

# CITY OF BASTROP, TEXAS LAND USE ASSUMPTIONS AND CAPITAL IMPROVEMENTS PLAN FOR THE 2023 TRANSPORTATION IMPACT FEE STUDY



May  
2023

Prepared for the City of Bastrop

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## 1. INTRODUCTION

Chapter 395 of the Texas Local Government Code describes the procedure Texas cities must follow in order to create and implement impact fees. Senate Bill 243 (SB 243) amended Chapter 395 in September 2001 to define an impact fee as “a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development.”

The City of Bastrop has retained Kimley-Horn to provide professional transportation engineering services for the 2023 Transportation Impact Fee (TIF) Study. The final impact fee report will include details of the Transportation Impact Fee calculation methodology in accordance with Chapter 395, the applicable Land Use Assumptions, development of the TIF Capital Improvements Plan (CIP), and the Land Use Vehicle-Mile Equivalency Table.

This preliminary report introduces and references two of the basic inputs to the Transportation Impact Fee:

1. **Land Use Assumptions**
2. **Capital Improvement Plan**

Information from the Land Use Assumptions and this Capital Improvement Plan are used extensively throughout the remainder of the report.

The finalized impact fee report, to be submitted at a later date, will consist of a detailed discussion of the methodology for the computation of impact fees, to be broken into three components:

1. **Methodology for Transportation Impact Fees**
2. **Transportation Impact Fee Calculation**
3. **Plan for Awarding the Transportation Impact Fee Credit**

## 2. TRANSPORTATION IMPACT FEE CALCULATION INPUTS

### A. LAND USE ASSUMPTIONS

#### Purpose

Impact Fees are a mechanism for funding the public infrastructure necessitated by growth. In the most basic terms, impact fees are meant to recover the incremental cost of the impact of each new unit of development growth creating new infrastructure needs. In order to assess an impact fee, Land Use Assumptions must be developed to provide the basis for residential and employment growth projections within a municipality. As defined by Chapter 395 of the Texas Local Government Code, these assumptions include a description of changes in land uses, densities, and development in the service area. The land use assumptions are then used in determining the need and timing of transportation improvements to serve future development.

This section documents the process used to develop the Land Use Assumptions for the City of Bastrop's Impact Fee Study. In accordance with Chapter 395 of the Texas Local Government Code, Transportation Impact fees must be calculated based on reasonable expectations of residential and employment growth within the next ten years (2023-2033). The following resources provided the information required to complete the Land Use Assumptions:

- Projected new developments
- Developments currently under construction
- Recently platted developments
- City of Bastrop Comprehensive Plan
- City of Bastrop Transportation Master Plan (Thoroughfare Plan)
- City of Bastrop Staff

#### Components of the Land Use Assumptions Section

The Land Use Assumptions include the following components:

1. **Impact Fee Study Service Areas** - Explanation of the divisions of Bastrop into service areas for Transportation Impact Fees.

2. **Land Use Assumptions Methodology** - An overview of the general methodology used to generate the land use assumptions.
3. **Ten-Year Growth Assumptions** - Walk-through of the growth projections for 2023-2033.

## Impact Fee Study Service Areas

### Service Area Definition

According to Chapter 395 of the Local Government Code, a Service Area refers to the area within the corporate boundaries or extraterritorial jurisdiction of the political subdivision to be served by the capital improvement or facilities specified in the Capital Improvement Plan. For roadway impact fees (called “transportation impact fees” in Bastrop), Service Areas are limited to the corporate boundaries of the City. Funds collected in the specific service areas must be spent in the service area collected. Chapter 395 specifies that “the service area is limited to an area within the corporate boundaries of the political subdivision and shall not exceed six (6) miles.” This resulted in the creation of two (2) service areas in the City of Bastrop.

### Transportation Impact Fee Service Areas

The geographic boundaries of the two (2) impact fee service areas for transportation facilities are shown in **Exhibit 1**. For roadway facilities, the service areas are limited to those areas within the current corporate limits. Therefore, areas within the extraterritorial jurisdiction (ETJ) are excluded from this study.

