

#### **Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan**

To fund the street network improvements, the city applied for and was granted a \$100 million TIFIA direct loan. The TIFIA loan is secured by a limited tax general obligation pledge from the city of Bellevue. The TIFIA loan agreement was executed on June 9, 2017, and is expected to mature in 2056. The loan has an interest rate of 2.86 percent and a term of 35 years after substantial completion to finance the completion of the street network improvements.

## Development Impact Fees

Developers pay impact fees on new developments to help mitigate traffic impacts and to provide some of the funding for the city's transportation infrastructure. Both the Bellevue City Code and the State Growth Management Act discussed previously authorize these fees.

Bellevue's transportation impact fees vary for different types of land uses. Residential fees and commercial fees, for example, are not the same because of the differences in the amount of traffic generated by each type of development.

## Incremental Revenue Analysis

To help justify its street network improvements, Bellevue calculated the expected incremental revenue that would be generated through densification and higher value development in the Bel-Red subarea. By showing evidence that the State stood to gain significant incremental revenue from the Bel-Red developments, Bellevue was able to build a strong case in its requests for State grant money to fund street network improvements.

**Table 18. Bel-Red Subarea Impact Fee Revenue Projection**

| Stakeholder                                 | City            | County          | State            | Other Districts | Total            |
|---|-----------------|-----------------|------------------|-----------------|------------------|
| Property Taxes                              | \$3,500         | \$3,000         | \$8,700          | \$20,700        | \$36,300         |
| Sales Tax on Construction                   | \$3,300         | \$4,500         | \$25,200         | \$3,500         | \$36,500         |
| Ongoing Sales Tax                           | \$12,500        | \$16,900        | \$95,300         | \$13,200        | \$137,900        |
| Business and Occupation Tax on Construction | N/A             | N/A             | \$7,000          | N/A             | \$7,000          |
| Ongoing Business and Occupation Tax         | N/A             | N/A             | \$16,800         | N/A             | \$16,800         |
| Utility Taxes                               | \$1,500         | N/A             | \$700            | N/A             | \$2,200          |
| <b>Total Incremental Revenues</b>           | <b>\$20,800</b> | <b>\$24,400</b> | <b>\$153,700</b> | <b>\$37,400</b> | <b>\$236,700</b> |

## *II.5 Coordination and Partnership*

### **City–Sound Transit**

To undertake the project, the city needed to convince Sound Transit to relocate the original planned route parallel to State Route 520 south into the subarea. This would involve extra cost to Sound Transit since it would need to acquire land in the subarea, unlike along State Route 520. Ultimately, Sound Transit agreed on the basis that relocating the line would improve ridership numbers, which would in turn help Sound Transit's revenue and business case for the East Link Extension over the longer term.

### **City–Business**

The city coordinated with businesses throughout the master planning process to ensure the transportation network would be fit for purpose. It is funding part of the infrastructure improvements through impact fees on development. The city needed to achieve buy-in from potential developers to set and levy the fees. Those fees are levied on a citywide basis and not unique to the subarea, however.

### **City–Community**

The city set up a Community Steering Group to guide the planning and set overarching goals.

## *II.6 Takeaways*

- **Get involved early.** Bellevue benefited by intervening early in the planning process with Sound Transit to advocate for a route that created the best opportunity for transit-oriented development.
- **The private sector will pay for improvements that benefit business in the long run.** The project shows successful use of citywide impact fees and partnerships with developers to co-invest in street network investments.
- **Municipalities should work around State shortcomings.** Bellevue did not have a major opportunity to take advantage of TIF due to State law that prohibits TIF and statutory caps on property tax levels. Rather than simply lobbying the State, Bellevue found alternative ways to raise funds through value capture and developed projections that bolstered its case for receiving a State grant.

### III Bozeman, Montana – Impact Fees

Bozeman, MT’s impact fees program highlights how impact fees can be used to finance a significant share of capital investments in roads, bike lanes, and pedestrian facilities, as well as other classes of infrastructure.

#### III.1 Project Overview

The city of Bozeman, MT, in Gallatin County, is Montana’s third-most populous city, with a population of about 45,000. It is well situated, given its relative closeness to two national tourist attractions, Big Sky Resort and Yellowstone National Park, and it is home to Montana State University and its 16,000 students. Bozeman has grown rapidly over the last two decades, and it is consistently ranked as one of the fastest-growing micropolitan cities in the United States as well as one of the strongest economies of its size.

Bozeman’s population growth accelerated in the 1990s. After increasing by only 5 percent between 1980 and 1990, it grew by 20 percent during that decade. Its population also grew by 32 percent in the 2000s, with its housing stock increasing by over 50 percent during that time. Bozeman is projected to grow by another 33 percent in the 2010s. The city’s rapid growth drove it to annex several thousand acres of land, and it currently covers 12,900 acres—80 percent more than in 1996.<sup>317</sup> Details of Bozeman’s population growth can be found in Table 19.

**Table 19. Bozeman Population, 1990–2020<sup>318</sup>**

| Year       | 1990   | 1995   | 2000   | 2005   | 2010   | 2015   | 2020<br>(Projected) |
|------------|--------|--------|--------|--------|--------|--------|---------------------|
| Population | 22,827 | 27,555 | 28,210 | 34,983 | 37,326 | 43,399 | 50,000              |

By the 1990s, Bozeman’s growth started to strain its resources. To address its growing pains, city leadership implemented impact fees in March 1996 to fund additional infrastructure. Impact fees were charged to new developments in Bozeman to pay for the capital aspects of key services, specifically the additional road, sewer, water, and fire/emergency medical service needs that the construction of these new developments would drive. Bozeman policymakers took the view that new users were the drivers of increased capital needs, rather than existing users, and therefore impact fees were a much fairer way to pay for this construction than increased property taxes on existing developments. Any new home or business that connects to water or sewer services or contracts with the city for fire protection must pay impact fees. Bozeman still levies property taxes, but they primarily cover basic municipal services and operations.

<sup>317</sup> *Bozeman Transportation Master Plan*, prepared by Robert Peccia & Associates and Alta Planning + Design for the city of Bozeman, Montana, April 25, 2017, [https://mdt.mt.gov/publications/docs/brochures/bozeman\\_tranplan\\_study.pdf](https://mdt.mt.gov/publications/docs/brochures/bozeman_tranplan_study.pdf).

<sup>318</sup> “Google Public Data,” Google, September 18, 2018, <https://www.google.com/publicdata/directory>.



Impact fees in Bozeman are set based on formal studies estimating the cost of growth over time and assigning a proportionate share of this cost to new construction. The amount of impact fees is dependent on key development attributes, such as whether the development is commercial, residential, or industrial; the size of the development; and other characteristics such as the development's number of bathrooms, parking lot size, and greenspaces. The city reviews the level of impact fees every 3–5 years.

### *III.2 Regulatory Considerations*

When impact fees were first established, Bozeman's authority to charge them was unclear under the Montana State Constitution. The city had started studying impact fees a decade prior to implementing them when it hired a private attorney to study their legality, along with a team of city and county lawyers. Despite the city's significant legal preparation in advance of launching its impact fee program, it faced challenges almost immediately from the inception of the program. In December 1996, less than a year after impact fees were launched, the executive director of the Business and Consumers Bureau of Montana, Inc., requested an official legal opinion on the program from Montana's attorney general. He pointed to language in Montana's constitution stating that cities do not have self-governing powers, but "only those powers expressly given them by legislature."<sup>319</sup> The city, on the other hand, believed that given its express jurisdiction over services such as fire, water, and streets, it also had the right to raise money for these services. This dispute between the city of Bozeman and developer advocates continued for several years. It is outlined further in Section III.5.

In 2005, the Montana State House and Senate passed Senate bill (SB) 185, which gave Bozeman and other municipalities the clear authority to impose impact fees. SB 185 was a compromise bill that also included some safeguards developers had sought in order to limit the scope of these fees. For example, SB 185 established limits around the use of impact fees, disallowing their use to pay for services and requiring they be used for capital improvements. SB 185 also restricted the collection of impact fees to five types of public facilities: water supplies, sewers, transportation, stormwater, and emergency services, the latter of which included police, emergency medical services, and fire protection. Any impact fees beyond these five categories must be approved by a two-thirds city council vote. Finally, the law established advisory committees to review how impact fee funds are spent.<sup>320</sup>

### *III.3 Market Considerations*

Impact fees have facilitated the improvement of Bozeman's infrastructure as it has continued to expand in population and size. To accommodate these ongoing changes and determine the impact fee levels that approximate the cost of providing new infrastructure, the city regularly hires consultants to conduct

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<sup>319</sup> Gain Shontzler, "Attorney General Declines Request for Impact Fee Opinion," *Bozeman Daily Chronicle*, December 9, 1996, [https://www.bozemandailychronicle.com/attorney-general-declines-request-for-impact-fee-opinion/article\\_3b0c3487-7fed-5858-87a4-4e7347888a2d.html](https://www.bozemandailychronicle.com/attorney-general-declines-request-for-impact-fee-opinion/article_3b0c3487-7fed-5858-87a4-4e7347888a2d.html).

<sup>320</sup> Walt Williams, "County May Study Impact Fees," *Bozeman Daily Chronicle*, December 7, 2005, [https://www.bozemandailychronicle.com/news/county-may-study-impact-fees/article\\_245282f4-1655-5e76-837c-91b5ca96d37b.html](https://www.bozemandailychronicle.com/news/county-may-study-impact-fees/article_245282f4-1655-5e76-837c-91b5ca96d37b.html).

market studies on its impact fees. The studies gauge how population expansion and certain types of developments, such as retail, restaurants, and industrial, will affect traffic and in turn affect road needs, based on person-miles added to the system. Bozeman then calculated how many city roads and State roads will need be built according to the city's transportation master plan, at a cost of \$3.3 million per lane-mile, and determined how to allocate these newly needed roads across new developments. Each person-mile of travel has been estimated to have a cost of \$319. Bozeman also began calculating and allocating bicycle and pedestrian miles created from new developments and included new bike lane and sidewalk construction as part of a more holistic transportation impact fee.<sup>321</sup>

Through this process, Bozeman was able to calculate the maximum allowable impact fee for each new development. This maximum allowable impact fee has increased with each study as costs and city needs have increased. The city council decides what percentage of the maximum allowable impact fee to charge. Bozeman has raised these fees several times, with street impact fees increasing to 60 percent of the maximum allowed in 2008. This increase caused fees for a 1,500- to 2,499-square-foot single family home to rise from \$2,380 to \$3,238. Those for a bank nearly doubled, from \$10,470 to \$19,024 per 1,000 square feet. Industry advocates viewed impact fees as harmful on the housing market, especially as the economy was struggling. For example, a 2007 study by the National Association of Home Builders concluded that every \$819 charged at the time of construction would add \$1,000 to the final price of a home.<sup>322</sup> Nonetheless, Bozeman went ahead due to significant needs to fund new infrastructure. After implementation, the city still expected to be short \$7.4 million over 5 years for capital improvement program street projects.<sup>323</sup> Between 2011 and 2012, Bozeman considered cutting street impact fees by one-third to stimulate sluggish home building in the aftermath of the 2007–2009 recession. However, a reduction in impact fees would have required the city to raise property taxes to cover the growth-induced costs, which many residents and politicians in the region would consider an unfair distribution of responsibility. The proposal was not implemented.<sup>324</sup> The housing market quickly recovered, and in 2013 Bozeman voted to charge the maximum allowable street impact fees.<sup>325</sup>

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<sup>321</sup> *City of Bozeman Transportation Impact Fee Update Study*, prepared by Tindale Oliver Consulting for the city of Bozeman, Montana, 2018, <https://www.bozeman.net/Home/ShowDocument?id=6942>.

<sup>322</sup> Amanda Ricker, "City to Consider Tripling Fire Impact Fees," *Bozeman Daily Chronicle*, June 21, 2008, [https://www.bozemandailychronicle.com/news/city-to-consider-tripling-fire-impact-fees/article\\_91600ade-6499-512a-9e81-83c9ba0952a7.html](https://www.bozemandailychronicle.com/news/city-to-consider-tripling-fire-impact-fees/article_91600ade-6499-512a-9e81-83c9ba0952a7.html).

<sup>323</sup> Amanda Ricker, "City Vote Upholds Impact Fee Increase," *Bozeman Daily Chronicle*, January 14, 2008, [https://www.bozemandailychronicle.com/news/city-vote-upholds-impact-fee-increase/article\\_25870262-9a2f-5191-991e-595289f74707.html](https://www.bozemandailychronicle.com/news/city-vote-upholds-impact-fee-increase/article_25870262-9a2f-5191-991e-595289f74707.html).

<sup>324</sup> Amanda Ricker, "Bozeman to Consider Cutting Street Impact Fees Monday," *Bozeman Daily Chronicle*, October 23, 2011, [https://www.bozemandailychronicle.com/news/city/bozeman-to-consider-cutting-street-impact-feesmonday/article\\_38845172-fd3b-11e0-b4d8-001cc4c03286.html](https://www.bozemandailychronicle.com/news/city/bozeman-to-consider-cutting-street-impact-feesmonday/article_38845172-fd3b-11e0-b4d8-001cc4c03286.html).

<sup>325</sup> Amanda Ricker, "Bozeman Votes to Charge Full Amount for Street Impact Fees," *Bozeman Daily Chronicle*, February 5, 2013, [https://www.bozemandailychronicle.com/news/city/bozeman-votes-to-charge-full-amount-for-street-impactfees/article\\_f002ba3c-6fae-11e2-9c48-001a4bcf887a.html](https://www.bozemandailychronicle.com/news/city/bozeman-votes-to-charge-full-amount-for-street-impactfees/article_f002ba3c-6fae-11e2-9c48-001a4bcf887a.html).



### III.4 Funding Plan

As discussed previously, Bozeman's impact fees cover road and other transportation infrastructure capital expansions and major renovations that can be attributed to growth, while property taxes cover operations and basic services. For instance, of the \$33 million in street construction estimated as required between 2015 and 2020, \$25.4 million or 77 percent, was projected to come from impact fees.<sup>326</sup>

In order to avoid increasing property taxes to pay for its remaining capital needs, in 2015 Bozeman established an "Arterial and Collector Special Assessment." The city expects to fund the remainder of its \$7.9 million in roadway capital needs from this assessment on all property owners within the Bozeman city limits.<sup>327, 328</sup> The city's arterial and collector fund also included significant monies from owner or developer payback agreements, Federal and State grants, reimbursements, and other sources.