The Colorado River serves as the primary service area boundary, dividing the City into Service Area A to the west and Service Area B to the east, with the exception of an area within a bend in the Colorado River on the south side of the City to keep Service Area A contiguous. At locations where service area boundaries follow a thoroughfare facility, the proposed boundary is intended to follow the centerline of the roadway. In cases where a service area boundary follows the City Limits, only those portions of the facility within the City Limits area are included in the service area.



# Legend

## Service Areas

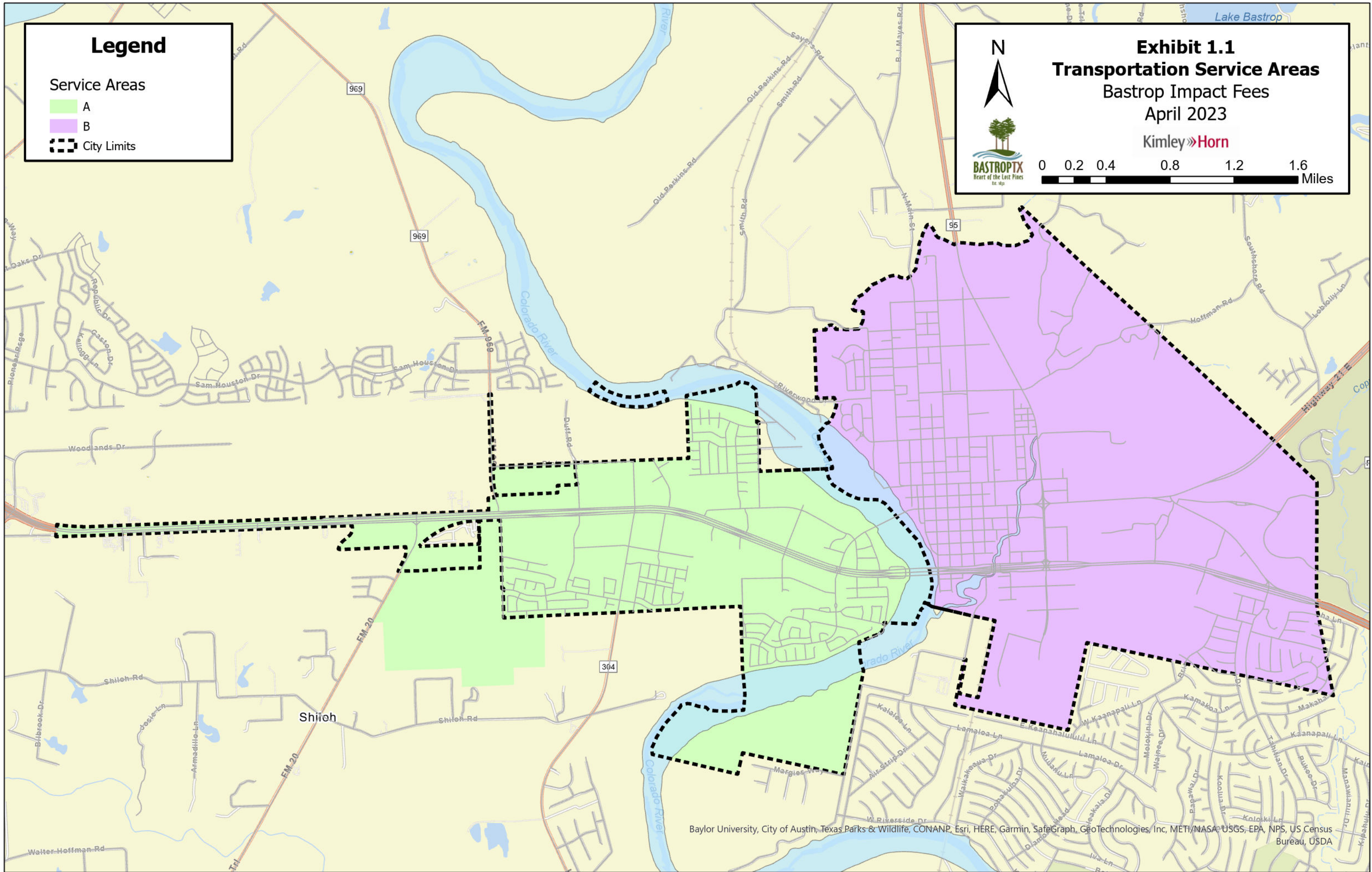
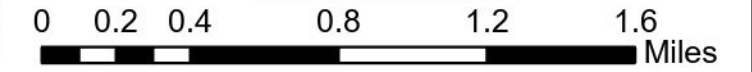
- A
- B
- City Limits



## Exhibit 1.1 Transportation Service Areas

Bastrop Impact Fees  
April 2023

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## Land Use Assumptions Methodology

The following factors were considered in developing the residential and employment projections:

- Character, type, density, location, and quantity of existing development;
- Growth trends and historical data;
- Location of vacant land;
- City of Bastrop Comprehensive Plan;
- City of Bastrop Transportation Master Plan (Thoroughfare Plan);
- Physical restrictions (i.e. flood plains); and
- Planned development data.

The residential and employment estimates were all compiled in accordance with the following categories:

**Residential Units** – Number of residential dwelling units, including single-family and multifamily

**Employment** – Square feet of building area based on three (3) different classifications. Each classification has unique trip making characteristics.

Basic - Land use activities that produce goods and services, including those that are exported outside the local economy (i.e. manufacturing, construction, transportation, wholesale, trade, warehousing, and other industrial uses)

Service - Land use activities which provide personal and professional services such as government and other professional offices

Retail - Land use activities which provide for the retail sale of goods that primarily serve households and whose location choice is oriented toward the household sector (i.e. grocery stores and restaurants)



As outlined above, the residential and employment land uses are broken down into the five broader categories of single-family, multifamily, basic, service, and retail land uses. These five categories are used in the development of the assumptions for impact fees. In the calculation of the specific Transportation Impact Fee, a more specific and expanded classification based on the Institute of Transportation Engineers (ITE) Trip Generation Manual will be utilized.

Growth projections for the next 10 years (2023-2033) for the City of Bastrop were established using the City's future land use and historical census data.

### Residential Development Neighborhoods

The City provided future land use data for known **single family** and **multifamily** developments that are currently planned for construction within the next ten years. For some developments, the data indicates the total number of undeveloped dwelling units. For those developments that didn't provide an indication of total dwelling units, the projected acreage of each site was used to calculate a unit estimate for each property.

The analysis assumes ratios of 4 dwelling units/acre for each unknown future single-family development and 20 units/acres for each unknown future multifamily development. The projected acreage for each unknown residential site was multiplied by the respective constant unit assumption (4 for single-family, 20 for multifamily) to determine an assumed number of dwelling units associated with the site.

Projections for new single-family and multifamily developments in the next ten years were determined by the City of Bastrop and can be found in **Table 1**.

### Commercial Developments

The City also provided future land use data for known commercial (non-residential) developments that are currently planned for construction within the next ten years. Each of these developments was categorized as a **basic**, **service**, or **retail** land use type, based on its respective projected trip characteristics.

The available existing plat data provides acreages for commercial developments at the parcel level; however, as mentioned previously, commercial developments are measured by square footage of building area. To determine the estimated building area for each development, a



floor area ratio (FAR) was applied to the square footage of each development based on its commercial classification. Each FAR was assigned based on standard planning principles and assumptions as well as by looking at average FAR of several sites that exist in the City for each land use type to calibrate the FAR used in the assumptions.

Projections for commercial developments in the next ten years were determined by the City of Bastrop and can be found in **Table 1**.

### 10-Year Growth Assumptions

**Table 1** summarizes the residential and employment growth projections by service area.

**Table 1. Land Use Assumptions Growth Projections (2023-2033)**

Service Area	Residential		Commercial		
	Single-Family	Multifamily	Basic	Service	Retail
	<i>Dwelling Units</i>		<i>Sq. Ft.</i>		
	<i>4 units/acre</i>	<i>20 units/acre</i>	<i>FAR 0.25</i>	<i>FAR 0.20</i>	
<b>SA A</b>	1,078	3,470	0	491,000	2,347,000
<b>SA B</b>	1,780	1,575	2,170,000	217,000	949,000
<b>Sub-total</b>	2,858	5,045	2,170,000	708,000	3,296,000
<b>Total</b>	<b>7,903</b>		<b>6,174,000</b>		

## B. CAPITAL IMPROVEMENT PLAN

The City has identified transportation projects needed to accommodate the projected growth within the City. These transportation projects include those that are fully funded by the City of Bastrop, as well as some roadway facilities maintained by the Texas Department of Transportation (TxDOT). TxDOT-maintained facilities are currently projected to be funded by both the City and TxDOT. All of these City-identified projects come together to form the **Transportation Impact Fees Capital Improvement Plan (CIP)**. The CIP includes State Highway and City facilities that provide capacity for non-local vehicular traffic, as well as intersection improvements.