Impact fees pay for a much larger share of Bozeman's streets' capital costs than in Montana's larger cities, in part because its small size precluded access to State funds.<sup>329</sup>

The impact fees calculated in Bozeman's most recent draft study (conducted in May 2018) would, when adopted, generate an average of \$3.5 million to \$5.0 million per year through 2040, or a total of \$80 million to \$115 million over the next 23 years.<sup>330</sup> The city's capital improvement plan for fiscal years 2018–2023 accounts for about \$57 million in total improvements, utilizing accumulated funds from past years and projected impact fee and arterial revenue during that period. About 70 percent of this capital funding is expected to come from road impact fees, with arterial revenue funding the balance. The revenue breakdown is shown in Figure 22.

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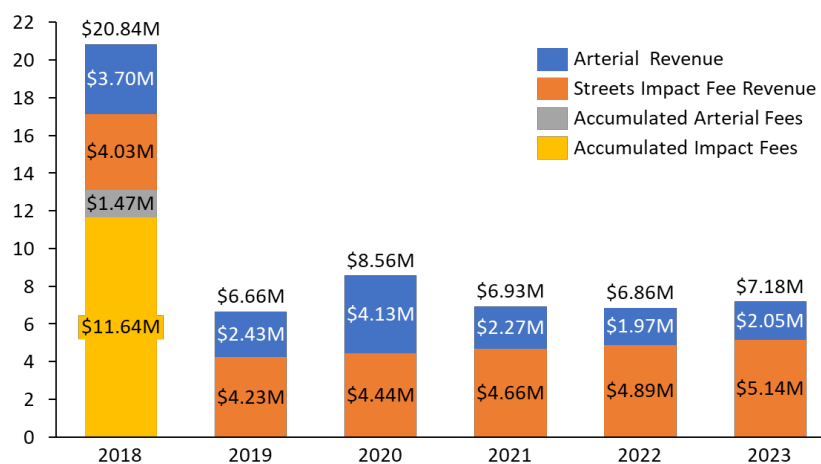
<sup>326</sup> City of Bozeman, Montana, *City Manager's Recommended Budget for Fiscal Year 2016*, May 11, 2015, <https://www.bozeman.net/home/showdocument?id=3731>.

<sup>327</sup> "Arterial and Collector Street Special Assessment," Bozeman, Montana, <https://www.bozeman.net/government/finance/special-assessments/arterial-and-collector-street-special-assessment>.

<sup>328</sup> Eric Dietrich, "Building Industry to Audit Bozeman Impact Fee Program," *Bozeman Daily Chronicle*, December 16, 2015, [https://www.bozemandailychronicle.com/news/city/building-industry-to-audit-bozeman-impact-fee-program/article\\_d0cbb86c-3091-5e21-abdb-7f43109a727e.html](https://www.bozemandailychronicle.com/news/city/building-industry-to-audit-bozeman-impact-fee-program/article_d0cbb86c-3091-5e21-abdb-7f43109a727e.html).

<sup>329</sup> Amanda Ricker, "Chamber, Developers Say Impact Fees Driving Businesses Away from Bozeman, But City Says It Would Have to Raise Taxes Without the Fees," *Bozeman Daily Chronicle*, July 31, 2011, [https://www.bozemandailychronicle.com/news/chamber-developers-say-impact-fees-driving-businesses-away-from-bozeman/article\\_903b4002-bafa-11e0-9e91-001cc4c002e0.html](https://www.bozemandailychronicle.com/news/chamber-developers-say-impact-fees-driving-businesses-away-from-bozeman/article_903b4002-bafa-11e0-9e91-001cc4c002e0.html).

<sup>330</sup> Tindale Oliver Consulting, *City of Bozeman Transportation Impact Fee Update Study*.



**Figure 22. Capital Funding for Transportation, Fiscal Years 2018-2023, Bozeman**

### III.5 Coordination and Partnership

#### Legal Challenges to Impact Fees

From the first year impact fees were implemented, Bozeman faced legal challenges, and for more than two decades, developer groups have continued to push back against them. A timeline of these disputes is as follows:

- **1996:** The Business and Consumers Bureau of Montana, Inc. challenged the authority of the city of Bozeman to establish impact fees.
- **1997:** Bozeman's streets impact fee was challenged by home developers, who argued that impact fees were charged too early, during the project approval phase, as opposed to when the impact occurs, after homes are built. Additionally, they charged that fees were unfairly allocated based on lot size, rather than the number of residents likely to occupy a unit. For example, a lot with a single home would pay the same amount as a multiplex development, regardless of expected occupancy.<sup>331</sup>
- **1998:** The city sought to double impact fees through a vote and put "Initiative 19" on the ballot. In November 1998, Bozeman voters passed Initiative 19.
- **1999:** In part because of Initiative 19, the developer community fully organized its opposition against the fees, and the Southwest Montana Business Industry Association filed a class action lawsuit challenging impact fees.
- **2001:** Developers achieved their first victory. In a blow to the city, Deer Lodge County Judge Ted Mizner did not rule against impact fees in general, but ruled that a ballot initiative was not an acceptable method to raise fees since fees could also be lowered through this process, and

<sup>331</sup> Al Knauber, "Developers Fight Impact Fees," *Bozeman Daily Chronicle*, March 30, 1997, [https://www.bozemandailychronicle.com/developers-fight-impact-fees/article\\_5a79d055-efd8-577a-97a0-743eda547da5.html](https://www.bozemandailychronicle.com/developers-fight-impact-fees/article_5a79d055-efd8-577a-97a0-743eda547da5.html).

allowing fees to be subject to voter approval would make the city's finances unstable. The city planned to appeal the case to the Montana Supreme Court.

- **2003:** A developer-sponsored bill to limit impact fees was voted down in the Montana State Senate.
- **2005:** The Southwest Montana Business Industry Association's (SWMBIA) class action suit against the city succeeded. Bozeman agreed to return \$5 million in impact fees collected to developers and reduce impact fee levels by 10 percent for 2 years until a study to determine the appropriate fee amount was completed. Shortly after, the Montana State House and Senate issued Montana cities the clear authority to charge impact fees, although limiting how they could be spent and providing for spending oversight.
- **2017:** SWMBIA again sued the city over impact fees, claiming that Bozeman misspent impact fee revenue by subsidizing better services for those already living in Bozeman, rather than adding capacity to accommodate new growth.<sup>332</sup>

Throughout this process, citizen activists, who had significant influence in Bozeman given its culture and small size, supported the impact fee. While developers on the other side of this argument were highly influential and well-resourced, the citizen activists made very vocal arguments that helped explain the benefits of the policy to residents, preventing developers from solely shaping the impact fee debate.<sup>333</sup>

### Impact Fee Effects on Developers and Attempts to Mitigate

Although impact fees enjoyed broad support, even sympathetic citizens and council members were concerned that they could harm the city's economy. As Bozeman sought to woo several national commercial chains, it found that many of its efforts failed or came close to failure. Citing impact fees, Kohl's threatened to scrap its plans for a new Bozeman store, although it ultimately relented. Meanwhile, Qdoba and Best Buy scoped Bozeman for potential locations, but both chose not to open sites in the city, with Qdoba choosing to locate 2 hours away in Billings, MT, instead. While it is unclear whether impact fees were the true motivation behind these stores' decisions, it is clear that Bozeman had higher fees than other cities in Gallatin County, other Montana cities, and other regional hubs such as Boise, ID, and Spokane, WA.<sup>334</sup>

Bozeman made several tweaks to its impact fees, mindful of the business community's concerns. For example, when Bozeman increased road impact fees to 60 percent in 2008 during a period when the city's retail market was especially sluggish, it included special incentives for retail spaces so that street impact fees dropped from \$6,672 to \$5,599.<sup>335</sup> In 2013, by unanimous vote, Bozeman also began permitting developers to defer payment of street impact fees until a structure was ready to be occupied,

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<sup>332</sup> Eric Dietrich, "SWMBIA Again Suing Bozeman Over City Impact Fees," *Bozeman Daily Chronicle*, June 15, 2017, [https://www.bozemandailychronicle.com/news/city/swmbia-again-suing-bozeman-over-city-impactfees/article\\_d8bca7ae-d777-54d5-8ef9-13e97e462dc5.html](https://www.bozemandailychronicle.com/news/city/swmbia-again-suing-bozeman-over-city-impactfees/article_d8bca7ae-d777-54d5-8ef9-13e97e462dc5.html).

<sup>333</sup> Steven Kirchhoff, former Bozeman mayor, Interview, December 5, 2018.

<sup>334</sup> Ricker, "Chamber, Developers Say Impact Fees Driving Businesses Away from Bozeman."

<sup>335</sup> Ricker, "City Vote Upholds Impact Fee Increase."

rather than when construction began, in line with an argument that developers had made at least since 1997. To reduce the risk of nonpayment if this option were exercised, the impact fee deferral process required a \$50 application fee, a lien against the property, a \$1,000 penalty, interest, and responsibility for the city's legal costs if fees were not paid on time.<sup>336</sup>

### III.6 Takeaways

- **Impact fees can work in tax-unfriendly environments.** While Bozeman residents were generally opposed to property tax increases, impact fees faced limited public backlash, such that voters were willing to increase them shortly after their passage. They were generally viewed as a fair way to allocate the costs of construction and, equally importantly, the constituency that would have opposed impact fees was relatively limited.
- **Prepare for legal challenges and seek authorization early.** Although confident they had the authorization, Bozeman could have lobbied the State to change legislation as early as possible and waited for this authorization before implementing impact fees. This may have saved the city from facing legal costs, fines, and the refunds required by various rulings.
- **Be mindful of the risks created by a fee and consider incentives to mitigate them.** While Bozeman did not always make the decision that developers would prefer, the city tried to balance some of its capital needs with the potential economic effects of impact fees and found ways to make them more palatable.

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<sup>336</sup> Amanda Ricker, "Bozeman Builders Will Be Allowed to Defer Impact Fees," *Bozeman Daily Chronicle*, April 2, 2013, [https://www.bozemandailychronicle.com/news/city/bozeman-builders-will-be-allowed-to-defer-impactfees/article\\_af8b45d6-9b47-11e2-9bcd-001a4bcf887a.html](https://www.bozemandailychronicle.com/news/city/bozeman-builders-will-be-allowed-to-defer-impactfees/article_af8b45d6-9b47-11e2-9bcd-001a4bcf887a.html).

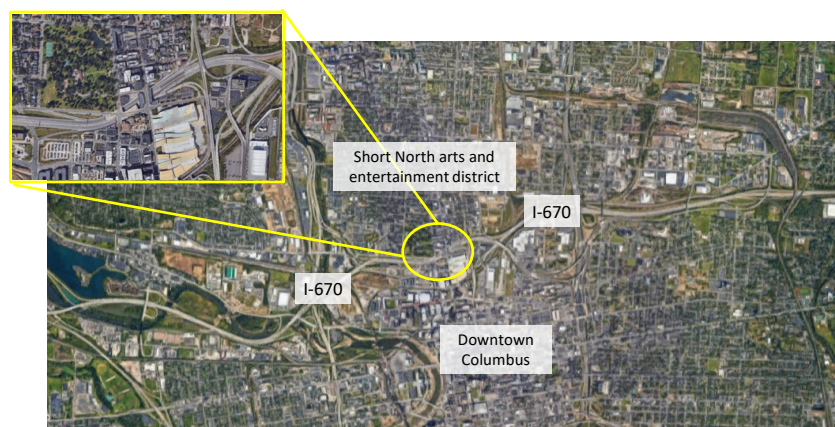
## IV The Cap at Union Station – Joint Development

The Cap at Union Station case study describes how governments and private developers can utilize above-grade joint development both to fund an infrastructure investment and to reconnect divided neighborhoods and improve the condition of distressed areas.

### IV.1 Project Overview

The Cap at Union Station in Columbus, OH, demonstrates how governments can partner with the private sector to create and share value in highway-related investments. The project began in 1995 when the city of Columbus was looking for a way to reconnect sections of downtown that had been bisected by the construction of I-670, an inner-belt highway, about 20 years earlier. The construction of the expressway became a barrier to the development of the area north of I-670, the Short North arts and entertainment district. Community groups opposed the proposed widening of the expressway, claiming it would further damage the urban landscape. The large convention center located downtown near I-670 was illustrative of this chasm, as restaurant owners south of I-670 received regular convention traffic, while those north of the highway received very little convention-related business.<sup>337</sup>

The location of the project is shown in Figure 23. Before the construction of the Cap at Union Station, the more prosperous southern neighborhood was separated from the less prosperous northern one by a pedestrian-unfriendly chain-link fence walkway. To heal the scar created by the expressway, the city sought to build a hard “cap” over it. While other cities such as Seattle and Kansas City have erected convention centers and/or parks over urban highways, the objective of the I-670 cap would be to create a pedestrian and retail space, one of the first speculative real estate projects of its kind.



**Figure 23. Location of the Cap at Union Station Project**

*Map data ©2019 Google*

<sup>337</sup> Kathy Showalter, "Merchants Set to Open in The Cap at Union Station, Amid Concerns Over Parking," Columbus Business First, August 30, 2004, <https://www.bizjournals.com/columbus/stories/2004/08/30/story1.html>.

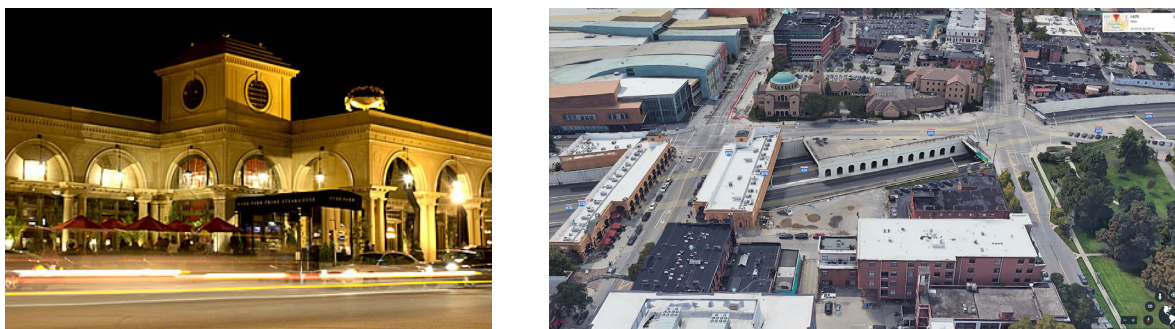


A local developer, Continental Real Estate Companies, approached the city and expressed interest in investing in the project. The company signed a memorandum of understanding with the city in 1999 to jointly develop a cap. The city determined that the development should evoke Columbus's former Union Station, which was demolished in the 1970s to make way for the nearby convention center. A depiction of the old Union Station building is shown in Figure 24.



**Figure 24. Union Station in 1970 (left) and North High Street in 1900 (right)**

*Source: Wikimedia Commons*



**Figure 25. A Restaurant Facade at The Cap (left) and The Cap from Above (right)**

*Source: The Hyde Park Restaurant Group (left) and ©2019 Google Earth (right)*

The memorandum of understanding (MoU) between Continental and the city included the following:

- The city would pursue clear title to the air rights above the highway and obtain permission from Ohio DOT (ODOT) and FHWA to construct the cap platforms.

- Once clear title was achieved and permits were obtained, Continental would enter into a ground lease for the platforms and construct the buildings.
- Continental would reimburse the city for up to \$75,000 in architectural fees for work completed prior to construction of the buildings on the cap.

The project was ultimately composed of three separate bridges: one for through-traffic across the highway, one for pedestrian bridges, and one for retail structures. Construction of the cap structures began in 2002, and Continental began work on the buildings in April 2003. Figure 25 depicts the final project.

#### *IV.2 Regulatory Considerations*

This section discusses the regulatory issues that arose during the project's development.

##### **Air Rights**

Obtaining air rights over the development proved to be a hurdle. When I-670 was constructed, the State acquired only ground rights. The city attorney's office undertook a title search on the land parcels under the proposed cap. The process of finding the owners of the air rights and procuring clear title to the project site took 2 years.

##### **Permits from FHWA**

FHWA places restrictions on use of highway easements for commercial use. Specific to this project and similar efforts involving private developers, it required that for the easement to be used for a non-highway use, fair market rent be charged to Continental for the use of the cap platforms. This proved challenging because, even without paying rent, Continental would need to charge above-market rates for retail leases to fund the project's construction cost. Also, parking was severely limited, further reducing the investment's attractiveness.

Ultimately, Continental was not willing to pay any rent, but instead negotiated an alternative arrangement whereby it would give the city 10 percent of the development's annual profits in lieu of paying rent, beyond a nominal \$1 annual lease for the platforms.

##### **Design Restrictions**

The unique restrictions of a project above a highway meant the city had to agree to the following:

- ODOT retained the right to evacuate the project in case of emergencies.
- No windows or signage were permitted on the back of the building.
- No access to the building's rear was allowed, such as via catwalk or the roof.

#### *IV.3 Market Considerations*

Key to the economic viability of the project was Continental's ability to secure long-term, above-market leases for the new buildings. Before Continental was able to secure financing, it secured tenants willing to

pay rents that, at \$25 to \$35 per square foot, were approximately 20- to 30-percent higher than those in the surrounding area.

Tenants were willing to pay higher rents because they valued the cachet of the location and proximity to the convention center. Continental also ensured a mix of day and night tenants to keep the space as active as possible. The space currently features a wine bar, a clothing store, an apparel and gift shop and smaller specialty food stores.

#### *IV.4 Funding Plan*

The funding plan consisted of a number of elements, as discussed below.

##### **Preliminary Design**

The city spent \$115,000 on the preliminary design needed to secure the regulatory approvals. Per the MoU, Continental reimbursed the city for \$75,000 of this cost.

##### **Construction of the Cap and Bridges**

ODOT agreed to pay \$1.3 million for the construction of the three bridges. The city paid the additional \$325,000 required to extend utilities to the platform via the concrete bay.

##### **Construction of the Retail Building**

Continental assumed the entire cost of the improvements on top of the cap.

The company originally used the following to finance the construction:

- A \$4.2 million conventional loan.
- \$1.3 million in mezzanine debt.
- An equity contribution of \$500,000.

Later, after securing more tenants, Continental refinanced to a \$7 million conventional loan on more favorable terms. The additional financing was used to fund the higher-than-expected costs of tenant improvements.

The city also provided Continental a 10-year, 100-percent property tax abatement, improving the project's economics.

#### *IV.5 Coordination and Partnership*

Several partnerships were required to make the project successful.



**City-Developer**

The relationship between the city and developer was important from the outset. In addition to the areas of cooperation in the MoU described above, the city had to work with the developer on the difficult task of extending utilities across a bridge to the project. This was ultimately resolved with the design innovation of an internal concrete bay.

**FHWA-City**

Since FHWA funded the original construction of the expressway, the alternative use of the highway easement required FHWA approval and buy-in.

**ODOT-City**

Similarly, since ODOT would be operating the highway, all the design elements of the project required close coordination with and approval from ODOT.

**Other Planning Authorities**

Prior to construction, Continental had to obtain design approval from the Downtown Commission, the Italian Village Commission, and the Victorian Village Commission.

*IV.6 Takeaways*

This project highlights an innovative partnership between a private developer, a city, a State DOT and FHWA to support urban development. Key takeaways include the following:

- The project demonstrates how interstate widening projects can contribute to urban renewal with limited incremental cost to government.
- Community groups originally opposed the I-670 widening but were appeased with the cap that increased urban walkability and provided accessibility to the Short North area. The widening was eventually built.
- Retailers are willing to pay a premium for locations with high accessibility and cachet.

## V Capitol Crossing – Air Rights Joint Development

The Capitol Crossing project, formerly the I-395 air rights project, highlights the use of property taxes and air rights as funding techniques for a real estate development.

### V.1 Project Overview

Capitol Crossing is a \$1.3 billion, 2.2-million-square-foot real estate development, often also referred to as a community revitalization project, in downtown Washington, DC, between the U.S. Capitol, Union Station, and the Verizon Center (see Figure 26). The project's objective is to reconnect the Capitol Hill and the East End areas that were cut off from each other by the construction of I-395 in the late 1960s. The project is privately funded and is one of the largest ongoing private developments in DC.<sup>338</sup> Once finished, the project is expected to create a first-of-its-kind "ecodistrict" in DC, with all of its five buildings designed to qualify for a Leadership in Energy and Environmental Design (LEED) platinum rating and to have green roof areas and a water capture and containment system. The project is expected to transform the area by reconnecting the street grid and offering commercial office and ground-floor retail space.

### History of the Project

Capitol Crossing has several decades of history. In the mid-1980s, T. Conrad Monts, owner of Travenca Development Corporation, submitted an unsolicited proposal to the District of Columbia to buy or lease the air rights over I-395. Monts planned to build a \$200 million office and hotel complex. Community activists and DC City Council members pushed back against Monts' proposal, for reasons that included the \$12 million relocation cost for the city's main financial computer facility and the proposal's unsolicited format, but these concerns were not strong enough to halt Monts' proposal.<sup>339</sup>

In 1989, then-DC Mayor Marion Barry awarded Monts the air rights over I-395 between D Street and Massachusetts Avenue, and on December 28, 1990, the city and Travenca Development Corporation signed a final lease for the property. With the support of Mayor Barry, Monts submitted plans to the Washington, DC, Zoning Commission. The plans called for 3 office buildings, a 300-room hotel, and 266 apartments. After the plan was approved, criticism continued from community activists and the DC City Council, with Georgetown University Law Center also supporting the opposition. New complaints about the project also surfaced, including concerns about the shortcomings of the size, footprint, and design of the project and that the \$45 million appraisal of air rights was too low. However, city officials continued to back the proposal.<sup>340</sup>

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<sup>338</sup> Capitol Crossing (@CapitolCrossingDC), "Capitol Crossing Construction Animation," Video, 2:44, December 14, 2016, <https://www.facebook.com/CapitolCrossingDC/videos/1681934075166129/>.

<sup>339</sup> Wally Mlyniec, "Make No Little Plans; Part III — Early Attempts to Develop the Air Rights," Medium, February 12, 2018, <https://medium.com/construction-notes/make-no-little-plans-part-iii-early-attempts-to-develop-the-air-rights-a18bf2e51eaf>.

<sup>340</sup> Mlyniec, "Make No Little Plans."

The DC Zoning Commission approved Monts' plan in 1991, but only after requesting modifications that altered the size of the project and minimized certain traffic concerns. By 1995, construction still had not started, and Monts filed a request to extend the order for 2 years, which was approved. By 1999, no progress had been made. The collapse of the real estate market in the early 1990s halted DC developments, financing was difficult to obtain, and objections to the project continued.<sup>341</sup>

In July 2000, the DC City Council sued in order to evict Monts from the I-395 property and compel him to pay \$4 million in lost rent. Monts responded with a countersuit seeking \$15 million for spent costs and another \$50 million in compensatory damages. In 2004, a DC Superior Court grand jury awarded Monts \$8.4 million in damages. Both sides appealed to the DC Court of Appeals and continued negotiations.<sup>342</sup> In July 2003, after another year of public hearings and disputes, the Zoning Commission voted unanimously to deny the request for the extension, thereby ending Monts' ability to develop the project.<sup>343</sup>

In 2005, the New York-based Property Group Partners offered to pay a settlement to Monts in exchange for the right to buy the property from the city at fair market value. Property Group Partners paid the sum in 2009, after Monts' death, and acquired the air rights for the project in 2012. Property Group Partners also negotiated an arrangement with the city in which the cost of the building would determine how much they would ultimately pay the city for the property air rights.<sup>344</sup>

In 2011, the environmental assessment for the I-395 Air Rights project commenced. The project was also reviewed under Section 106 of the National Historic Preservation Act, and the environmental assessment included a Section 106 Effects Assessment. A public hearing was organized on November 2, 2011.<sup>345</sup> On March 26, 2012, FHWA approved the environmental assessment with a finding of no significant impact (FONSI).

### Scope and Construction Timeline

The 7.5-acre site spans three city blocks. Four of the five planned buildings are expected to be used for office space, with the remaining building to be used for residential purposes. The five buildings will be connected by public greenspace and an F & G Street bridge replacement.<sup>346</sup> The project will also include an underground, four-level parking garage with space for 1,146 cars and 440 bicycles.<sup>347</sup>

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<sup>341</sup> Mlyniec, "Make No Little Plans."

<sup>342</sup> Douglas A. Willinger, "Previous Center Leg Air Rights Proposals Respected the Freeway Right-of-Way," *A Trip Within the Beltway* (blog), December 13, 2014, <http://www.tripwithinthelbeltway.blogspot.com/2014/12/previous-center-leg-air-rights.html>.

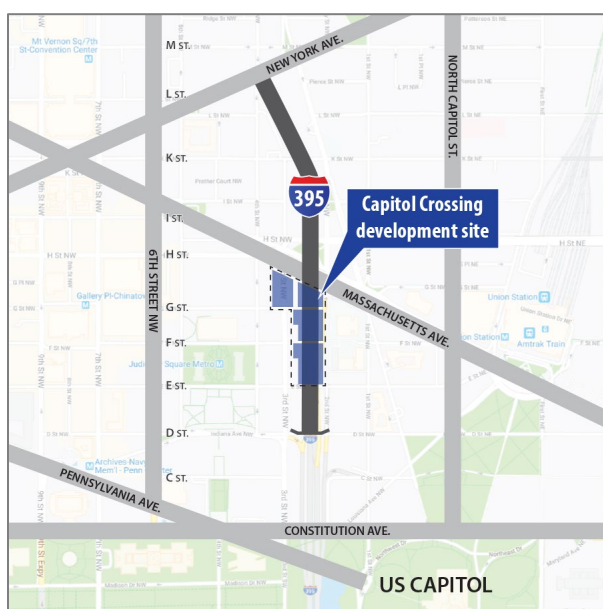
<sup>343</sup> Mlyniec, "Make No Little Plans."

<sup>344</sup> Justin Rice, "D.C. Air Rights Project Restores City Traffic Grid," *ENR MidAtlantic*, December 19, 2016, <https://www.enr.com/articles/41120-dc-air-rights-project-restores-city-traffic-grid>.

<sup>345</sup> Federal Highway Administration, District of Columbia Division, Notice of Availability and Public Hearing, "Environmental Assessment for the I-395 Air Rights Project," *Federal Register*, 76 FR 64991, October 19, 2011, <https://www.federalregister.gov/documents/2011/10/19/2011-27033/environmental-assessment-for-the-i-395-air-rights-project>.

<sup>346</sup> Capitol Crossing, "Construction Animation."

<sup>347</sup> Michelle Goldchain, "Capitol Crossing: What to Expect from One of DC's Largest Revitalization projects," *Curbed Washington DC*, April 6, 2016, <https://dc.curbed.com/2016/4/6/11376906/capitol-crossing-washington-dc>.



**Figure 26. Capitol Crossing Development Site**

Source: FHWA

In May 2015, one year after beginning site work, Property Group Partners broke ground on the project.<sup>348</sup> Construction is expected to continue until 2021. The process began with a site excavation/preparation and utility installation, followed by the construction of a new southbound on-ramp and the relocation of the existing northbound on-ramp on Massachusetts Avenue. The final stages of the project include the completion of the center block. Access to the two parking entrances will be located along Third Street, with the loading dock entrance on E Street.

### V.2 Implementation Considerations

Property Group Partners requested the closure of more than half a mile of I-395 for more than a year in order to save 18 months of construction time. The request, which the District Department of Transportation forwarded on to FHWA, was opposed by community members. The closure would have had a significant impact, as that stretch of I-395 carries up to 90,000 vehicles daily. In addition, because the closure was not considered as part of the original environmental impact studies, it would have required a FONSI re-evaluation and potentially an environmental assessment and an environmental

<sup>348</sup> Michael Neibauer, "Capitol Crossing Returns 'a Whole Section of the City That Was Lost to Us,'" *Washington Business Journal*, May 12, 2015, [https://www.bizjournals.com/washington/breaking\\_ground/2015/05/capitol-crossing-returns-a-whole-section-of-the.html](https://www.bizjournals.com/washington/breaking_ground/2015/05/capitol-crossing-returns-a-whole-section-of-the.html).

impact statement. This could have taken up to 36 months.<sup>349</sup> In the end, the closure was not approved, although lanes and ramps were permitted to be closed temporarily, mostly during off-peak hours.<sup>350</sup>

### V.3 Market Considerations

One of the challenges for a project like Capitol Crossing is to have sufficient land value to justify the platform building cost. Robert Braunohler, regional vice president for Property Group Partners, noted that “there are only two cities where land value is high enough and they are New York and Washington. There aren’t just empty sites just sitting around.”<sup>351</sup> A project like Capitol Crossing may not be easily replicable in other cities or jurisdictions for this reason.<sup>352</sup>

### V.4 Funding Plan

Many of the specific financial details of this transaction remain confidential. According to news sources, the \$1.3 billion project is expected to generate roughly \$40 million in property taxes and \$120 million in air rights to the District.<sup>353 354</sup>

### V.5 Coordination and Partnership

#### Political Support for the Project

The city has supported and been committed to this project since its beginning. Despite decades of delays and controversies, as well as the collapse of the first attempts to construct the project, the idea for the project was never fully abandoned.