The CIP for Transportation Impact Fees for the 2023 Impact Fee Study are listed in **Tables 2-3** and mapped in **Exhibits 2-3**. The table shows the length of each project as well as the facility's lane configuration and available right-of-way (listed under "Impact Fee Class"). The CIP was developed in conjunction with input from City staff and represents those projects that will be needed to accommodate the growth projected by the 2033 Land Use Assumptions for the Transportation Impact Fee Study.

**Table 2. Capital Improvement Plan for Transportation Impact Fees - Service Area A**

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area	
A	<i>Roadway Improvements</i>						
	A-1	4D (80)	Agnes (1)	Bear Hunter Drive to Hunter's Crossing	0.46	100%	
	A-2	4D (80)	Agnes (2)	Hospital Drive to Schaefer Blvd	0.35	100%	
	A-3	4D (80)	Bear Hunter Drive (1)	Bear Hunter Drive (existing) to 1,000' N of Shiloh Rd	0.42	100%	
	A-4	2U (50)	Blakey Ln (1)	Edward Burleson Ln to 1,830' E of Edward Burleson Ln	0.35	100%	
	A-5	2U (50)	Blakey Ln (2)	City Limits to Old Austin Highway	0.43	100%	
	A-6	3U (56)	Greenleaf Fisk Dr	Bass Drive to Schaefer Blvd	0.57	100%	
	A-7	4D (80)	Hasler Blvd (1)	Old Austin Hwy to Colorado River	0.26	100%	
	A-8	2U (50)	Marie St	Schaefer Blvd to Hasler Blvd	0.25	100%	
	A-9	3U (56)	Orchard Pkwy	SH 71 to Hunters Point Drive	0.42	100%	
	A-10	4D (80)	Agnes (3)	Schaefer Blvd to Childers Drive	0.60	100%	
	A-11	4D (80)	Edward Burleson	Blakey to SH 21 EBFR	0.32	100%	
	A-12	4D (110)	FM 969 (1)	City Limits to Blakey Ln	0.46	100%	
	A-13	4D (110)	FM 969 (2)	Blakey Ln to State Highway 21	0.28	100%	
	A-14	4D (80)	Hasler Blvd (2)	Old Austin Hwy to SH 21	0.25	100%	
	A-15	4D (80)	Home Depot Way	Hunter's Crossing to SH 304	0.34	100%	
	A-16	4D (80)	Agnes (4)	SH 304 to Hospital Drive	0.41	100%	
	A-17	4D (80)	Bear Hunter Drive (2)	State Highway 21 to Bear Hunter Drive (existing)	0.63	100%	
	A-18	4D (110)	SH 304	SH 21 EBFR to Hunters Point Dr	0.55	100%	
	<i>Intersection Improvements</i>						
	I-1	-	-	Highway 71 & FM 20	Traffic Signal	-	100%
	I-2	-	-	FM 969 / Bear Hunter & SH 21	Overpass	-	100%
	I-3	-	-	Edward Burleson Ln / SH 304 & SH 21	Intersection Improvements	-	100%
	I-4	-	-	Hasler Blvd & SH 21	Intersection Improvements	-	100%
	I-5	-	-	Loop 150 / Childers Dr & SH 21	Intersection Improvements	-	100%
I-6	-	-	Agnes & Hasler	Roundabout	-	100%	
I-7	-	-	Old Austin & Loop 150	Roundabout	-	100%	