#### Relationship with Stakeholders

As part of the regulatory processes, the developer engaged local communities, including Georgetown University, the Downtown DC business improvement district, the Federal City Shelter, Holy Rosary Church, the Jewish Historical Society, and the residents in the adjacent buildings. The project required

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<sup>349</sup> Goldchain, “Capitol Crossing: What to Expect.”

<sup>350</sup> Luz Lazo, “Study Needed to Decide on Request to Close Part of I-395 in DC, Federal Officials Say,” *The Washington Post*, December 8, 2014, [www.washingtonpost.com/local/trafficandcommuting/study-needed-to-decide-on-request-to-close-part-of-i-395-in-dc-state-officials-say/2014/12/08/30a633ae-7f00-11e4-8882-03cf08410beb\\_story.html?utm\\_term=.f3185403cb84](http://www.washingtonpost.com/local/trafficandcommuting/study-needed-to-decide-on-request-to-close-part-of-i-395-in-dc-state-officials-say/2014/12/08/30a633ae-7f00-11e4-8882-03cf08410beb_story.html?utm_term=.f3185403cb84).

<sup>351</sup> Rice, “D.C. Air Rights Project.”

<sup>352</sup> O’Connell, “Capitol Crossing Is ‘Very Tough to Get,’ but Will Be Worth It.”

<sup>353</sup> Michael Neibauer, “Capitol Crossing on the Verge of Going Vertical,” Video, *Washington Business Journal*, January 13, 2016, [https://www.bizjournals.com/washington/breaking\\_ground/2016/01/capitol-crossing-on-the-verge-of-going-vertical.html](https://www.bizjournals.com/washington/breaking_ground/2016/01/capitol-crossing-on-the-verge-of-going-vertical.html).

<sup>354</sup> Goldchain, “Capitol Crossing: What to Expect.”

the relocation of DC's oldest synagogue and the Holy Rosary Church. Both were managed without significant project opposition.

### Relationship with the Federal Government

Federal officials criticized Property Group Partners' request to close I-395 for a year to speed up construction.<sup>355</sup> The main complaint raised was that officials were not informed about the proposal and found out about it from media outlets. This highlights the importance of clear stakeholder communication.<sup>356</sup>

FHWA has been a major critic of the project because the initial processes, including the right-of-way agreement, were conducted under regulations that are no longer relevant today. After the initial project had been approved, relevant project regulations changed, as did FHWA personnel. Another criticism voiced by FHWA was related to a low-income housing component that was originally part of the project plans but was moved out of the development and into a less desirable neighborhood. This drew criticism of the project from a social equity perspective.<sup>357</sup>

### V.6 Takeaways

- **Impacts:** The construction phase for an air rights project has impacts on the existing infrastructure, and these impacts should be clearly communicated to stakeholders. Although the closure of I-395 requested by Property Group Partners was rejected, there would still be numerous closures of lanes and ramps throughout the construction period. Such closures can impact community support for the project if not carefully managed and communicated.
- **Platform Cost:** One of the challenges with an air rights project like Capitol Crossing is to have sufficient land value to justify the cost of building the platform. Because of this consideration, a project like this may not be replicable in many cities.
- **Change in Regulation:** For a project like Capitol Crossing that experiences numerous starts and stops over a period of decades, changes in regulations and requirements should be carefully managed to ensure the final project is brought up to date with any changes that may have occurred since the project was initially approved.

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<sup>355</sup> Meyer, Eugene L. "A Project Mends a Gash in the Street Grid of Washington." *New York Times*, October 25, 2016, [www.nytimes.com/2016/10/26/realestate/commercial/a-project-mends-a-gash-in-the-street-grid-of-washington.html](http://www.nytimes.com/2016/10/26/realestate/commercial/a-project-mends-a-gash-in-the-street-grid-of-washington.html).

<sup>356</sup> Michelle Goldchain, "Capitol Crossing Developers Outrage Congress Over I-395," *DC Curbed*, December 9, 2014, <https://dc.curbed.com/2014/12/9/10014032/capitol-crossing-developers-outrage-congress-over-i395-closing>.

<sup>357</sup> Interviews with District employees, November 29, 2018.

## VI E-470 Toll Road and Vehicle Registration Fees

The E-470 is a Colorado toll highway that received most of its funding from toll revenues, yet also received material support from value capture methods including developer right-of-way (ROW) contributions, vehicle registration fees, and highway expansion fees. It also benefited from modest joint development on its ROW.

### VI.1 Project Overview

E-470 is a 47-mile, primarily four-lane, limited-access toll road that makes up a major portion of a circumferential beltway around the eastern portion of the Denver metropolitan area. E-470 connects in the south to the I-25/C-470 interchange and in the north to the I-25/Northwest Parkway interchange. It is also a major link to the Denver International Airport.<sup>358</sup>

The idea of E-470, or I-470 as originally planned, began in the 1960s when the Colorado Department of Highways (predecessor to the Colorado Department of Transportation [CDOT]), perceived a need for a beltway around the Denver metro area.<sup>359</sup> The project was initially delayed due to opposition from the Colorado Department of Health and other stakeholders concerned it would create air pollution.<sup>360</sup>

In 1987, the project was relabeled C-470, reflecting State rather than Federal ownership, and in 1990, the southwestern quadrant of the road segment was completed.<sup>361</sup>

The implementation of E-470 dates back to 1981, when Arapahoe County, Douglas County, Greenwood Village, and private developers began the “Centennial Airport Influence Area Transportation Study.” The 1982 study recommended the extension of C-470 east and north to I-70. In the absence of Federal and State funding, Adams, Arapahoe, and Douglas counties joined to form the E-470 Authority, the predecessor of the current E-470 Public Highway Authority, through an intergovernmental memorandum of understanding. The city of Aurora joined a year later.<sup>362</sup>

### VI.2 Regulatory Considerations

#### Framework Legislation

As planning commenced in the 1980s, stakeholders sought legislative powers to realize the project. In 1987 the Colorado Legislature approved the Public Highway Authority Act, giving E-470 the following powers:

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<sup>358</sup> Thomas J. Noel, *E-470: More Than a Highway, the Story of a Global Tolling Industry Pioneer*, Denver: E-470 Public Highway Authority, 2018, <https://www.e-470.com/Documents/AboutUs/E-470%20History%20Book.pdf>.

<sup>359</sup> Noel, *More Than a Highway*, p. 7.

<sup>360</sup> Noel, *More Than a Highway*, p. 7.

<sup>361</sup> Noel, *More Than a Highway*, p. 8.

<sup>362</sup> Noel, *More Than a Highway*, p. 9.

1. To construct, finance, operate, or maintain beltways and other transportation improvements.
2. To take private property by condemnation.
3. To establish and collect tolls on any highway provided by the E-470 Public Highway Authority.
4. To establish and collect highway expansion fees from persons developing property within the boundaries of the E-470 Public Highway Authority, generally 1.5 miles on either side of the highway centerline.
5. To issue bonds and pledge revenues to the payment of bonds.
6. To succeed to the obligations of other governmental entities.
7. With voter approval, to impose vehicle registration fees and create special districts.
8. Also, with voter approval, to impose taxes and fees within any part of the member governments' jurisdiction. The fees and taxes requiring an election are a sales or use tax, an employment privilege tax, a business occupation tax, and a motor vehicle registration fee.<sup>363</sup>

E-470 used all the powers listed above in items 1 through 8, except for those in item 7 to create special districts. The successful 1988 vehicle registration fee election was the only E-470 measure that was voted on by affected residents. E-470 never imposed taxes, and the ability to impose taxes was removed by subsequent legislation.<sup>364</sup>

In August 1988, the Authority unanimously adopted a resolution endorsing a finance plan that included a \$10 per vehicle registration fee to be collected within E-470's voting boundaries (parts of Adams, Arapahoe, and Douglas counties), highway expansion fees to be imposed within the Authority's geographical boundaries, and highway tolls on E-470 as sections of it opened.<sup>365</sup>

The highway expansion fees were one-time fees paid when a building permit was issued for new construction within 1.5 miles of the E-470 centerline.<sup>366</sup> The fee schedule was based on the following real estate characteristics:

- Fees varied by single family residential, multi-family residential, retail, office, and industrial property.
- Traffic impact on E-470.
- Unique traffic trip-generating factors for different locations,<sup>367</sup> including scaling fees so that developments closer to E-470 or interchanges paid more.<sup>368</sup>

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<sup>363</sup> Noel, *More Than a Highway*, p. 12-13.

<sup>364</sup> Noel, *More Than a Highway*, p. 12-13.

<sup>365</sup> Noel, *More Than a Highway*, p. 13.

<sup>366</sup> "E-470 Board Votes to Eliminate Highway Expansion Fee," *Toll Roads News*, July 27, 2017, <https://tollroadsnews.com/mailbag/e-470-board-votes-eliminate-highway-expansion-fee/>.

<sup>367</sup> "E-470 Fee Explanation," Commerce City, Colorado, November 29, 2018, <https://www.c3gov.com/home/showdocument?id=1008>.

<sup>368</sup> "Project: E-470 Denver," AASHTO EconWorks Case Study, [https://planningtools.transportation.org/290/view-case-study.html?case\\_id=40](https://planningtools.transportation.org/290/view-case-study.html?case_id=40).



Beginning in 1989, E-470 began to impose and collect highway expansion fees, which resulted in negligible total fees of \$14,000 in 1990. The fee eventually increased to over \$300,000 per year, serving as an important funding source in the project's early years.<sup>369</sup>

### Regulatory and Financing Conditions for First Segment

The project's first financing came in August 1986 when Arapahoe County issued more than \$722 million in bonds on behalf of the Authority. These monies were escrowed until adequate credit protections were in place.<sup>370</sup> E-470 was able to begin construction when it obtained a 1989 letter of credit from the Union Bank of Switzerland (UBS) that secured payment of the bonds, 3 months after a successful voter election. The UBS arrangement permitted E-470 to break escrow on \$68.7 million in bonds, enough to complete construction on the first segment.

## VI.3 Market Considerations

### Segment I Business Case

The 1989 financial feasibility analysis projected that tolls would pay 85 to 92 percent of the capital costs, with about 7 percent of these costs through the highway expansion fee and the remainder covered by the \$10 per vehicle registration fees.<sup>371</sup>

In actuality, tolls were the project's primary funding source, yet vehicle registration fees were also a material funding source. When Segment 1 opened in mid-1991, toll revenue for that year totaled \$226,000 and the Authority received approximately \$4.7 million in revenues from vehicle registration fees, underscoring the importance of that source in the early years.<sup>372</sup>

Highway expansion fees supported the project in the early years as well. They amounted to \$150,000 on average in the first 5 years of operations, from 1995 to 1999, ranging from 0.63 percent to 2.06 percent of total revenue. The fees grew to as much as \$1.3 million in 2005. During the time that they were in place, from 1995 to 2017, they averaged \$335,000 per year.<sup>373</sup>

By 2015, vehicle registration fees of \$10.1 million were 5 percent of total revenues, and highway expansion fees were again below 1 percent of total revenues.<sup>374</sup> Vehicle registration fees are not traditionally considered a value capture source, since they are usually imposed on a regional or statewide

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<sup>369</sup> Erin Douglas, "E-470 Eliminates Development Fee Near Highway," *Denver Post*, July 31, 2017, <https://www.denverpost.com/2017/07/31/e-470-eliminates-development-fee-near-highway/>.

<sup>370</sup> Noel, *More Than a Highway*, p. 4.

<sup>371</sup> Noel, *More Than a Highway*, p. 4.

<sup>372</sup> Noel, *More Than a Highway*, p. 15.

<sup>373</sup> Jason Meyers, *E-470 HEF to Total Revenue 1994-2017*, Spreadsheet provided via email to Sasha Page, November 30, 2018.

<sup>374</sup> E-470 Public Highway Authority, *Year 2015 Cash Flow Summary*, 2016, <https://www.dacbond.com/GetContent?id=0900bbc78013f2a4>.

basis. However, this vehicle registration fee was only collected within E-470's voting boundaries—parts of Adams, Arapahoe, and Douglas counties—similar to sales tax districts used to fund transportation projects.

### **Segment II-IV Business Case**

The construction of the subsequent Segments II–IV was more challenging than Segment I. In October 1990, UBS withdrew its April 1990 proposal to provide letter of credit financing for the remaining tollway segments due to the Persian Gulf crisis, international economic crises, and the savings and loan crisis. A joint venture led by Morrison-Knudsen (MK), an international construction firm, proposed to design and build Segments II–IV and take the lead in realizing the financial plan as follows:<sup>375</sup>

- A \$20 million loan from CDOT and a similar \$20 million loan from Douglas and Adams counties, as well as Parker, Thornton, Aurora, and Brighton.
- Moving the alignment about 1 mile closer to the already established population base, driving more traffic and more toll revenue and reducing construction costs.
- The purchase by MK of \$16 million of subordinate bonds, which would be repaid after the senior toll road bonds and the local and State loans were repaid.

This plan was eventually accomplished, but only after 2 years of litigation from a jurisdiction opposing the plan, since they perceived the new alignment as diminishing their development opportunities.

#### *VI.4 Funding Plan*

### **Other Funding Sources**

E-470 also benefited from other sources, including cell tower and solar panel installation. Along a 17-mile portion of the corridor, the Authority installed 22 solar sites to host solar-generated electricity panels for road surveillance cameras, signage, variable message signs, streetlights, toll collection equipment, toll plazas, maintenance facilities, and the E-470's headquarters. While this reduced E-470's electricity costs,<sup>376</sup> as with highway expansion fees, these savings were not material, amounting to less than 1 percent of total revenues.

### **Creditworthiness, Finance, and Funding**

The Authority has paid all debt service on outstanding debt and/or retired its obligations, including State and local loans that were repaid earlier than expected. For the remaining debt, E-470 bondholders

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<sup>375</sup> Noel, *More Than a Highway*, p. 18.

<sup>376</sup> Noel, *More Than a Highway*, p. 36.

enjoyed high ratings which, as of February 2017, were BBB+, A-, and A3 for Fitch Ratings, Standard & Poor's, and Moody's, respectively.<sup>377 378</sup>

In the highway expansion fee and the vehicle registration fee were rescinded in 2017 and 2018, respectively. The former was rescinded because the fee collection placed a high administrative burden on the member jurisdictions, which had to calculate the fees and then collect them with the building permits, and there were 15 pages of fees that varied according to real estate characteristics. Furthermore, over time, the fees became smaller as a percentage of revenue and less important overall.<sup>379</sup>

E-470 has had a major impact on the Denver metropolitan area. The Authority estimates that, since 1986, E-470 has been the catalyst for more than \$38.4 billion in real estate construction and appreciation along its 47-mile-long corridor, and that corridor developments contribute \$467 million in annual property taxes.<sup>380</sup>

Furthermore, E-470 has catalyzed development in the far eastern suburbs of Denver, increased the rate of development in the region, and accelerated the timetable for development by as much as 15 years, according to some observers.<sup>381</sup>

#### *VI.5 Coordination and Partnership*

Three major sources of support helped to realize the E-470 project. First, E-470 was supported by three counties and several municipalities that planned it. CDOT also supported it eventually with monies that helped with its design and engineering.

Second, the successful ballot election in 1988 was a critical referendum on the project, confirming the support of most residents and giving the Authority permission to apply the vehicle registration fee and highway expansion fee. These funds also provided valuable non-toll funding sources at project start and demonstrated local commitment.<sup>382</sup>

Third, the project relied on significant support from developers and landowners along or near the alignment. Initial proponents included George M. Wallace, who had earlier helped develop the Denver Tech Center, which is considered Denver's second downtown.<sup>383</sup> They also included Cal Fulenwider III, who owned property near the project. The E-470 Executive Advisory Committee, chaired by Fulenwider,

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<sup>377</sup> Noel, *More Than a Highway*, p. 36.

<sup>378</sup> Fitch Ratings, "Fitch Affirms E-470 Public Highway Authority's (CO) Revs at 'BBB'; Outlook Stable," June 15, 2016, <https://www.sectorpublishingintelligence.co.uk/news/1427230/fitch+affirms+e470+public+highway+authorities+co+revs+at+bbb+outlook+stable>

<sup>379</sup> Jason Meyers, *FHWA Every Day Counts: E-470 Case Study*, email to Sasha Page, November 30, 2018.

<sup>380</sup> Noel, *More Than a Highway*, p. 48.

<sup>381</sup> AASHTO EconWorks, "Project: E-470 Denver."

<sup>382</sup> Jason Meyers, email.

<sup>383</sup> Noel, *More Than a Highway*, p. 9.

comprised a half-dozen major land developers who came to the table to discuss land acquisition options. Furthermore, several advocates, including developers, funded and ran an independent political group, the BELT Committee (Build E-470 for Less Traffic), to support the project.<sup>384</sup>

These developers donated around \$175 million in ROW to E-470,<sup>385</sup> a major contribution to the project given its cost of over \$1 billion. According to Fulenwider, “E-470 came to me to put together an executive committee of major landowners. We both wanted a pioneering, productive P3 with give and take. We donated probably 4–5 miles of land. In exchange, we were given a voice on where the interchanges would be built.”<sup>386</sup> Fulenwider was later involved with major developments in the E-470 corridor, including the 3,000-acre Reunion master planned community in Commerce City and the Peña Station, a transit-oriented development near Denver International Airport.<sup>387</sup>

About 25 percent of the ROW in Segment I was acquired through donations. Significant donations continued for other highways, such as Cal Fulenwider’s donations between 56th and 112th Avenues.<sup>388</sup> For the remaining ROW, the Authority negotiated most purchases, with a total outlay of around \$50 million. Condemnation was rarely used.<sup>389</sup>

## VI.6 Takeaways

Various forms of value capture helped make the E-470 possible:

- The highway expansion fee, a form of development fee, was expected to play a material role in phasing the first E-470 segment, yet this did not occur. The actual highway expansion fee revenues were de minimis compared to the project’s \$1.23 billion capital cost.<sup>390</sup>
- Vehicle registration fees were a material funding source, especially early on when they amounted to as much as 8 percent of total revenues. They can be interpreted as a form of value capture, since they were imposed primarily on areas adjacent to E-470.
- The contribution of developers and landowners for ROW was very material to the project, amounting to more than 10 percent of project costs.
- Developers were also very instrumental in providing other resources and advocating for the project.

While value capture helped realize the project, the primary funding source was toll revenues. Bondholders, financial intermediaries, local and State agencies, and the design-build joint venture took significant risks in lending to this project.

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<sup>384</sup> Noel, *More Than a Highway*, p. 14-15.

<sup>385</sup> Noel, *More Than a Highway*, p. 4.

<sup>386</sup> Noel, *More Than a Highway*, p. 10.

<sup>387</sup> Noel, *More Than a Highway*, p. 10.

<sup>388</sup> Noel, *More Than a Highway*, p. 16.

<sup>389</sup> Noel, *More Than a Highway*, p. 16.

<sup>390</sup> “Project Profile: E-470 Tollway,” U.S. Department of Transportation Federal Highway Administration, [https://www.fhwa.dot.gov/ipd/project\\_profiles/co\\_e470.aspx](https://www.fhwa.dot.gov/ipd/project_profiles/co_e470.aspx).

## VII Hays County, Texas – Transportation Reinvestment Zone

The Hays County transportation reinvestment zone (TRZ) project highlights the use of TRZs in funding and facilitating major highway projects. It highlights the need to do thorough analysis of potential legal threats to value capture initiatives.

### VII.1 Project Overview

#### The Growth of Hays County and San Marcos

Hays County, TX, is located about halfway between Austin and San Antonio, and the city of San Marcos is the county seat. San Marcos is also home to Texas State University, which has nearly 40,000 students. Both Hays County, with a population of 200,000, and San Marcos, with a population of 65,000, have grown rapidly over the last several years. Both have frequently ranked among the five fastest-growing jurisdictions in the United States, with San Marcos having registered the fastest growth rate in the country several times in the last few years.<sup>391</sup> The university's population has also increased significantly. It is a commuter school, with about 60 percent of its students living outside of the San Marcos area. The rapid growth of the city, the county, and the university has strained the region's roads, which are notorious for congestion.

To accommodate this growth, as well as to repair existing roads, the county adopted a transportation master plan in 2013. As part of this effort, it established the Hays County-Texas Department of Transportation (TxDOT) partnership. The partnership's projects sought to allow the county to keep up with the increased number of vehicles traveling on its roadways and have allowed Hays County to build roads today that would otherwise have taken 20 or more years to construct.<sup>392, 393</sup>

#### Formation of the Hays County and San Marcos TRZ

Local leaders pushed for implementation of TRZs soon after this legislation was passed. Two Hays County commissioners approached TxDOT's executive director about whether the new legislation could help a critical road project, farm-to-market (FM) road 110, which was a 13.1-mile loop (see Figure 27) that had been planned by the county and city since the 1960s.

The FM 110 project is the development of a key corridor through central Hays County with the goal of reducing congestion on existing connections such as I-35. This project was the county's "number one priority"<sup>394</sup> at the time it was approved. While the project was historically planned and critically important, TxDOT had no funding for FM 110, and it was not programmed for construction for over 10 years. Working with the city of San Marcos, a financial partner in the project, Hays County entered into a contract, known as an advance funding agreement, with TxDOT to implement a TRZ to fund FM 110. By

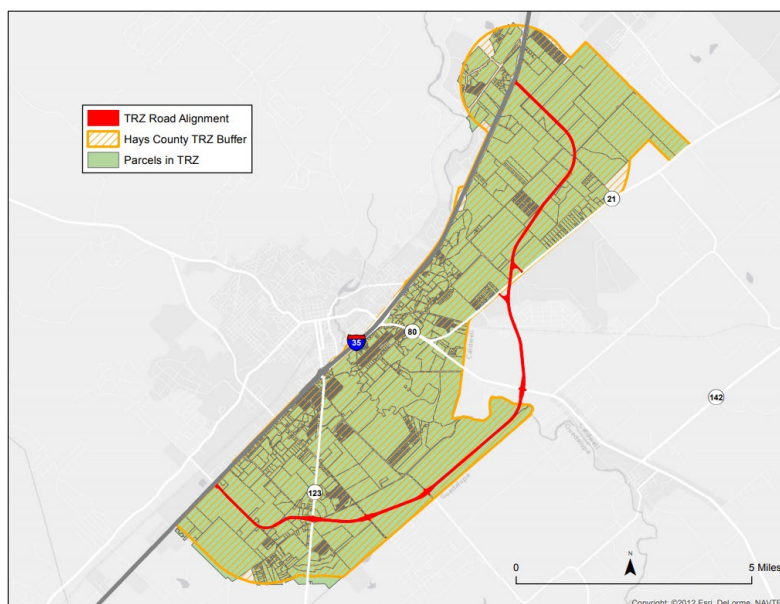
<sup>391</sup> Chris Eudaily, "San Marcos Rate of Population Growth Leads Nation – Why It's Booming," *Texas Public Radio*, May 30, 2013.

<sup>392</sup> Bailey Buckingham, "Hays County Continues to Lead Growth, Named Fastest Growing County in Texas." *The University Star*, 4 April 2016.

<sup>393</sup> Buckingham, "Hays County."

<sup>394</sup> Debbie Ingalsbe, Memo: Hays County-TxDOT Partnership Proposal, December 10, 2012.

2014, Hays County and the city of San Marcos had created a TRZ to build FM 110. There was little or no opposition to the FM 110 project and TRZ creation, with Hays County voters twice overwhelmingly approving road bonds for portions of FM 110. Unique to this project as compared to other TRZs in the State was that both the county and city were involved.



**Figure 27. FM 110 Loop and Hays County Transportation Reinvestment Zone<sup>395</sup>**

*Source: San Marcos Mercury*

## VII.2 Regulatory Considerations

### TRZ Background

The Texas Legislature enabled TRZs in 2007 for counties and municipalities. The purpose of a TRZ is to allow a transportation project to capture a share of revenue from the incremental property and/or sales tax revenue growth in a designated area.

The following steps are required to form a TRZ:

1. Identify project/needs.
2. Research for zone formation.
3. Define boundaries.
4. Hold a public hearing.
5. Pass an ordinance or order.
6. Establish base year for tax collection.
7. Determine tax increment through feasibility study.
8. Establish funding mechanism.

<sup>395</sup> "Transportation Reinvestment Zones in Hays County and the City of San Marcos," TXP, Inc., September 2013.

TRZs do not increase taxes, but they capture additional tax revenue from increased property values, new development, and/or increased sales. When TRZs were initially created, they were only permitted for counties and municipalities receiving pass-through funding from TxDOT for transportation projects, but this is no longer the case. Several updates to Texas's TRZ law have occurred since its initial 2007 creation. In most cases, the legislature expanded use of the tool. The following are the most notable legislative updates to TRZs:<sup>396</sup>

- TRZs are decoupled from pass-through funding.
- Sales tax increment is permitted for TRZs.
- TRZs are permitted in adjacent jurisdictions to a project, rather than solely in the project jurisdiction.
- TRZ administration by multiple jurisdictions is permitted.
- Port, airport, rail, parking, and other TRZs are enabled.

### Driving Factors behind TRZ Legislation

In 2003, the Texas Legislature approved House bill 3588, which established a pass-through financing system in the transportation code. This system allowed public or private entities to construct State highways and receive payment from TxDOT following project completion based on the anticipated volume of traffic on a road. The State found that its pass-through program was extremely popular, as it helped many localities get projects off the ground faster. However, the program did not have the resources to sustain itself, as the high demand from localities exceeded the funds available. Therefore, TRZs were considered as a way to shore up the pass-through program with a dedicated local revenue source. House bill 3588 was championed most heavily by then-State Senator Eliot Shapleigh from El Paso, which was the first jurisdiction in Texas to establish a TRZ.

Texas had other forms of value capture, including tax increment financing (TIF) districts, prior to establishing TRZs. However, under Texas law, traditional TIF could be time-consuming and expensive to create and manage. All taxing jurisdictions in a city or county, including school districts, junior colleges, hospital districts, and others are required to sign a participation agreement and have a seat on a TIF board, even if they do not financially participate. The plan of finance for a TIF district can also be time-consuming to manage. As Texas TIF laws require votes to form a majority of any TIF board to make any key decisions, a local municipality can easily lose control of a TIF district, posing risks to any project for which such a district is established. While the complexity of the decision-making structure of TIF districts provided many key stakeholders with a voice in these projects, it was cumbersome for local elected officials to administer. Because of this, TRZs were created in part to allow counties and cities to quickly

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<sup>396</sup> *Interim Report to the 85th Texas Legislature*. Texas House Committee on Transportation. January 2017.



and effortlessly create a tax increment district. TRZ legislation ensured that these arrangements would be relatively simple and quick to establish and manage. As such, TRZs serve a similar purpose as TIF districts, without their complications.<sup>397</sup>

### VII.3 Market Considerations

Under the terms of the 2014 advance funding agreement with TxDOT, Hays County paid for 100 percent of the project development, including construction plan development, right-of-way acquisition, utility relocation, and preliminary engineering and construction activities for FM 110, amounting to approximately \$15.4 million.<sup>398</sup> The county funded these activities with voter-authorized general obligation bonds. In addition, TxDOT agreed to build the project and loan the county the money for 100 percent of the FM 110's \$48 million construction cost through the Texas State Infrastructure Bank (SIB). Local officials recognized there would be significant economic development associated with FM 110 and were willing to commit part of their future tax base to repay TxDOT. Without the road, development in the area was likely to be constrained. The revenue from the Hays County TRZ was calculated on the incremental growth of the aggregate property values within the TRZ multiplied by local property tax rates, multiplied by 50 percent. Therefore, 50 percent of the new tax revenue was designated to FM 110, while the remaining revenue was to be allocated to existing city and county needs.<sup>399</sup>

Hays County had enlisted a consulting firm to assess the viability of a TRZ. At the establishment of the TRZ in 2013, land values in the district were valued at \$1.1 billion. The study analyzed potential boundaries, taxable ad valorem value, the duration of the TRZ (projected to not extend past 25 years), and different levels of tax increment from 25 to 100 percent. Underpinning this research was data on regional population growth, constraints to growth in the TRZ, employment growth, and real estate and housing market trends. The housing trends data included new construction, a mix of single- and multi-family housing and home prices data. The consultant also assessed the number of new developments that were already planned within the zone, as these would serve as a relatively low risk source of new property tax revenue—and thus TRZ revenue. Based on the study results, the city and county settled on TRZ boundaries and a 50 percent increment. After these parameters were set, the zone was estimated to be able to generate between \$63.3 million and \$74.9 million in net present value terms and, as such, could conservatively repay the \$48.0 million SIB loan principal and interest in 22 years.<sup>400 401</sup>

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<sup>397</sup> Mike Weaver, Interview, October 10, 2018.

<sup>398</sup> Hubert Stewart, *Executed Advance Funding Agreement*, Memorandum, Hays County and Texas Department of Transportation Contract Services Office, July 9, 2014.

<sup>399</sup> W. Ferguson, "Hays County, San Marcos Partner on FM 110," *Community Impact Newspaper*, August 13, 2013,

<sup>400</sup> "Hays County and San Marcos Partner on TRZs to Benefit Roads, FM 110," TXP, Inc., October 2013, <https://txp.com/news/hays-county-and-san-marcos-partner-on-trzs-to-benefit-roads-fm-110>.

<sup>401</sup> Mike Weaver, Notes, November 12, 2018.



#### VII.4 Funding Plan

During the negotiations with TxDOT, there was an issue regarding the county paying interest on the \$48.0 million TRZ loan. While TxDOT wanted to treat the loan as a SIB loan, the county pushed back on the loan interest rates and TxDOT's requirement that the loan be classified as a liability on the county's balance sheet. The county wanted the TRZ financing to be an off-balance sheet financing, in other words, non-recourse to the county.<sup>402</sup>

A compromise was developed with then-TxDOT Finance Director James Bass that allowed the county to classify the obligation as "off-balance" sheet financing, while also reducing the risk to TxDOT. The county, using the consultant firm's financial feasibility study, developed a 20- to 30-year payment schedule with the county paying TxDOT 100 percent of collected TRZ revenues every year, regardless of the scheduled repayment. This way, if development in the TRZ was significant and the tax increment collected was larger than projected, the full amount of the 50-percent TRZ monies would flow to TxDOT. Monies that were in excess of the expected annual amounts to pay debt service were used as "prepayment," thereby allowing TxDOT to be repaid sooner than expected. Thus far, collected TRZ revenues significantly exceed the forecast. The long-term payback through the TRZ and variable annual payments were more favorable to the county than any alternative sources of financing.<sup>403</sup>

#### VII.5 Coordination and Partnership

The Hays County TRZ has experienced some complications. In 2015, after the Hays County TRZ was established and financing documents were executed, the Texas attorney general struck down county TRZs, stating they violated the "Equal and Uniform Taxation" clause in the Texas State Constitution. The clause requires that property owners within a particular county must all contribute the same share of their taxes to a county's general fund.<sup>404</sup> A TRZ would violate this clause, because while property owners within a TRZ were paying the same tax rate as other property owners within a county, fewer of their payments would go into the general fund because a share of their property taxes would flow to a separate project.<sup>405</sup> After this ruling, several Texas counties shelved their plans for TRZs or eliminated TRZs that they had already established. Similarly, the Hays County/ San Marcos arrangement was at risk.

Based on the Texas attorney general's opinion, the county and TxDOT had to devise an alternative way to repay TxDOT. The county and its advisors developed another approach, which consisted of dissolving the TRZ but continuing to set aside a 50-percent increment from the properties in the area. Those funds would all go into the county general fund, like all collected property taxes, and the county would then write a check to TxDOT to pay down project costs, as they have done under other advance funding

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<sup>402</sup> Mike Weaver, Notes, November 12, 2018.

<sup>403</sup> Mike Weaver, Notes, November 12, 2018.

<sup>404</sup> Ken Paxton, Texas Attorney General, to Joseph C. Pickett, Chair, Committee on Transportation, Texas House of Representatives. Opinion No. KP-0004. February 26, 2015.

<sup>405</sup> *Interim Report to the 85th Texas Legislature*. Texas House Committee on Transportation. January 2017.

agreements. Under this arrangement, the same payment schedule and term of the original advance funding agreement would remain. This device, which was approved by TxDOT, has allowed the payments to continue in the near term. In the long term, Hays County and other Texas counties are seeking an amendment to the constitution's Equal and Uniform Taxation clause to allow for implementation of county TRZs without such workarounds.<sup>406</sup>

The county's repayment to TxDOT has had some impact on its economic development policies. As the FM 110 project opens the eastern part of the county to new development, many new residences and mixed-use retail/warehouse developments have opened, including a new Amazon fulfillment center, and thousands of new properties are expected to follow. Once the county and city each committed 50 percent of the property taxes from the zone, there was little room left for future tax abatements with new developments. There continue to be many companies proposing to locate in the new corridor, and many are requesting tax abatements as high as 80 percent, which is not possible with 50 percent of property taxes from the area already committed, especially since the remaining 50 percent of property taxes are needed to fund county and city services there. So far, that has not dissuaded businesses from locating in the area.<sup>407</sup>

#### VII.6 Takeaways

- **Existing value capture tools may be outmoded and may require modifications to succeed.** Although Texas already had TIF legislation, very few municipalities thought it worthwhile to go through the cumbersome process to set up a TIF district. As a result, many projects languished for years with no clear source of funding. Rather than accept this status quo, Texas legislators pushed for the implementation of a similar tool with fewer strings attached and because of this simple reset, more municipalities were able to utilize the tool and work on critical transportation projects.
- **Even popular initiatives may require constitutional amendments to survive judicial challenges.** TRZs were approved overwhelmingly by a bipartisan group of legislators in both Texas legislative bodies. They were immensely popular among local politicians and rarely faced significant citizen opposition. Despite this, they were challenged in court and partially struck down.

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<sup>406</sup> Mike Weaver, Notes, November 12, 2018, and December 17, 2018.

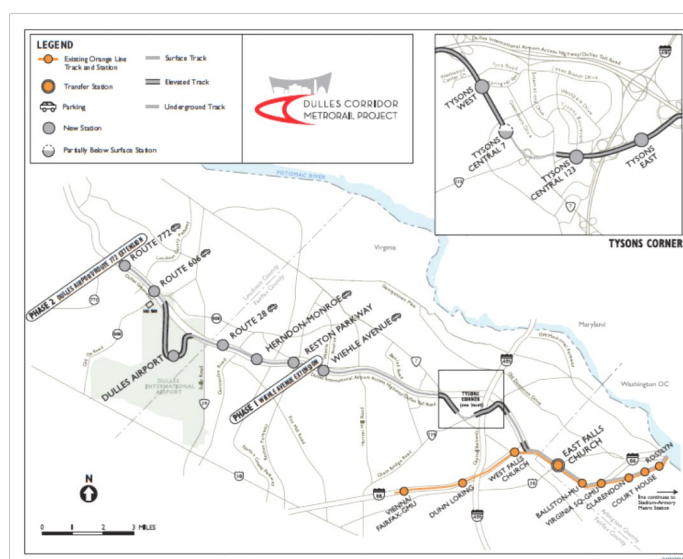
<sup>407</sup> Mike Weaver, Notes, November 12, 2018.

## VIII Silver Line/Dulles Metrorail – Special Tax District

The Silver Line/Dulles Metrorail project highlights the use of a special tax district to pay for a significant portion of a major transit project. The project also involved significant support and cooperation from the local business community.<sup>408</sup>

### VIII.1 Project Overview

The Dulles Metrorail Corridor Project, also known as the Silver Line, is a 23-mile extension of the Washington, DC, region's Metro system. The project is being designed and built in two phases by the Metropolitan Washington Airports Authority (MWAA). Phase 1 consists of 11.7 miles of rail and five stations, connecting some of the DC region's largest employment centers to downtown Washington, DC. Phase 2 will add 11.4 miles of rail and six stations, including a station at Dulles International Airport. Now operational since July 2014, Phase 1 has been transferred to the Washington Metropolitan Area Transit Authority. That phase is now known as the Silver Line, a designation that will also apply to Phase 2. Figure 28 shows a map of the project.



**Figure 28. Dulles Corridor Metrorail Project Map<sup>409</sup>**

Source: Dulles Corridor Metrorail Project

In total, the project will increase the size of the Metro system by over 20 percent. Value capture sources have funded approximately one-fifth of the project. Overall, the two phases of the project, totaling \$5.7

<sup>408</sup> This case is based on material from Sasha Page et al., *TCRP Report 190: Guide to Value Capture Financing for Public Transportation Projects*, 88-96.

<sup>409</sup> "What is Dulles Metrorail?" Dulles Corridor Metrorail Project, 2015, <http://www.dullesmetro.com/about-dulles-rail/what-is-dulles-metrorail/>

billion, are being funded with a combination of tolls, commercial tax districts, and Federal and State grants, as shown in Table 20.

**Table 20. Dulles Metrorail Funding and Financing (\$ million)<sup>410</sup>**

| Source of Capital             | Phase 1        | Phase 2        | Total Budget   | Project Budget (%) | TIFIA <sup>1</sup> Loan          |
|-------------------------------|----------------|----------------|----------------|--------------------|----------------------------------|
| Federal Grant                 | \$900          | N/A            | \$900*         | 15.8%              | N/A                              |
| Commonwealth of Virginia      | \$252          | \$323          | \$575*         | 10.1%              | N/A                              |
| Fairfax County                | \$400          | \$515          | \$915          | 16.1%**            | \$403                            |
| Loudoun County                | N/A            | \$273          | \$273          | 4.8%**             | \$195                            |
| MWAA (Aviation Funds)         | N/A            | \$233          | \$233          | 4.1%**             | N/A                              |
| MWAA (Dulles Toll Road)       | \$1,354        | \$1,434        | \$2,788        | 49.0%***           | \$1,277                          |
| <b>Total Sources of Funds</b> | <b>\$2,906</b> | <b>\$2,778</b> | <b>\$5,684</b> | <b>100.0%</b>      | <b>\$1,876</b><br>(33% of total) |

<sup>1</sup>Transportation Infrastructure Finance and Innovation Act

\*Fixed amount, \*\*Fixed percentage of total cost, \*\*\*Residual

Local funding responsibility was allocated as follows:

- Fairfax County: 16.1 percent
- Loudoun County: 4.8 percent
- MWAA: 4.1 percent

This case focuses on the contribution from Fairfax County, particularly the first of its two transportation improvement districts (TIDs), the Phase 1 TID, which provided most of the project's value capture funding. The Phase 1 TID set the precedent for the Phase 2 TID and the Loudoun tax district.

Fairfax County's 16.1 percent share of the project is estimated to be approximately \$915 million (the amount will be known once Phase 2 is complete in 2019). Fairfax County is expected to contribute the following:

- For Phase 1: \$400 million from the Phase I tax district.

<sup>410</sup>Dulles Corridor Metrorail Project, "What is Dulles Metrorail?"

- For Phase 2: \$515 million.
  - \$330 million from the Phase II tax district.
  - \$185 million will consist of proceeds from a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan that will be repaid using the county's commercial and industrial real estate tax and regional funds from the Northern Virginia Transportation Authority.<sup>411</sup>

## VIII.2 Regulatory Considerations

Dulles Metrorail stakeholders initiated a variety of planning changes following the Phase 1 TID formation. In general, these changes were made to allow denser, urban-like developments around the Dulles Metrorail stations within the Phase 1 and Phase 2 TIDs. Many of these changes were expected to benefit some of the landowners since, with greater density, their property would become more valuable.

In 2010, Fairfax County adopted the Comprehensive Plan for Tysons Corner. Concurrently, Fairfax County adopted a zoning ordinance amendment that established a new district called the Planned Tysons Corner Urban District. These included several transportation initiatives, including redesign of the street grid to make it more urban, reengineering of major intersections, and implementation of a bike share program.<sup>412</sup>

Fairfax County also made planning changes under a comprehensive plan amendment that affected the three Metrorail stations that were part of the Phase 2 TID. It adopted a new plan for street grids and bike lanes and new overpass planning.<sup>413</sup>

Furthermore, in 2011 Fairfax County, in collaboration with developers, created a new non-profit called Tysons Partnership that sought to move forward a comprehensive approach to redevelopment that included marketing and branding, transportation, urban design/planning, public facilities and community amenities, and finance.<sup>414</sup>

Securing the funding for the Dulles Rail Corridor was a pre-requisite for enacting the Comprehensive Plan for Tysons. Since the adoption of this plan, 15 major redevelopment proposals have been approved or are pending approval within Tysons. These projects are primarily located within a quarter of a mile of a Metrorail station and represent 61 million square feet of development.<sup>415</sup>

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<sup>411</sup> Fairfax County, "Fund 40120: Dulles Rail Phase II Transportation Improvement District," *FY 2017 Fairfax County Advertised Budget Plan, 2016*, <http://www.fairfaxcounty.gov/dmb/fy2017/advertised/volume2/40120.pdf>.

<sup>412</sup> Fairfax County Economic Development Authority, \$173,960,000 Fairfax County Economic Development Authority, Transportation District Improvement Revenue Refunding Bonds (Silver Line Phase I Project), Series 2016.

<sup>413</sup> Fairfax County Economic Development Authority.

<sup>414</sup> Fairfax County Economic Development Authority.

<sup>415</sup> Fairfax County Economic Development Authority.

The additional \$0.19 Phase 1 TID tax has increased the base tax rate for property owners in the area by 22 percent, not including other tax costs, such as for stormwater, leaf collection, and water, that are assessed in certain parts of Fairfax County. In theory, this could have been a competitive disadvantage, but developer representatives believe that competing locations throughout the Washington, DC, region have similar all-in tax burdens. Furthermore, the tremendous development at Tysons and in other parts of the Dulles Metrorail Corridor in the last 5 years suggests that the tax rates have not been an obstacle.<sup>416</sup> Table 21 gives an overview of this timeline.

**Table 21. Dulles Metrorail Value Capture Timeline**<sup>417 418 419 420</sup>

| Year | Project Stage  |
|------|--|
| 1964 | The Federal Aviation Administration recommends reservation of median of Dulles International Airport Access Highway for future transit line.   |
| 1985 | Dulles Access Rapid Transit sponsors study for transit line to Dulles International Airport, raising funds through assessments.  |
| 1988 | Virginia General Assembly permits creation of special taxing districts for transportation for landowners along Route 28.   |
| 2002 | The Federal Transit Administration announces that, due to funding limitations, project cannot be funded as a single project.   |
| 2003 | City of Herndon turns down participation in special tax district out of concern as to whether its businesses would support a project that benefits Tysons area competitors while Phase 2 project would be delayed. |
| 2003 | Landowners submit Phase 1 TID petition.  |
| 2004 | Fairfax County establishes Phase 1 TID.  |
| 2009 | Fairfax County establishes Phase 2 TID.  |
| 2010 | Fairfax County adopts Tysons Plan.   |

<sup>416</sup> Interview with individual who worked with the developer group in Phase 1 TID, April 11, 2016.

<sup>417</sup> Fairfax County, "Fund 40110: Dulles Rail Phase II Transportation Improvement District." *FY 2017 Fairfax County Advertised Budget Plan*, 2016, <http://www.fairfaxcounty.gov/dmb/fy2017/advertised/volume2/40110.pdf>.

<sup>418</sup> Fairfax County, "Fund 40120: Dulles Rail Phase II Transportation Improvement District."

<sup>419</sup> Fairfax County Economic Development Authority.

<sup>420</sup> Dulles Corridor Metrorail Project, "What is Dulles Metrorail?"

| Year | Project Stage  |
|------|--|
| 2010 | MWAA issues \$343 million of Dulles Toll Road bonds.   |
| 2011 | Fairfax County issues \$206 million Phase 1 TID bonds.   |
| 2012 | Fairfax County issues \$42 million Phase 1 TID bonds.  |
| 2013 | Loudoun County creates Metro Service Districts.  |
| 2014 | Washington Metropolitan Area Transit Authority opens Phase 1 Line for passenger service.   |
| 2014 | Fairfax County and Loudoun County close TIFIA loans, in part supported by Fairfax County Phase 2 TID and Loudoun County Metro Service Districts. |
| 2019 | Phase 2 completion (expected).   |

### Legal Approach: Phase 1 TID

Fairfax County had an obligation to fund 16.1 percent of the \$5.7 billion project, or \$400 million for Phase 1 and \$515 million for Phase 2.<sup>421</sup> The county established a special tax district on commercial and industrial properties in 2004 to fund its portion of the Phase 1 TID. The Phase 1 TID consisted of most of the Tysons Corner Urban Center and an area around the Phase 1 stations, as shown in Figure 29.

TIDs were authorized by the Commonwealth of Virginia. Commercial and industrial property within a TID can be taxed to raise funds for transportation improvements within its boundaries. A TID can be created upon the petition of the owners of at least 51 percent of the real property located within the proposed district that is zoned or used for commercial or industrial purposes, as measured by land area or assessed value. In a TID, most multifamily rental properties are also considered to be for “commercial purposes,” and thus count toward land area and assessed value and are taxed. However, no other residential properties are taxed. The properties that signed the petition for the Phase 1 TID constituted more than 64 percent of such property as measured by assessed value.<sup>422</sup>

<sup>421</sup> Fairfax County, “Fund 40110: Dulles Rail Phase II Transportation Improvement District.”

<sup>422</sup> Fairfax County, “Fund 40110: Dulles Rail Phase II Transportation Improvement District.”

The Phase 1 TID allows a tax level of up to \$0.40 per \$100 of assessed fair market value, but the Fairfax Board of Supervisors cannot adopt a plan of finance that would require a tax greater than \$0.29 per \$100 of assessed fair market value.<sup>423</sup> The most recent tax rate is \$0.19 per \$100 of assessed value.<sup>424</sup>

The Phase 1 TID financing does not rely on the credit of either Fairfax County or the Commonwealth of Virginia and is therefore truly “non-recourse,”<sup>425</sup> unlike the Route 28 financing nearby as discussed in the Virginia Route 28 case study (see Appendix Section X).



**Figure 29. Phase 1 Transportation Improvement District Map**

*Source: Fairfax County Economic Development Authority*

### VIII.3 Market Considerations

The Dulles Corridor is a key portion of the Washington, DC, region and contributes heavily to its economic activity. The Dulles Corridor includes Tysons Corner, with approximately 37 million square feet of office, commercial, and retail space and five Fortune 5000 company headquarters, and the Reston-

<sup>423</sup> Fairfax County Economic Development Authority.

<sup>424</sup> Fairfax County Economic Development Authority.

<sup>425</sup> Fairfax County Economic Development Authority.



Herndon area, a fast-growing commercial district, among other key properties on the way to Dulles Airport.<sup>426</sup>

The DC region has benefited from the growth of the Federal Government and ancillary businesses, including aerospace, information technology, and telecommunications. As Figure 30 shows, the assessed value of the taxable commercial and industrial properties in the Phase 1 TID essentially doubled from 2001 to 2010 from \$5.0 billion to \$12.4 billion and grew at a compounded annual growth rate of 4.6 percent between 1985 and 2016, despite enduring several major real estate market downturns. This also included the impact of Federal Government budget cuts that reduced jobs at some major government contractors in defense and other sectors, some of which are located on the Dulles Corridor.<sup>427</sup>

Furthermore, projections show that over the next 25 years, the population in the Dulles Corridor's Tysons Corner area is expected to grow by 45 percent, and the number of jobs in the area is projected to grow by 63 percent.<sup>428</sup>

#### *VIII.4 Funding Plan*

As shown in Figure 30, the taxable property value in the Phase 1 TID has grown steadily from 2011 onwards, reflecting strong asset valuations in spite of a slight decrease in the tax rate from \$0.22 in 2012 to \$0.19 in 2016.<sup>429</sup>

Due to the Phase 1 TID's robust revenues, its bonds were rated AA, Aa1, and AA by Fitch, Moody's, and Standard & Poor's, respectively.<sup>430</sup>

#### *VIII.5 Coordination and Partnership*

The planning and organization that went into the Dulles Metrorail is complex, goes back decades, and is linked to the creation of the Dulles International Airport. The Dulles Metrorail, or a form of it, was always considered as part of the airport, but could not be realized for several decades due to a lack of funding.<sup>431</sup>

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<sup>426</sup> Fitch Ratings, "Fitch Rates Fairfax County, VA Econ. Dev. Auth. Revs 'AA'; Outlook Stable," February 19, 2016, <https://www.businesswire.com/news/home/20160219006017/en/Fitch-Rates-Fairfax-County-VA-Econ.-Dev.>

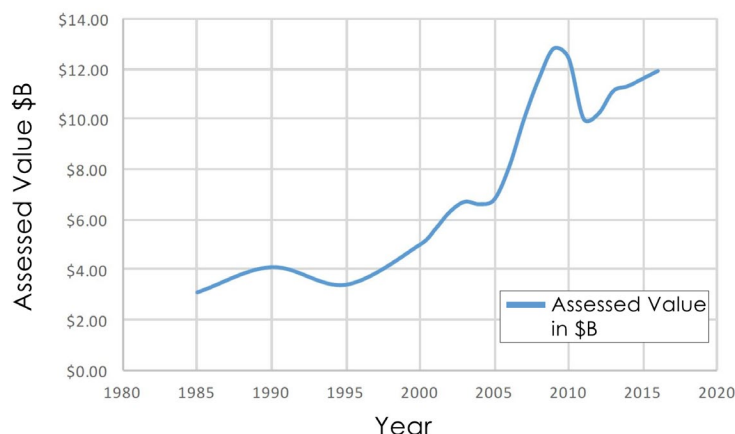
<sup>427</sup> Fairfax County Economic Development Authority.

<sup>428</sup> Chrissy M. Nichols, "Value Capture Case Studies: Washington, DC Metro Expansion to Dulles Airport," Metropolitan Planning Council, April 12, 2012, <https://www.metroplanning.org/news/6384/Value-Capture-Case-Studies-Washington-DC-Metro-expansion-to-Dulles-Airport.>

<sup>429</sup> Fairfax County Economic Development Authority.

<sup>430</sup> Fairfax County Economic Development Authority.

<sup>431</sup> Paul Dugan, "The Silver Line Story: A New Route is Born after Decades of Faulty Planning, Political Paralysis," *The Washington Post*, June 23, 2014, [https://www.washingtonpost.com/local/trafficandcommuting/the-silver-line-story-a-new-route-is-born-after-decades-of-faulty-planning-political-paralysis/2014/06/23/bdf619c4-f894-11e3-a606-946fd632f9f1\\_story.html](https://www.washingtonpost.com/local/trafficandcommuting/the-silver-line-story-a-new-route-is-born-after-decades-of-faulty-planning-political-paralysis/2014/06/23/bdf619c4-f894-11e3-a606-946fd632f9f1_story.html).



**Figure 30. Phase 1 TID Property Assessed Value (\$B)**

*Source: Fairfax Economic Development Authority*

One of the major initiatives to push the Dulles Metrorail forward was spurred by a group of developers in the Dulles Corridor who agreed to fund a portion of the local share of the project through special district tax financing. The group was called Landowners Economic Alliance for the Dulles Extension of Rail (LEADER) and consisted of early Tysons Corner landowners. This group began to evaluate the possibility of a rail connection to Tysons as early as the 1980s, putting money into planning studies. The work went through several economic slowdowns in the early 1980s and 1990s.<sup>432 433</sup>

LEADER's work heated up in the late 1990s and into the early 2000s as it sought to recruit 50 percent of the landowners by assessed value in the Dulles Corridor to approve the Phase 1 TID. Convincing major landowners and lease holders to support the effort, including the large corporations in the corridor, was relatively straightforward, since they understood the benefits of providing employees and visitors with alternative transportation options in an increasingly congested corridor. Convincing smaller landowners was more difficult, since many of them owned or leased to small retail operations, including gas stations, strip malls, and auto dealers. These smaller landowners did not necessarily value the benefits of the Phase 1 TID or simply were not interested in participating in the process. Furthermore, some developers had long-term leases with major corporations that meant they were opposed to paying the higher Phase 1 taxes that would be passed through to them in the lease.<sup>434</sup>

<sup>432</sup> Interview with individual who worked with the developer group in Phase 1 TID.

<sup>433</sup> Dugan, "The Silver Line Story."

<sup>434</sup> Interview with individual who worked with the developer group in Phase 1 TID.

LEADER hired two well-known Virginia politicians to work with the group to convince the remaining landowners to support the TID. This effort was ultimately successful.<sup>435</sup>

The project was very complex because, as Table 22 shows, it involved two major transportation agencies, two county governments, the Commonwealth of Virginia, and the Federal Government. These governmental bodies played various roles, including providing funding and financing and participation in key negotiations.

**Table 22. Major Project Participants**<sup>436 437 438 439</sup>

| Stakeholder   | Description of Role  |
|---|--|
| <b>Washington Metropolitan Area Transit Authority (WMATA)</b> | Transit agency that took over Phase 1 of the project and operates the Silver Line. WMATA is expected to do the same for Phase 2 once it becomes operational.   |
| <b>Metropolitan Washington Airports Authority (MWAA)</b>      | Airports authority that is overseeing the construction of the project.   |
| <b>Fairfax County, Loudoun County</b>                         | Municipalities that have the primary public responsibility for value capture funding and financing through special districts.  |
| <b>Commonwealth of Virginia</b>                               | State entity that provides project grants and has enacted legislation allowing for special districts.  |
| <b>LEADER</b>   | One of the major private developer groups that advocated for the project and helped organize the Phase 1 TID.  |
| <b>U.S. Department of Transportation (USDOT)</b>              | The USDOT's Federal Transit Administration gave a New Starts grant to and provided a loan to Phase 2 of the project. USDOT also played a role in bringing parties together to overcome Phase 2 challenges. |

### VIII.6 Takeaways

The Dulles Metrorail, combining Phases 1 and 2, is one of the largest single U.S. transit rail projects and value capture efforts undertaken in the last two decades. As with all projects, there are several unique elements, but a number of this project's characteristics are also typical of large projects and broader

<sup>435</sup> Interview with individual who worked with the developer group in Phase 1 TID.

<sup>436</sup> Fairfax County, "Fund 40110: Dulles Rail Phase II Transportation Improvement District."

<sup>437</sup> Fairfax County, "Fund 40120: Dulles Rail Phase II Transportation Improvement District."

<sup>438</sup> Fairfax County Economic Development Authority.

<sup>439</sup> Dulles Corridor Metrorail Project, "What is Dulles Metrorail?"

value capture efforts. These include the following:

- **Growing Market.** The project was located in a growing corridor in a growing region. As Figure 30 shows, the Phase 1 TID's assessed value grew healthily over the last two decades. This relative prosperity motivated private landowners to push for the project and gave local and State policymakers and capital market investors confidence in the project.
- **Committed Public and Private Participants.** Numerous public and private participants were committed to the project for years, overcoming a variety of challenges including questions about alignment, planning delays, debates about costs of project elements (such as tunnels), interregional differences, and Federal funding limitations. This advocacy continued through economic downturns, which in retrospect appear to be small "blips" as shown in Figure 30, but at the time, this market weakness severely challenged a number of businesses that were advocating for the project.
- **Meaningful Planning.** The Tysons Corner Plan and similar planning throughout the corridor reflected the transportation goals of the Dulles Metrorail—fostering a denser, more pedestrian-oriented area. It also allowed developers to leverage their landholdings further, justifying their early investment in advocating for the project and setting up the TIDs.
- **Managing Value Capture Burden.** It will take a decade or more to truly assess the costs and benefits of the TIDs and their impact on land values. Based on the available anecdotal evidence, the increased assessments in Fairfax and Loudoun counties do not appear excessive and are reportedly not creating a competitive disadvantage for developers. Nevertheless, obtaining agreement on special assessments among smaller landholders was a challenge, given their relative indifference toward the project.
- **Phasing Flexibility.** The project and value capture effort were both broken down to make these efforts feasible. As such, both the project and the Fairfax County TIDs were split into two phases.

## ***IX U.S. Highway 63 in Missouri – Sales Tax District***

The U.S. Highway 63 project highlights the role of transportation corporations, an organizational structure used to improve the efficiency of delivery for some road projects.

### *IX.1 Project Overview*

For decades, residents of Kirksville in north central Missouri wanted to expand a 22-mile stretch of U.S. Highway 63 between Macon and Kirksville from two to four lanes. In 1992, the Highway 63 project as well as several others across the State were included in a Statewide Improvement Plan. However, in 1998, the Missouri Department of Transportation (MoDOT) deferred many of these planned projects, including Highway 63, until 2020 or later due to funding constraints.<sup>440 441</sup>

Kirksville citizens sought to move the project forward. The Kirksville Area Chamber of Commerce met with leaders from MoDOT and the Missouri Highway and Transportation Commission, forming a Highway 63 Taskforce. The Missouri Highway and Transportation Commission was willing to pursue the project if local sources of funding could be found. In 1999, with the cooperation of MoDOT, the Missouri Highway and Transportation Commission, the citizens of Adair and Macon Counties, and other interested parties, the Highway 63 Transportation Corporation was created as a vehicle to help mobilize funding for and speed implementation of the project.<sup>442</sup>

Once established, the transportation corporation issued a request for proposals, to which more than 10 engineering and construction firms responded. The winning bid was developed by Koch Performance Roads, Inc. In November of 2001, the transportation corporation presented the proposal along with a pledge that it would seek a one-half percent increase in sales tax to provide up to 30 percent of the project's total cost to the Missouri Highway and Transportation Commission, which subsequently endorsed the plan.<sup>443</sup> In April 2002, the Kirksville City Council held a referendum on whether to increase the sales tax by one-half percent for 10 years to help fund the highway expansion. The ballot initiative was overwhelmingly successful, receiving 78.9 percent of the vote.<sup>444</sup>

On May 3, 2003, more than 600 residents brought shovels to the groundbreaking site, kicking off the construction of their new highway.<sup>445</sup> The ribbon-cutting ceremony took place at four locations along the

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<sup>440</sup> "The Highway 63 Transportation Corporation," Florida Council for Public-Private Partnerships (FCP3), 2004, <https://www.fcp3.org/case-studies/transportation-infrastructure/the-highway-63-transportation-corporation/>.

<sup>441</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>442</sup> FCP3, "The Highway 63 Transportation Corporation."

<sup>443</sup> FCP3, "The Highway 63 Transportation Corporation."

<sup>444</sup> Kristine Williams, *Alternative Funding Strategies for Improving Transportation Facilities: A Review of Public Private Partnerships and Regulatory Methods*, prepared by the Center for Urban Transportation Research (CUTR) for the North Carolina Department of Transportation, December 2006, <https://www.cutr.usf.edu/oldpubs/Fairshare%20Report.pdf>.

<sup>445</sup> FCP3, "The Highway 63 Transportation Corporation."

highway—Macon, Atlanta, La Plata and Kirksville—and the new lanes opened to the public in October 2005, signaling on-time completion.<sup>446</sup>

## *IX.2 Regulatory Considerations*

### ***The Legal Framework***

The legal framework for the creation of a transportation corporation was in place well before the start of this project. The 1990 Missouri Transportation Corporation Act allowed localities to form non-profit quasi-governmental agencies called “transportation corporations” to develop and oversee transportation projects. After the Highway 63 Taskforce recommended that the rights granted in the legislation be exercised, the Highway 63 Transportation Corporation was established in April 2000. The corporation’s members included jurisdictions that would benefit from the project, including the Kirksville Area Chamber of Commerce; the city of Kirksville; Adair, Macon, and Schuyler counties; and the cities of Macon, Atlanta, and La Plata.<sup>447</sup> The Highway 63 Transportation Corporation would continue to operate until all funds from the sales tax had been collected, expended, and accounted for; all debts paid; and its business finalized.<sup>448</sup>

## *IX.3 Market Considerations*

The key market consideration was the impact of market conditions on expected sales tax revenues. Since the sales tax revenues were used to back debt for the project, a financial feasibility study conducted early in the project development process forecasted the adequacy of sales tax revenues.<sup>449</sup> If sales taxes were not sufficient, the corporation had access to some State grants. So far, sales tax receipts reached their targets in every year of the project.

## *IX.4 Funding Plan*

Project costs were \$37.4 million. Roughly 30 percent of the project cost was covered by sales tax revenues of approximately \$11.5 million, which were used to meet debt obligations. The remaining funding was provided by the Missouri Highway and Transportation Commission. The sales tax revenues were collected by the city of Kirksville and paid through the Highway 63 Transportation Corporation, giving taxpayers confidence that the funds were only dedicated to the project. Sales tax revenues began coming in before construction. The duration of the sales tax was 10 years, ending in 2013.<sup>450</sup>

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<sup>446</sup> FCP3, “The Highway 63 Transportation Corporation.”

<sup>447</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>448</sup> “Highway 63 Transportation Corporation,” Truman State University Pickler Memorial Library Archives, <http://library.truman.edu/manuscripts/H3-Hiway%2063.asp>.

<sup>449</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

<sup>450</sup> Vadali, *Using the Economic Value Created by Transportation to Fund Transportation*.

### IX.5 Coordination and Partnership

Successful local partnerships were critical in allowing this project to be implemented effectively. Following is a list of the project partners:

- Kirksville residents and city of Kirksville
- Highway 63 Transportation Corporation
- Missouri Highway and Transportation Commission
- MoDOT
- Koch Performance Roads, Inc. (design-build-maintain agreement for 15 years)

#### Kirksville Residents

One of the key elements that helped make this project successful was the willingness of Kirksville residents to move it forward. Voters approved the half-cent sales tax increase by an overwhelming 78.9 percent majority, highlighting the strength of local support for this project.

#### Highway 63 Transportation Corporation

The formation of the Highway 63 Transportation Corporation was one of the elements that allowed this project to ultimately come to fruition. Members of the general public formed a non-profit corporation that served as a quasi-governmental agency, partnering with and sharing roles with MoDOT and contracting services with a private firm. The Highway 63 Transportation Corporation was unusual in that it assembled resources, sped up project management, and allowed each partner to focus on its area of responsibility.<sup>451</sup> The transportation corporation was not a funding tool *per se* but a technique to accelerate the project timetable by overseeing and promoting the project and helping secure project funding.

### IX.6 Takeaways

- **Local support and willingness to pay can drive challenging projects forward.** This case illustrates the importance of local support to move a sales-tax funded project forward. Residents continued to fight for the project even when the State DOT had deferred it; voters approved the sales tax district with an overwhelming majority.
- **Alternative governance structures can force efficiency.** The case also illustrates how the creation of a quasi-governmental entity, the transportation corporation, can bring project resources together, help to establish a sales tax district, and help maintain the momentum for successful implementation.

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<sup>451</sup> FCP3, "The Highway 63 Transportation Corporation."

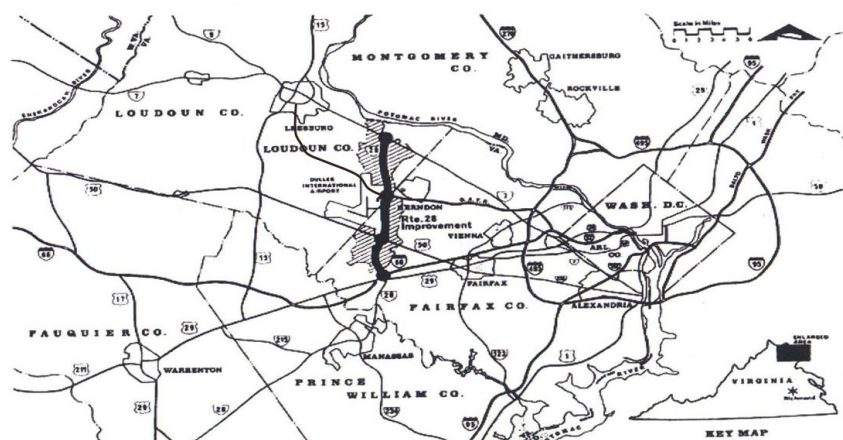
## X Virginia Route 28 – Special Tax District

The Virginia Route 28 project illustrates how special tax districts can be used together with bond financing to fund highway construction.

### X.1 Project Overview

The Virginia Route 28 special tax district financing improvements are the earliest—and to date only—example of value capture for Virginia roads. The special assessments were used to finance corridor improvements almost 30 years ago in two major phases.<sup>452</sup>

State Route 28 is a primary State highway that traverses the counties of Loudoun, Fairfax, Prince William, and Fauquier in Virginia. It is a major artery through Northern Virginia. Figure 31 shows the location of the corridor in the DC Metro area.



**Figure 31. Location of Route 28 in the DC Metro Area**

Source: Virginia Department of Transportation

The Dulles Corridor is the area along the 14-mile-long Dulles Toll Road between Washington Dulles International Airport and the Washington, DC, region's Capital Beltway (I-495). It is one of the fastest-growing commercial districts in the United States. It is home to dozens of national and regional offices of defense contractors, information technology companies, consulting firms, media conglomerates,

<sup>452</sup> Laura Farmer, *Value Capture: Route 28 Transportation Improvement District*, Virginia Department of Transportation, 2015.



accounting firms, communications companies, and other technology-related industries. Like much of Northern Virginia, the Dulles Corridor suffers from severe traffic congestion.

In the late 1980s, Route 28 was a two-lane country road that intersected the Dulles Corridor just east of Dulles International Airport. As a result of the region's growth, Route 28 had to be upgraded in order to handle the resulting traffic volumes. In 1985, VDOT hired an architecture and engineering consulting firm to prepare the design plans for widening Route 28. However, Virginia DOT (VDOT) lacked the resources to construct the project.<sup>453</sup>

In 1987, Virginia authorized the creation of special tax districts to finance transportation improvements. The following year, Fairfax and Loudoun counties formed the first transportation improvement district (TID) in the Commonwealth, following a petition of the landowners representing 51 percent of the land zoned or used for commercial or industrial purposes in the proposed district, as is required by statute.

As part of the agreement forming the district, costs for the Route 28 expansion were to be split 75/25 between the TID and VDOT. Furthermore, a 20-cent surcharge per each \$100 in commercial and industrial property value within the district was applied. The surcharge financed bonds to pay for improvements to Route 28. From 1989 to 1991, 14 miles of Route 28 were widened from two lanes to six, and interchanges were built at Route 50, Route 7, and the Dulles Toll Road. Initially, the debt service was supported by State construction allocations for the Northern Virginia District in the Six-Year Improvement Plan.<sup>454</sup>

## *X.2 Regulatory Considerations*

The primary regulatory issue was that implementing the value capture solution required action by the Virginia General Assembly.

The original authorization was passed by the legislature in 1988, and the same statutory authority was used in 2012 to authorize funding for an expansion project, based on the same revenue base.<sup>455</sup>

## *X.3 Market Considerations*

The success of the project depended heavily on whether real estate market values would materialize to the extent required to support the new financing.

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<sup>453</sup> "Project Profile: Route 28 Corridor Improvements," Federal Highway Administration Center for Innovative Finance Support, [https://www.fnwa.dot.gov/ipd/project\\_profiles/va\\_route28.aspx](https://www.fnwa.dot.gov/ipd/project_profiles/va_route28.aspx).

<sup>454</sup> Farmer, "Value Capture: Route 28."

<sup>455</sup> "Code of Virginia: Chapter 20. Local Transportation Districts," \$50,620,000 Commonwealth of Virginia Transportation Contract Revenue Refunding Bonds Series 2012, Commonwealth Transportation Board (Route 28 Project), 2012, Virginia Legislative Information System, <https://law.lis.virginia.gov/vacode/title33.2/chapter20/>.

Initially, the tax district had some issues when the property market weakened in 1988 and 1989 and tax district revenue was insufficient to pay debt service. The rebound of real estate values in 1992 allowed for the refinancing of debt to take advantage of lower interest rates. Annual revenues have exceeded annual debt service since 2001, allowing the tax district to move forward with additional design and construction.<sup>456</sup>

#### *X.4 Funding Plan*

The capital costs were as follows:

- Phase 1 – \$138.5 million
- Phase 2 – \$349 million

The uses were as follows:<sup>457</sup>

- Phase 1 – \$138.5 million Route 28 TID (1988), funded with:
  - Commonwealth Transportation Board (CTB) bonds (\$138.5 million)
- Phase 2 Part 1 – \$201.7 million Route 28 TID (2003-2004), funded with:
  - CTB bonds – \$75.4 million
  - Phase 1 balance – \$36.3 million
  - Fairfax County Economic Development Authority – \$90 million
- Phase 2 Part 2 - \$119.2 million (2007-2009), funded with:
  - Improvement District Revenues – \$93.0 million
  - CTB bonds – \$23.96 million
  - State Transportation Opportunity Fund grant – \$5 million
- Phase 2 Widening – \$17 million

The tax district revenues supported the sale of tax-exempt bonds that were backed by the moral obligation of both Fairfax and Loudoun counties.

#### *X.5 Coordination and Partnership*

The authorizing legislation for the special assessment district was structured in such a way that it could not go into effect without a petition from 51 percent of the land area owners. As such, the project required extensive coordination and partnership between VDOT and the landowners along the corridor.

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<sup>456</sup> Farmer, "Value Capture: Route 28."

<sup>457</sup> Farmer, "Value Capture: Route 28."

### X.6 Takeaways

- **Value capture techniques should align interests without giving outsized power to any one individual.** The legislation authorizing the use of the special assessment district can only be activated with the consent of 51 percent of landowners, requiring alignment of interest between public and private parties.<sup>458</sup>
- **Need for backstop.** Due to a real estate downturn, real estate-related revenues were not adequate to pay for debt service during the early years of the project. Instead, it had to rely on the backstop and funding support from public agencies, underscoring the need for support from other highly creditworthy sources for some projects.

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<sup>458</sup> Farmer, "Value Capture: Route 28."

## GLOSSARY

**Ad valorem** – An ad valorem tax is “a tax that is calculated according to value of property, based on an assigned valuation of a piece of real estate or personal property.” *Source:* Legal Information Institute, [https://www.law.cornell.edu/wex/ad\\_valorem\\_tax](https://www.law.cornell.edu/wex/ad_valorem_tax)

**Blight** – An area that is distressed based on economic and other indicators. The exact definition varies by State.

**Brownfield** – A brownfield project refers to an investment (an upgrade, modification, etc.) on existing infrastructure facilities.

**Greenfield** – A greenfield project refers to a new infrastructure investment. Typically, a greenfield investment is made on unused land, with no constraints from prior buildings or facilities.

**Ring fence** – Protect specific funds from being used for purposes other than for what they were intended.

**Pay-as-you-go** – Using available revenues to pay for a project.

**Rational nexus** – The “rational nexus” test requires that the local government demonstrate a reasonable connection between the need for the additional infrastructure investment, the cost of that additional infrastructure, and the benefit that accrues as a result of the additional infrastructure. The “rough proportionality” test requires demonstrating that the exaction or fee charged is proportional to the impact of the proposed development.