**Table 3. Capital Improvement Plan for Transportation Impact Fees - Service Area B**

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area
B	<i>Roadway Improvements</i>					
	B-1	2U (50)	Carter St	Mesquite St to Magnolia St	0.17	100%
	B-2	2U (50)	Chambers St	Cedar St to Farm St	0.29	100%
	B-3	2U (50)	Future Collector A	Pitt St to Future Collector B	0.22	100%
	B-4	2U (50)	Future Collector B	Lost Pines Ave to SH 71	0.19	100%
	B-5	2U (50)	Future Collector C	Technology Drive extension to City Limits	0.17	100%
	B-6	2U (50)	Future Collector D	Jackson St extension to 420' E of Jackson St extension	0.08	100%
	B-7	4D (80)	Hasler Blvd (3)	Colorado River to Willow St	0.29	100%
	B-8	4D (80)	Jackson St (1)	Jackson St (existing) to 1,260' S of Jackson St	0.24	100%
	B-9	2U (50)	Jasper St (1)	Jackson St to 930' E of Jackson St	0.18	100%
	B-10	2U (50)	Jasper St (2)	930' E of Jackson St to Hidden Hollow Ct	0.51	100%
	B-11	2U (50)	Majestic Pine Dr	Majestic Pine Dr (existing) to Mauna Loa Ln	0.10	100%
	B-12	2U (50)	Mauna Loa Ln (1)	Pine Lodge Dr to Briar Forest Dr	0.95	100%
	B-13	3U (56)	Mesquite St (1)	800' W of Wilson St to Wilson St	0.15	100%
	B-14	3U (56)	Mesquite St (2)	SH 95 to Piney Ridge Dr	0.41	100%
	B-15	2U (50)	Pitt St	SH 71 to Jasper St	0.10	100%
	B-16	3U (56)	South Street (1)	Lovers Lane to South St (existing)	0.33	100%
	B-17	3U (56)	South Street (2)	1,200' E of Jackson St to Mauna Loa Ln	0.21	100%
	B-18	2U (50)	Technology Drive (1)	Mill St to Business Park Dr	0.14	100%
	B-19	2U (50)	Technology Drive (2)	Technology Drive (existing) to City Limits	0.46	100%
	B-20	2U (50)	Walnut Street	Martin Luther King Dr to SH 21	0.22	100%
	B-21	4D (80)	Jackson St (2)	SH 21 to South St	0.25	100%
	B-22	3U (56)	Lovers Ln	City Limits to College St	0.29	100%
	B-23	2U (50)	Mauna Loa Ln (2)	Briar Forest Dr to Tahitian Dr	0.23	100%
	B-24	3U (56)	Mesquite St (3)	Wilson St to SH 95	0.52	100%
	B-25	4D (110)	SH 95 (1)	Mesquite St to 700' S of Mesquite St	0.13	100%
	B-26	4D (110)	SH 95 (2)	700' S of Mesquite St to Hawthorne St	0.51	100%
	B-27	4D (110)	SH 95 (3)	Hawthorne St to Cedar St	0.30	100%
	B-28	4D (110)	SH 95 (4)	Cedar St to Spring St	0.36	100%
	B-29	4D (110)	SH 95 (5)	Farm St to Chestnut St/SH 21	0.16	100%
	B-30	3U (56)	South Street (3)	650' W of Jackson St to 1,200' E of Jackson St	0.32	100%
	B-31	4D (110)	SH 21 (1)	Chestnut St to Walnut St	0.30	100%
	B-32	4D (110)	SH 21 (2)	Walnut St to SH 21 WBFR	0.43	100%
B-33	4D (110)	SH 95 (6)	SH 21 WBFR to SH 21 EBFR	0.11	100%	
<i>Intersection Improvements</i>						
I-8	-		Mesquite St & SH 95	Traffic Signal	-	100%
I-9	-		SH 95 & Cedar St	Traffic Signal	-	100%



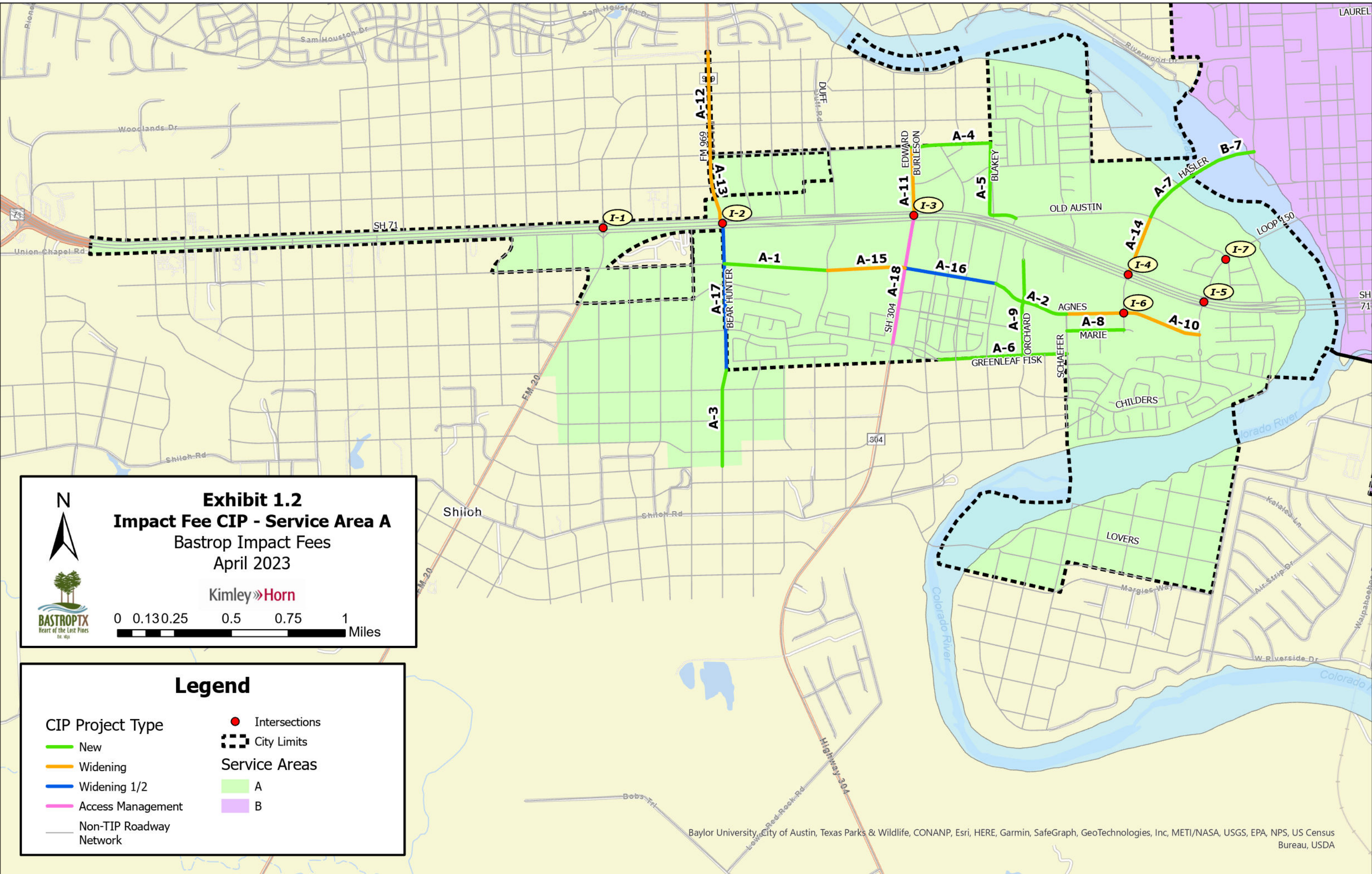
**Exhibit 1.2**  
**Impact Fee CIP - Service Area A**  
 Bastrop Impact Fees  
 April 2023

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0 0.13 0.25 0.5 0.75 1 Miles

**Legend**

CIP Project Type	Intersections
New	City Limits
Widening	<b>Service Areas</b>
Widening 1/2	A
Access Management	B
Non-TIP Roadway Network	

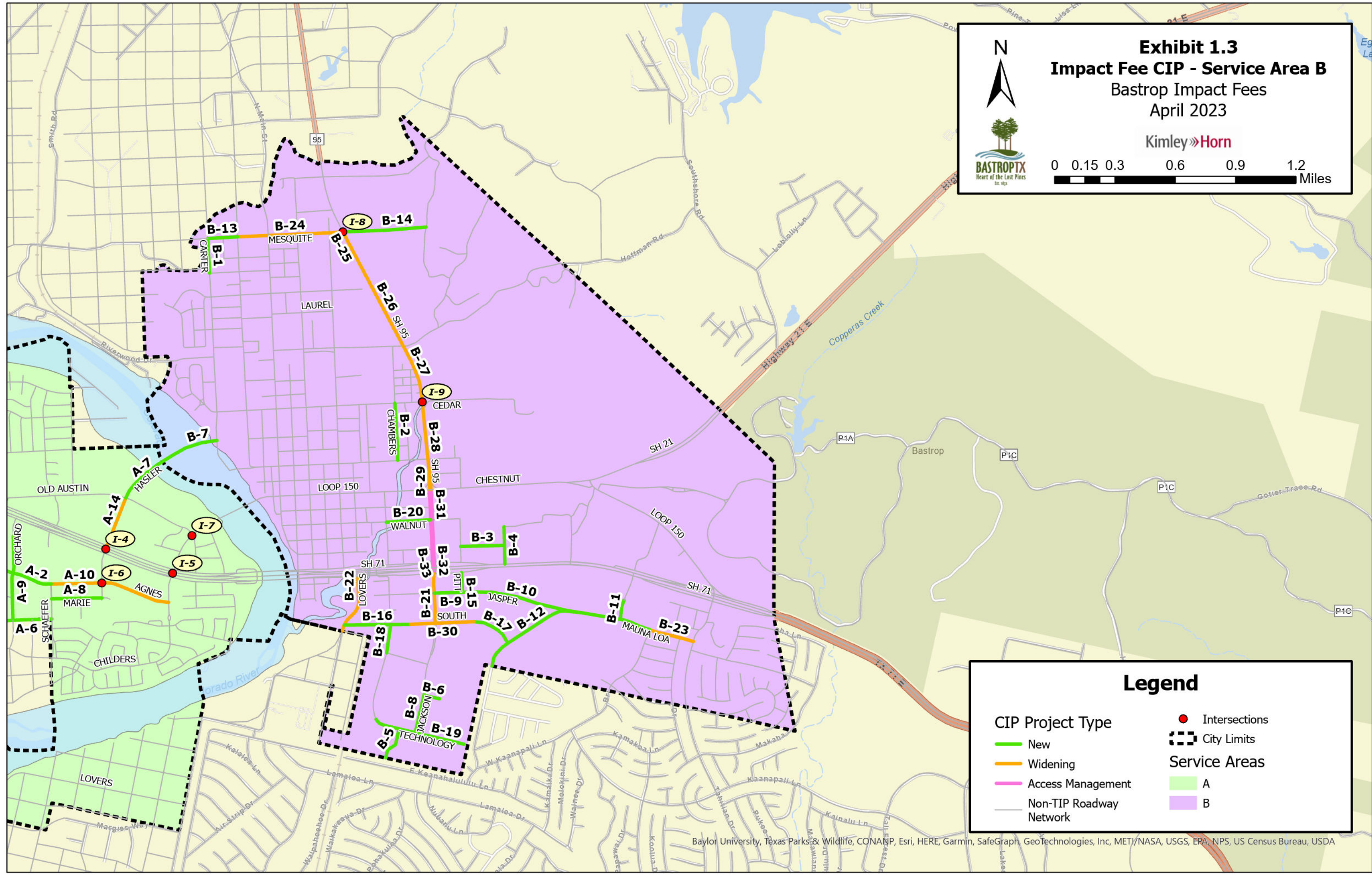
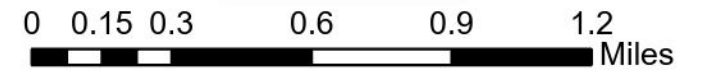




**Exhibit 1.3**  
**Impact Fee CIP - Service Area B**  
 Bastrop Impact Fees  
 April 2023



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**Legend**

New	Intersections
Widening	City Limits
Access Management	<b>Service Areas</b>
Non-TIP Roadway Network	A
	B

Baylor University, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA