



Fiscal Year 2017-2018

Long-Range Capital Improvement Program Strategic Plan

3/31/2017 Draft





City of Austin, Texas

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Part I

Chapter 1

Introduction to the Long-Range CIP Strategic Plan

The Capital Improvement Program (CIP) is all around you. You may not think about it every day, but it's the sidewalk you walk on, the park or library at which you meet your friends, even the pipes that carry water that comes out of your faucet. Assets such as these are operated and managed by the City of Austin, and they are part of a larger system of infrastructure that affects each and every person's quality of life.

The City is responsible for ensuring adequate infrastructure is available to citizens throughout the City. Through the Capital Improvement Program, the City makes sure that the infrastructure it owns operates safely, effectively, and at a level of service that the public expects.

The Long-Range Capital Improvement Program Strategic Plan is a data-driven approach to planning for how the City's future capital improvements support the way Austin functions and grows in the coming years, as articulated in the Imagine Austin Comprehensive Plan as well as related plans and priorities that guide City capital investment. The Long-Range CIP Strategic Plan:

1. Articulates the City's capital improvement needs during the next 10 years to prepare for future funding and leveraging opportunities.
2. Links the Capital Improvement Program to City policies and planning priorities, including the Imagine Austin Comprehensive Plan and related City plans.
3. Facilitates infrastructure planning and coordination efforts between City departments and private development partners as well as with other governmental entities that manage infrastructure, including Travis County, area school districts, Capital Metro, and the State of Texas.
4. Improves the City's communication and transparency about citywide infrastructure improvement needs to Austin citizens and stakeholders.
5. Provides the basis for the City of Austin Planning Commission's formulation of recommendations on priority capital improvements that implement the City's comprehensive plan, in fulfillment of their responsibility per City Charter.

In the Long-Range CIP Strategic Plan

The Long-Range CIP Strategic Plan is divided into three parts. They are:

PART I: Introduction to the CIP

The introduction provides an explanation of the Long-Range CIP Strategic Plan and CIP planning process (Chapter 1), the context for identifying future capital needs (Chapter 2), the key drivers for capital investment (Chapter 3) and funding and partnerships (Chapter 4).

PART II: Conclusions and Strategies

This section includes summary analysis and recommended strategies based upon the extensive data compiled in the other sections of the Long-Range CIP Strategic Plan and the guiding goals and objectives related to implementation of Imagine Austin through capital investment.

PART III: Detailed Information and Analyses

The following chapters provide information on the City's future CIP needs and the detailed analyses that informed the overall conclusions and strategies for CIP investment in Part II.

Chapter 6: Comprehensive Infrastructure Assessment

To gain a better understanding of the collective state of Austin's infrastructure condition, the Capital Planning Office in 2014 coordinated the development of a Comprehensive Infrastructure Assessment. The Comprehensive Infrastructure Assessment compiles data on the City's infrastructure inventory as well as infrastructure condition, age, expected useful life, and the levels of service the various infrastructure types are expected to meet. This information is used to inform departments' identification of capital renewal needs in the Rolling Needs Assessment and informs long-range planning for future capital investments in Austin's infrastructure.

Chapter 7: Strategic Investment Analysis

The Strategic Investment Analysis is an analysis of the geographic alignment of future capital investment needs with City plans, policies, and anticipated growth patterns. The Strategic Investment Analysis is a starting point for identifying areas where planned capital investments identified in the Rolling Needs Assessment can be designed and coordinated to address multiple City priorities. The time period before funding is identified provides an ideal opportunity to coordinate across multiple departments and with other partners so that the City can plan projects that meet multiple needs and maximize community outcomes. The analysis connects the City's plans, particularly Imagine Austin, with capital improvements, and ensures that capital projects and programs play a critical role in realizing community goals and priorities.

Chapter 8: Rolling Needs Assessment

The Rolling Needs Assessment identifies the City of Austin's anticipated future capital needs over a period of 10 years or longer and provides CIP departments an opportunity to plan programs and projects for the long-term and coordinate efforts when feasible. The Rolling Needs Assessment

Five Steps of Imagine Austin Implementation

City Council adopted the Imagine Austin Comprehensive Plan in June 2012. Imagine Austin presents a long-term vision for the city that reflects the community's values and aspirations. Implementation of Imagine Austin is outlined by a five-point program, which includes "Capital Investment." The Long-Range CIP Strategic Plan was created soon after adoption of Imagine Austin, enhancing the City's ability to implement the community's vision with the help of the Capital Improvement Program.

1. Community Engagement
2. Regulations
3. Capital Investment
4. Organizational Alignment
5. Partnerships

contains details on the ongoing capital improvement programs that maintain the condition of existing infrastructure and ensure infrastructure meets increased service demands. It also contains potential strategic capital investments that have been identified through the City's planning efforts, including Imagine Austin; City Council policy direction; and regional coordination. Some of these future needs have an identified, recurring funding source. In other cases, additional funding will be needed.

Strategic Capital Investments

A strategic capital investment is an innovative approach to better provide services to the community, respond to specific City Council-identified capital investment priorities, or advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City



Top: Erosion along Shoal Creek. Bottom: A simulation of Shoal Creek after improvements to the streambank.

Capital Improvement Planning Cycle

The Long-Range CIP Strategic Plan is part of a larger Capital Improvement Program planning cycle—a continuous process of planning, funding and implementation that generally includes six phases, described in this section. The cycle is a multi-year process; however, it is anchored by points in which a snapshot of the City’s Capital Improvement Program is made available to the public and decision-makers annually. These snapshots are the publication of the Long-Range CIP Strategic Plan, the Five-Year CIP Plan, and the Capital Budget. The general cycle is illustrated in Figure 1.1.

Figure 1.1



Capital Needs Identification and Planning

Departments lead the effort to identify future capital needs by taking into account priorities related to urgent needs, capital renewal, service demands, City Council policy and planning documents. Potential capital improvement projects are prioritized and filtered to develop feasible projects that meet community needs.

Long-Range CIP Strategic Plan

The Long-Range CIP Strategic Plan communicates the City's priority future capital improvement needs. The Long-Range CIP Strategic Plan is a bridge between the Capital Improvement Program and recommendations expressed in long-range plans such as Imagine Austin, infrastructure master plans, and small area plans.

Identify Funding

Once departments identify and prioritize capital needs, they seek available funding sources, such as ongoing capital improvement programs that have an existing funding source, or other opportunities like grants, partnerships, or possible future bond proposals. After the departments have identified at least partial funding for potential capital projects, they submit the projects to the Budget Office to be included in the Five-Year CIP Plan.

Five-Year CIP Plan

The Five-Year CIP Plan describes the City's projected major capital improvements over the next five years based on planned revenues, appropriations, and spending. The Five-Year CIP Plan is produced by the Budget Office and functions as a financial planning and budgeting tool that guides the annual development of the Capital Budget.

Annual Capital Budget

City Council typically approves the Capital Budget each September as part of the overall fiscal year budget process. The Capital Budget funds major improvements and expansions to City facilities and infrastructure. The annual Capital Budget also provides the needed additional appropriations to continue existing capital projects or begin new projects each year.

Implement Projects & Programs

The City is continually planning, designing and constructing capital improvement projects for the benefit of Austin citizens. Some projects may require years of planning and construction, with incremental Capital Budget appropriations to fund the project or program over many years. In other cases, projects may be completed in a shorter timeframe. The Public Works Department is the City's primary project delivery entity and is responsible for capital project development, management, and implementation through construction.

Chapter 2 Setting the Context

Image Courtesy Michael Knox

Infrastructure is important to a city's quality of life and economy. The City of Austin's 2015 Community Survey, conducted by ETC Institute, provides an assessment of resident satisfaction with the delivery of City services. This provides important context for future infrastructure investment decisions. Survey respondents identified traffic flow as their top priority for improvement. Only 39% expressed satisfaction with overall maintenance of city streets and sidewalks. However, large percentages expressed satisfaction with the quality of drinking water (78%), overall quality of public safety services (76%), quality of parks and recreation services (74%), quality of libraries (73%), and quality of wastewater services (72%). Infrastructure is a critical component in delivering all of these services. It is also a critical component in planning for growth, an area in which a majority of survey respondents (55%) expressed dissatisfaction.

The Long-Range CIP Strategic Plan focuses on long-term planning and strategies for future infrastructure investment. The strategies and capital needs included in this document are affected by past investments (made by the City, other public entities, and the private sector meeting City requirements), planned projects in the Five-Year CIP Plan and Capital Budget, and major City policy initiatives. In future years, capital improvement needs may shift as community and policy priorities change and as private development or other public projects continue to change Austin's built environment.

Recent Infrastructure Investments

Through the Capital Improvement Program, the City has created infrastructure to support population growth and changing community needs while also preserving Austin's natural spaces and responding to City Council policy. The allocation of bond program funds reflects the priorities of Austin residents. Not only does the community help in developing proposed referendums but the voting public must also approve them. Since 1998, Austin voters have approved more than \$1.5 billion in general obligation bonds during six bond elections. Of those approved funds, about \$640 million has been for transportation and mobility projects and programs. Nearly \$240 million has gone toward parks and recreation projects and programs, and \$200 million has gone to open space and watershed protection.

Just as past investment reflects community priorities, so too does the change in the composition of bond programs over the past few decades. Environmental preservation has long been among the top concerns for Austin residents, and in turn voters have approved bond funding for open space and water quality protection that has contributed to the preservation of 27,500 acres, much of it is over the aquifer recharge zones. The 2006 Bond Program dedicated funding to cultural facilities, such as \$90 million for a New Central Library, which will be complete in 2016, as well as the construction of the Asian American Resource Center, the African American Cultural and Heritage Facility, and the Zachary Scott Topfer Theatre. The 2012 Bond Program invests largely in the rehabilitation or

replacement of existing infrastructure including funding for transportation and mobility, park and trail improvements, and library improvements.

In addition to the voter-approved bond programs, the City has funded major projects through other types of debt as well as revenue generated by City-owned utilities. In 2014, a new water treatment plant in Northwest Austin started pumping 50 million gallons of water daily to serve Austin's growing population and to allow Austin Water to rehabilitate the City's two older water treatment facilities without disrupting service. In the future, the new water treatment plant will have the capacity to treat 300 million gallons of water daily. Meanwhile, Austin-Bergstrom International Airport has been expanding to accommodate record-setting passenger traffic with a 55,000-square-foot expansion of the main terminal, construction of a new car rental facility, development of the Cell Phone Parking Lot, and improved campus connectivity.

To support economic development efforts while addressing significant flooding concerns downtown, the Capital Improvement Program also includes construction of major projects such as Waller Creek Tunnel and associated inlets, which removes more than 28 acres of downtown Austin from the floodplain and creates an environment suitable for redevelopment.

The vision of the City and its partners, the Waller

Creek Conservancy and Travis County, is to create a walkable creek corridor with community and performance spaces, parks, hotels, restaurants, and retail. Voters also approved 2012 Bond Program funding for improvements to public parks along the creek corridor in anticipation of greater future use. On the west side of Austin's downtown, the City and its partners are redeveloping the Seaholm District, once the location of a power plant and other utility infrastructure, into a downtown destination with construction of the new central public library, retail, and residential and commercial towers.

These projects are all part of our civic infrastructure, but the City of Austin is not alone in creating and maintaining Austin's built environment. Other major public investment, often partnered with City of Austin funding, occurs regularly. For example, the State of Texas, Travis County and other nearby counties have formed a partnership to improve the I-35 corridor; the Central Texas Regional Mobility Authority, a government agency created by the state, is in the process of installing managed lanes on Mopac; Capital Metro, our local transit provider, makes MetroRail line upgrades and rolled out its rapid bus system in 2014; school districts and higher learning institutions build and maintain our educational infrastructure; and the Central Health District provides local health care, and, along with the University of Texas and other public and private entities, is building the Dell Seton Medical School.



A planned expansion to the Austin-Bergstrom International Airport will accommodate increasing passenger traffic.

Additionally, private development, both greenfield development (new) and redevelopment (infill), makes significant contributions to our surroundings such as improved sidewalks, streetscapes, stormwater drainage, and water and wastewater lines.

Planned and Funded Projects

Funded projects for future construction

At any given time, the City has hundreds of capital improvement projects in various stages of development and construction. Planning and coordination for these projects take place during the years prior to on-the-ground implementation, and the near-term project pipeline is laid out in the Five-Year CIP Plan as well as the Capital Budget. The Five-Year CIP Plan documents planned CIP funding appropriations for the next five years and serves as the basis for development of the annual Capital Budget, which actually appropriates the planned funding each year and lays out annual capital spending. Currently, general government departments, which largely rely on voter-approved debt to fund capital projects, are focused on implementing the 2012 Bond Program—the most recent comprehensive voter-approved bond program—and spending out remaining bond dollars from older programs.

As of the beginning of 2016, the City had approximately \$250 million to \$300 million of bond program dollars slated for spending in the next five years for improvements such as design of I-35 intersection enhancements at southbound 51st Street, William Cannon Drive, and Stassney Lane; EMS ambulance truck bay expansions; the transformation of an old National Guard Armory at Austin Studios into a creative media hub managed by the Austin Film Society; and the renovation and expansion of the Women's & Children's Shelter, to name a few.

While voter-approved bond programs fund many of the City's high-visibility projects, only 12% of the \$629 million in new funding appropriations outlined in the FY 16 Capital Budget are from voter-approved bonds. Much of the funding is from debt issued by the



The New Central Library is currently under construction in the Seaholm Redevelopment District. Funded primarily by the 2006 Bond Program, the “Library of the Future” will be open to the public in late 2016.

City's Aviation Department, Austin Water, and Austin Energy—all of which generate revenue to repay debt. The Aviation Department continues to expand the airport campus, including building a new parking garage, rental car facility, and future terminal expansion. Austin Water is continuing its water reclamation initiatives, which in the next five years will involve \$35 million of projects; investing in service extensions for newly annexed areas; and replacing and rehabilitating critical system assets. Similarly, Austin Energy is focused on balancing capital renewal of existing assets, such as at the Decker Power Station, Sand Hill Energy Center, and the Fayette Power Project with expanding its solar projects as well as its Dark Sky program, which replaces aged streetlights.

2016 Mobility Bond Program

In November 2016, Austin voters approved \$720 Million in General Obligation bonds for mobility project and programs. The bond package included:

- \$101 Million for regional mobility projects
- \$482 Million for corridor improvement projects, both to implement improvements identified in

existing corridor plans and create new corridor plans

- \$137 Million in local mobility projects

The City Council has required that the bond program be completed in eight years, which will require an aggressive, well-planned implementation program. The City Manager has responded by creating a Corridor Implementation Program Office to lead implementation of the \$482 Million corridor program and tasked City staff to create project control standards that will be applied consistently to capital projects.

The City has also selected a Corridor Consultant to assist staff in conducting analysis and other activities to support development of the recommended Corridor Construction Program.

The 2016 Mobility Bond represents the largest single investment in mobility infrastructure the City of Austin has ever made. The bond program will have a significant impact not only on planning for and implementing mobility capital projects but also require planning and implementation of a number of associated capital improvements, particularly in the corridors that have been identified as part of the bond package.

Bond Development for 2017 or 2018 Election

While the Council was developing the 2016 Mobility Bond package, it also wanted to demonstrate its commitment to capital improvements for other infrastructure types as well. Council passed Resolution 20160811-031, which:

- Established a Bond Election Advisory Task Force to develop recommendations for the Council for a possible bond election in either 2017 or 2018.
- Requires identification and prioritization of capital needs in the following areas, including but not limited to:
 - ◊ Flooding
 - ◊ Libraries
 - ◊ Housing
 - ◊ Mobility

- ◊ Transit
- ◊ Parks
- ◊ Public safety
- ◊ Any other planned CIP needs

- Requires the Task Force to work within the scope of a Needs Assessment and priorities recommended by City Staff and aligning with other City policies and plans
- Requires Bond Election Advisory Task Force to report back to Council prior to a potential bond election

Departments have identified their capital needs that might be included in a 2017 or 2018 bond package through the FY 2017-18 Rolling Needs Assessment. After further filtering, those needs will be presented to the Bond Election Advisory Task Force as part of a Bond Needs Assessment. The Task Force will use the Bond Needs Assessment as the basis for developing recommendations for a bond package to be submitted to Council.

While the effect of this bond development process on the CIP is not currently known (since we do not yet have recommendations on a total bond package amount or the amount of time in which to implement this bond package should it be approved by voters), it will have a significant effect on future planning and implementation. Planning for a possible bond package, along with certain implementation of the 2016 Mobility Bond package, will require a great deal of planning, internal coordination, and efficient implementation.

Looking to the future

These recent and planned investments reflect the current environment and the City's previous highest-priority capital needs. They are incremental steps in the direction of *Imagine Austin* and fulfill expectations set by the community. But as we address the most pressing issues identified over the past few years, the City is continually faced with new challenges and priorities when considering future capital investments. Austin, like many other cities, is faced with rapid population growth. Since 1990, the population has nearly doubled and will top one million in the next few years. Not only is Austin becoming home to more people, but it is the epicenter of a fast-growing metropolitan area that includes Round Rock, San Marcos, Cedar Park and other cities.

Rapid growth has led to Austin becoming the tenth-most congested city in the country, according to the Texas A&M Transportation Institute. Affordability issues have contributed to making Austin the most economically segregated region in the U.S, according to a 2015 study by the Martin Prosperity Institute, and we are being challenged to maintain Austin's unique character while trying to accommodate the needs of a growing and changing population. At the same

time, extreme weather conditions have resulted in significant flooding impacts for residents, highlighting the need for improved stormwater management. And infrastructure in the city's inner core is aging while also having to support a larger population and higher density as a result of redevelopment. Such issues should be addressed in planning for future infrastructure investments.

In considering such challenges and opportunities, the City in 2012 adopted a 30-year comprehensive plan, *Imagine Austin*, which guides our development growth while also seeking to preserve quality of life for Austin residents. *Imagine Austin* calls for investment in seven key priority areas. The *Imagine Austin* Growth Concept Map (**Figure 2.1**) shows the parts of Austin where the City plans to focus future investments to support activity in centers and corridors as well as an expanded transportation system. Capital improvements provide an ongoing method for implementing *Imagine Austin*, further highlighting the need for effective, long-range capital planning.



Since 1990, Austin's population has nearly doubled and will top one million in the next few years. Our infrastructure needs to respond to growth and accommodate increasing service demands.

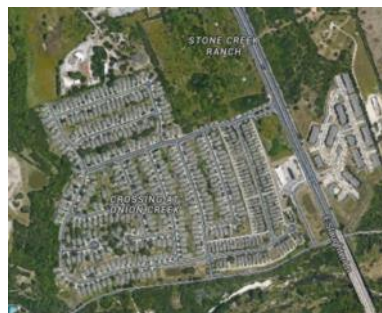
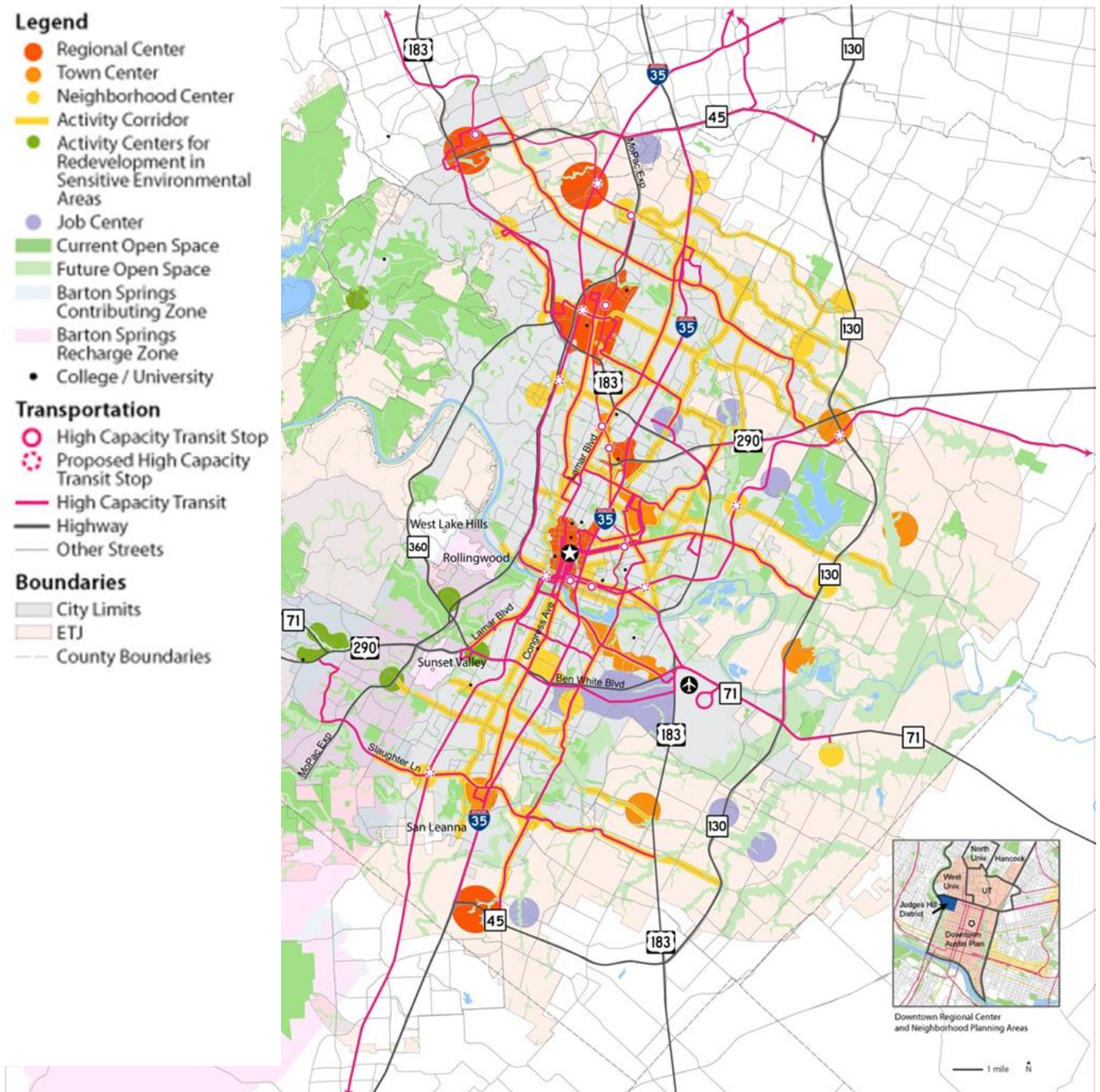


Figure 2.1 Imagine Austin Growth Concept



Major City Policy Initiatives and Plans That Affect the CIP

In addition to *Imagine Austin*, a wide variety of City of Austin policy and planning initiatives impact the Capital Improvement Program. These include adopted plans governing city investments, as well as other major initiatives which have been recently completed or are underway.

Master Plans, Small Area Plans, and Other Related Initiatives

Imagine Austin is supplemented by a host of more specialized plans, such as the Sidewalk Master Plan, Bicycle Master Plan, Urban Trails Master Plan, and small area plans which include specific infrastructure recommendations that reinforce and implement the principles detailed in *Imagine Austin*. In addition, Quality of Life reports for the African-American, Asian-American, and Hispanic communities, the Police Department's Restore Rundberg Initiative, the CreateAustin Cultural Master Plan, and the creation of cultural and entertainment districts all require investments in infrastructure to make these initiatives a reality.

CodeNEXT

CodeNEXT is the process of rewriting the Land Development Code to align Austin land development standards and regulations with *Imagine Austin*. The Land Development Code determines how land can be used throughout the city – including **what** can be built, **where** it can be built, and **how much** can (and cannot) be built. The Land Development Code has a significant impact on our daily lives, from shaping the kinds of places where residents live, work, and play, to influencing the design of streets and public spaces. The Land Development Code directly impacts capital investment by regulating certain aspects of infrastructure development and by requiring that private developers construct public infrastructure in some situations. The Land Development Code also impacts the major drivers of capital investment by controlling the density, intensity, and impact of development on various infrastructure systems.

The changes made in CodeNEXT will have a number of significant effects on infrastructure, including:

- Integrating trees, vegetation, parks, and open spaces into development and redevelopment projects
- Increasing connectivity between roads, sidewalks and trails
- Encouraging redevelopment and infill which better uses existing infrastructure
- Encouraging development of multi-modal transportation options including sidewalks, bicycle lanes, and transit
- Improving the alignment between land use and transportation by placing more diverse housing options in and around Imagine Austin Centers and Corridors, near transit, bike, and pedestrian infrastructure, and developing a comprehensive and coordinated approach to addressing parking needs.
- Building sustainable infrastructure systems that are connected and built to City standards;
- Reducing the effects of development on infrastructure and the natural environment by encouraging the use of cooperative, regional solutions;
- Identifying and resolving conflicts between code standards, street typologies, and below- and above-ground infrastructure standards

The development regulations approved through CodeNEXT will work in concert with City investments in infrastructure to support implementation of the Imagine Austin Plan. CodeNEXT and the Long Range CIP Strategic Plan are complementary efforts which are both built on the framework provided by Imagine Austin and the Imagine Austin Growth Concept Map.

Austin Strategic Mobility Plan

Currently in development, the Austin Strategic Mobility Plan (ASMP) will update and replace the 1995 Austin Metropolitan Area Transportation Plan to reflect *Imagine Austin's* vision. ASMP will expand the vision of *Imagine Austin* into actionable mobility-related goals and objectives to guide Austin's near- and long-term transportation investments. The plan

will also pull multiple concurrent mobility programs into one comprehensive vision and apply an integrated approach to planning for all modes of transportation.

ASMP will:

- Approach transportation access and mobility as essential to quality of life for Austin residents
- Add performance measures that will track the City's progress and ensure accountability
- Consider technological advances that are shaping 21st Century transportation systems
- Identify ways to improve efficiencies in Austin's existing transportation system, manage demand, and strategically add capacity to all transportation modes
- Provide base data for the creation of a City of Austin Street Impact Fee program

The plan will have a planning horizon of ten years and be updated every five years. It will identify strategies that will take the form of projects and programs that shape the future transportation network. The projects and programs that originate from ASMP will have a significant impact on the CIP for decades to come.

Project Connect

Project Connect is a regional transportation initiative designed to create a system of high-capacity transit options that will connect people, places, and opportunities in an affordable, efficient, and sustainable way. "High-capacity transit" is a transit system that travels on a dedicated lane or a guideway, such as rail. Capital Metro leads Project Connect in partnership with the City of Austin and the Capital Area Metropolitan Planning Organization (CAMPO). The project's goals are to:

- Increase efficiency, attractiveness and use of high-capacity transit to, from, and within central Austin
- Use high-capacity transit to address increasing congestion caused by regional growth
- Contribute to a socially, economically, and environmentally sustainable transit network to, from, and within Central Austin

- Support higher density land use and development patterns that reflect the vision for growth contained in local and regional plans and policies
- Develop and select transit projects that will be supported by the community and can be built to move people to, from, and within the central area of Austin

If a high-capacity transit system is built in Austin in the future, a number of accompanying capital improvements may be required, including relocation of utilities in the system's path.

Austin Strategic Housing Plan

The Austin Strategic Housing Plan's goal is to increase housing choices available to all Austin residents. The plan will include numerical goals, timelines, and strategies to maintain and create affordable housing for residents in a range of incomes throughout the city, as envisioned in Imagine Austin. The plan will help align resources, ensure a unified strategic direction, and help facilitate community partnerships to achieve the plan's vision. The plan explores funding mechanisms, potential regulations, and other approaches the City of Austin should use to achieve housing goals.

Austin has become less affordable in the last two decades to many residents. The city's growing economy and vibrant cultural assets continue to attract businesses and families, creating a steady population increase. The increased population and growing demand for housing has pushed housing prices to the point that many residents can no longer afford to live in Austin.

The plan lays out a number of key actions that affect infrastructure and CIP investments:

- Coordinating affordable housing preservation strategies with infrastructure investments
- Undertaking strategic land banking, which secures properties and sites on which to build affordable housing units
- Continuing General Obligation bond Elections to fund Affordable Housing initiatives

Flood Mitigation Task Force Report

The Flood Mitigation Task Force was created by the Austin City Council in 2015 to review existing flood mitigation and preparedness strategies, including buyouts and variances; project and operational financing for flood mitigation infrastructure; affordability; planning and regulations; stakeholder collaboration; citizen communication; and make recommendations for new strategies and policies. Council directed the Task Force to pay specific attention to Upper and Lower Onion Creek, where flooding has been severe and has had detrimental effects on residents.

Task Force recommendations affecting the CIP include:

1. Adopting a citywide flood mitigation prioritization policy based on potential loss of life, effects on general health and safety, and property damage, and using this framework to make all subsequent policy and budget decisions
 2. Funding large capital projects through bonds and available grants rather than the Drainage Utility Fee (DUF)
 3. Issuing General Obligation Bonds for large drainage projects
 4. Providing adequate funding for stormwater infrastructure maintenance
 5. Completing Lower Onion Creek and Williamson Creek buyouts as soon as possible and include targeted property buyouts in Upper Onion Creek
 6. Creating partnerships with local, state, and federal governments to solve common flooding issues
 7. Requiring all redevelopment to meet drainage criteria assuming an undeveloped condition, reducing runoff leaving the site to “greenfield” conditions
 8. Integrating green stormwater infrastructure with standard CIP solutions (e.g., gray infrastructure) where appropriate
- Expanding the Flood Early Warning System to a regional scale

The Flood Mitigation Task Force Report has a number of implications for the CIP, from establishing parameters for planning and prioritizing capital investments, to the use of future bond funds for drainage projects, to incorporating the use of green infrastructure in tandem with gray infrastructure as part of the strategy for protecting against or mitigating flood damage. These recommendations require a significantly larger capital investment in drainage and flood mitigation projects and programs.

Conclusion

Infrastructure plays a central role in providing the services that Austin residents expect, and is one of the major tools used to implement Imagine Austin and other city plans and initiatives. Past, current, and future infrastructure investments will build the Austin of the future, and shape its mobility systems, its efforts to protect residents from floods, its system of parks, libraries, and cultural facilities, its ability to provide affordable housing to all Austin residents, its development patterns, and the city’s quality of life. The planning that occurs through development of the Long-Range CIP Strategic Plan will strengthen our ability to provide the built environment that determines the city’s future.



Chapter 3

Key Drivers for Capital Investment

The process for prioritizing capital improvements can vary across departments and asset types, but there are common drivers for capital investment that affect each project or program in the Capital Improvement Program. The following section provides a description of the four Key Drivers for Capital Investment that departments consider when identifying future capital improvement projects and programs to be published in the Rolling Needs Assessment (**Chapter 8**). This chapter also provides key findings derived from the Comprehensive Infrastructure Assessment (**Chapter 6**) and Strategic Investment Analysis (**Chapter 7**) on the collective state of these drivers. The current environment related to these key drivers should be taken into consideration when looking at the Capital Improvement Program as a whole and developing a capital investment strategy.

Key Driver: Urgent Needs

Urgent needs are needs that, if not addressed in the near term, would most likely lead to:

- Public health, safety or security threats
- Impending infrastructure failure
- Significant degradation of services or compromises to service delivery
- Violations of legal judgments, court orders, regulatory mandates, or local, state or federal laws

Many of the highlighted project needs in the Rolling Needs Assessment have been identified by departments as urgent needs. Urgent needs are typically the highest priorities to deal with, and the City will often seek readily available funding options

for this purpose. A past example of an urgent need is the need to make improvements to the City's infrastructure in the aftermath of the 2013 Halloween Flood, which flooded hundreds of homes and caused an estimated \$100 million of damage in the Central Texas region, according to the National Weather Service. The safety and health issues associated with the flooding led the City to use a combination of non-voter approved debt, or Certificates of Obligation; 2006 Bond Program funding; and, later, federal disaster relief assistance to purchase flooded homes from residents for demolition and to repair damaged infrastructure. The Watershed Protection Department has identified additional needs for creek flooding mitigation in the Rolling Needs Assessment.

In other cases, a capital improvement project or program may be an urgent need, but because of the cost and nature of the program, the City will make continual incremental investments due to a lack of adequate funding and feasibility to make all improvements at once. A prime example of this is the need to bring the City's existing sidewalks into compliance with the Americans with Disabilities Act. Although it is an urgent need since improvements are required by a legal mandate, the City would need about \$580 million to bring all of the City's existing sidewalks into compliance, and an additional \$1.46 billion to address the 2,300 miles of absent sidewalks, based on a 2015 analysis by the Public Works Department.

To put this into perspective, that would be 90% of all the funds that the City invests in the Capital Improvement Program each year. The City has also developed an Americans with Disabilities Act Transition Plan, which contains target levels for sidewalk infrastructure improvements to comply

with Department of Justice guidance and ADA requirements.

Key Driver: Capital Renewal

Capital renewal refers to capital improvements aimed at the periodic rehabilitation or replacement of the City's existing facilities and infrastructure networks. These improvements are more substantial than routine maintenance, but both rehabilitation and routine maintenance are important to keeping our infrastructure at acceptable service levels.

As with any municipality, capital renewal needs exceed available funding, which creates a backlog of infrastructure needs related to capital renewal. The City is then challenged to maintain existing infrastructure while also investing in new infrastructure to support a growing community. Of the \$306.6 million voters approved in bonds to fund capital improvements in 2012, approximately 60% of the funding addressed capital renewal of our infrastructure, according to an analysis conducted by the City of Austin Capital Planning Office.

These numbers are not out of line with national trends as infrastructure investment is an issue throughout the country. The American Society of Civil Engineers in 2013 gave U.S. infrastructure a grade of D+. The following year, the President created the Build America Investment Initiative to increase investment in the nation's infrastructure through support of new financing tools and resources to streamline project delivery.

Despite the overall state of infrastructure in the U.S., Austin is doing comparatively well. A review of data from the Comprehensive Infrastructure Assessment (**Chapter 6**) shows that most of the City's existing infrastructure assets are in excellent, good, or fair condition. However, some assets are in poor or failing condition, and a few stand out as having a relatively higher percentage of poor or failed infrastructure. These assets include park infrastructure, streets, traffic signals, water and wastewater treatment plant facilities, and existing city facilities. The aforementioned infrastructure categories will require additional investment in rehabilitation or replacement in the coming years. More summary information is available in the

The Link Between Capital Projects and Maintenance

The City's streets undergo regular preventative maintenance funded by the Operating Budget, such as street resurfacing, but when a street is rated as poor or failing, the City must completely reconstruct the street, which constitutes a capital improvement project and is funded by the Capital Budget. The two types of projects—maintenance and capital improvements—are related. Without regular and preventive maintenance infrastructure, assets tend to fall into disrepair more quickly and require more frequent investment of capital funds for rehabilitation. Addressing capital renewal needs helps ensure that the City's infrastructure continues to operate and serve the public in the future.

Comprehensive Infrastructure Assessment chapter.

Infrastructure condition is one of the major factors departments consider when identifying and prioritizing future capital improvement programs and projects for inclusion in the Rolling Needs Assessment and when seeking funding for ongoing capital improvement programs.

Key Driver: Service Demands

The City strives to balance the need to maintain a consistent, reliable level of service for existing infrastructure while also making the necessary investments in additional infrastructure capacity. Austin continues to experience rapid population and employment growth. To keep pace with the demand for critical public services, the City uses a combination of public capital investments and infrastructure investments required of new private development to create new infrastructure as well as expand existing networks within newly annexed, redeveloped, or densified areas. To achieve greater cost efficiencies, the City often couples modifications to infrastructure with capital renewal projects in an effort to meet increased service demands.

Historically, Austin's population has doubled every 20 to 25 years. In fact, the Austin metropolitan region is among the top ten fastest-growing areas of the country over the past decade, according to the U.S. Census Bureau. Imagine Austin notes that the number of people living within the city limits is expected to reach nearly 1.5 million by 2039.

Planning for capital improvements to adequately support this growth requires that the City anticipate not only the number of new Austin residents the City expects to serve, but also where they will live and work. The City's upward population trajectory is unlikely to change in the near-term, but the geographic dispersion and intensity of growth will deviate considerably from the past, according to an analysis of population growth by the City's Demographer (**Figure 3.1**).

Historically, growth has tended to concentrate along the City's western and northern periphery, but supply constraints as well as demographic shifts will disrupt this development pattern. According to the City Demographer, areas east of the Mopac corridor are anticipated to experience the majority of development activity over the next few decades.

Population change forecasts project that most of high-growth ZIP codes—both in terms of percentage increase and absolute population increase—will likely cluster along the eastern portions and outer edges of the city, an area extending roughly from the Lakeline Mall area, east across Parmer Lane, through the eastern portion of the city along the Highway 183 corridor, and into

northeast Hays County. Stretching across many Austin City Council districts, this zone contains a multitude of distinct communities, each with their own unique set of challenges and opportunities in terms of infrastructure delivery. This means that the City and its public partners will need to make more new investment and ensure that private developer investments in infrastructure are guided effectively.

More established areas in Austin's urban core are also transforming in response to rapid growth. Generally, redevelopment pressure is moving from the center of the city outward, typically along commercial corridors. City departments are working to expand the capacity of existing infrastructure systems while rehabilitating aging assets to make the infrastructure more resilient and better-prepared to meet future increased service demands.

Part of this framework is helping to ensure that our infrastructure investments make the most efficient use of scarce public resources. For example, one of the goals of Imagine Austin's Compact & Connected initiative is to create 'complete communities' with greater residential and commercial density in select pockets throughout the City so that the cost of building and maintaining



Construction of the North Village Branch Library at Steck Avenue and Burnet Road was completed in 2010. In the 1998 City of Austin Bond Election, voters approved funding for the land acquisition, design, and construction of the North Village Branch Replacement Project to better serve the growing populations of the north central Austin neighborhoods.

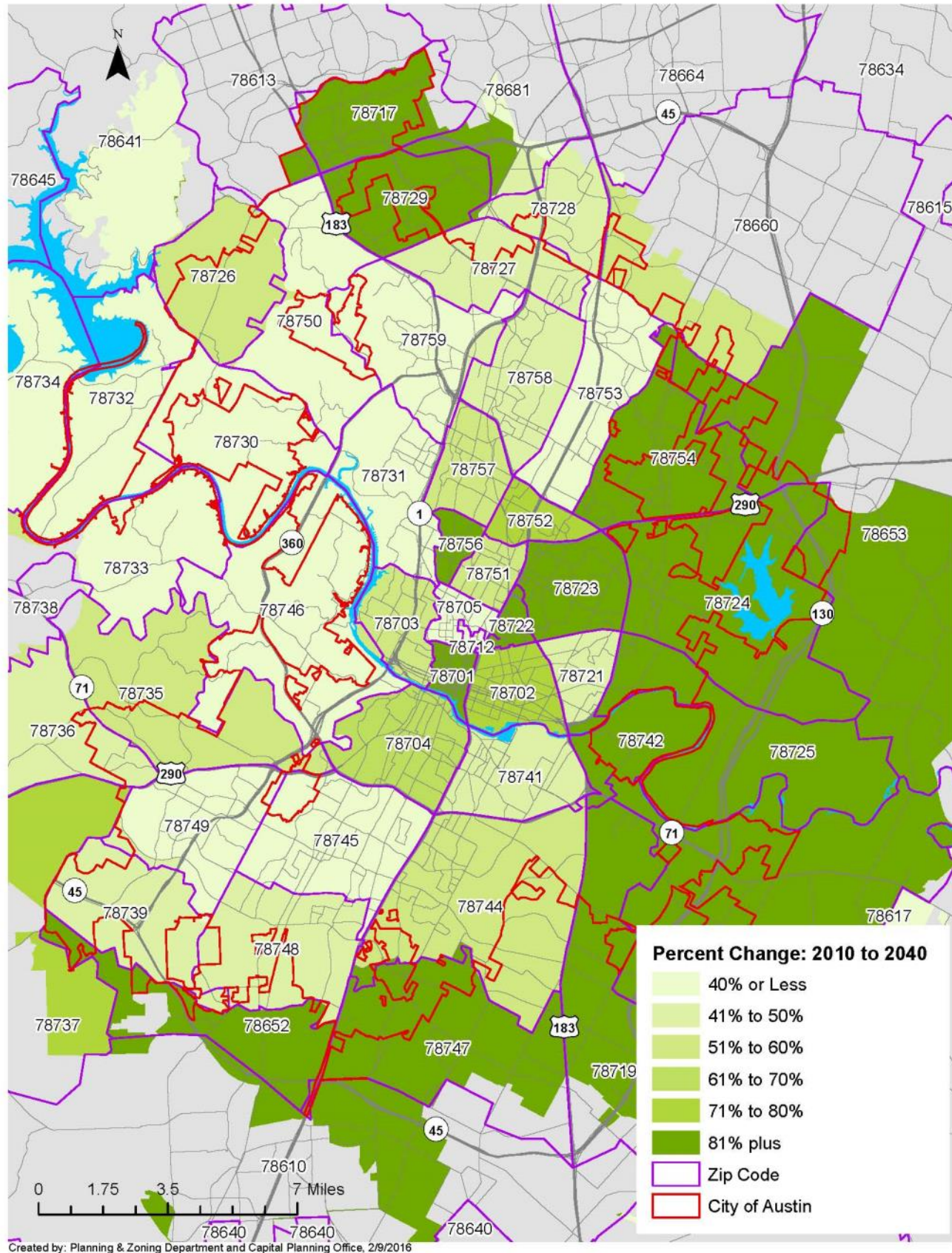
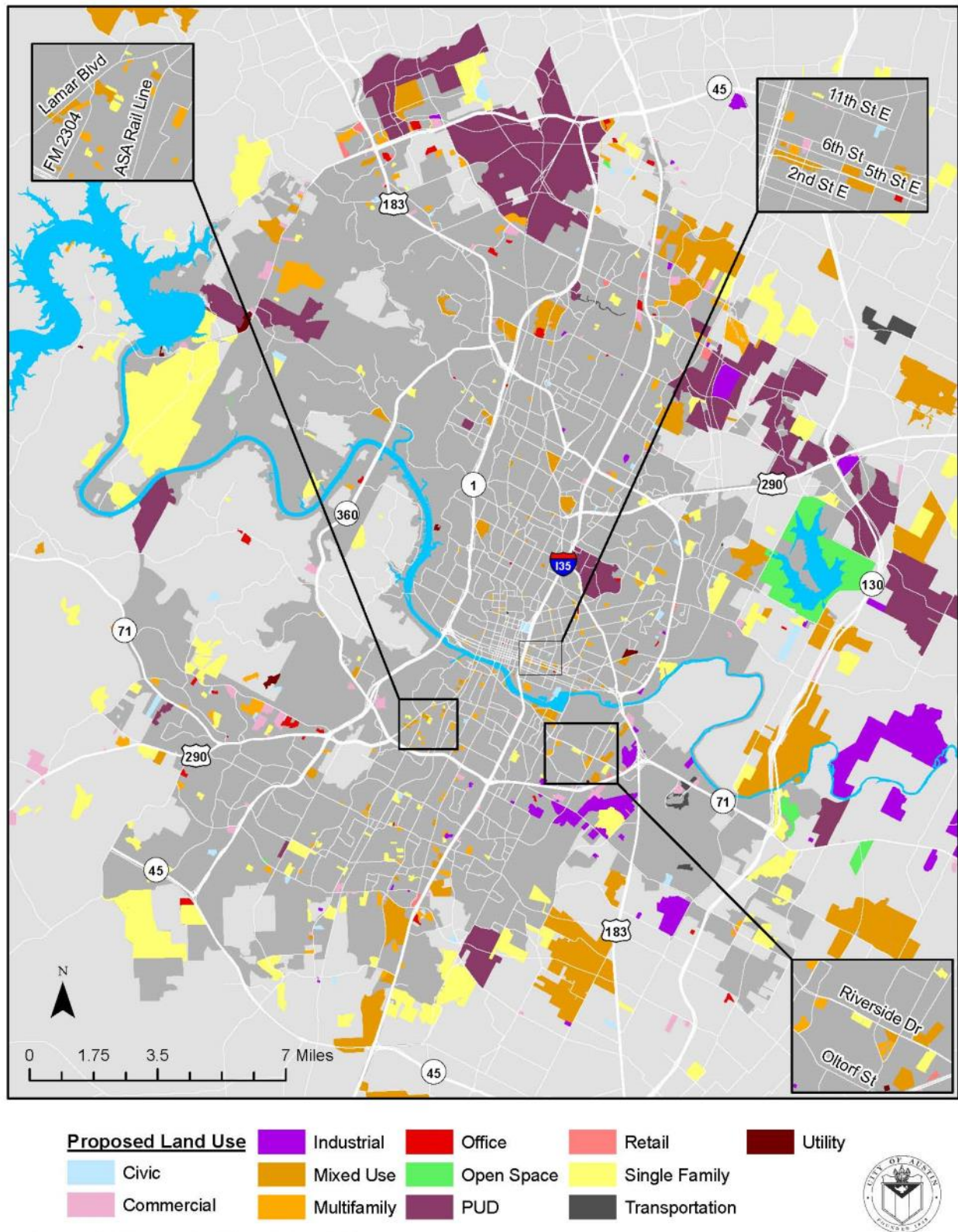
Figure 3.1 Anticipated Population Growth: 2010-2040

Figure 3.2 Emerging Development Projects



Created by: Planning & Zoning and Capital Planning Office, 2/4/2016

roads, water and wastewater pipelines, communication networks, and other types of infrastructure are shared among a larger pool of beneficiaries. A map of emerging projects (**Figure 3.2**) shows a clustering of private development activity around Centers and Corridors.

The City is responsible for ensuring adequate infrastructure is available to all citizens of Austin throughout the City. However, the approaches the City uses to address capacity enhancement needs vary in different areas of the city in response to the existing infrastructure and development context. In addition, private developers are required to provide some infrastructure to meet the increased service demands caused by the new development or redevelopment. All of these factors will play a role in the identification of future capital improvement. Meeting the demands for mobility, public safety, utilities, parks, libraries, and other vital infrastructure as Austin grows and changes over time will be essential to maintaining Austin's strong economic climate and attractive quality of life.

Key Driver: Policy and Planning Priorities

Departments' identification of capital needs is also guided in part by policy and planning priorities. Departments consider the need for projects that directly or indirectly implement Imagine Austin; infrastructure-specific master plans, such as the Sidewalk Master Plan or the Watershed Protection

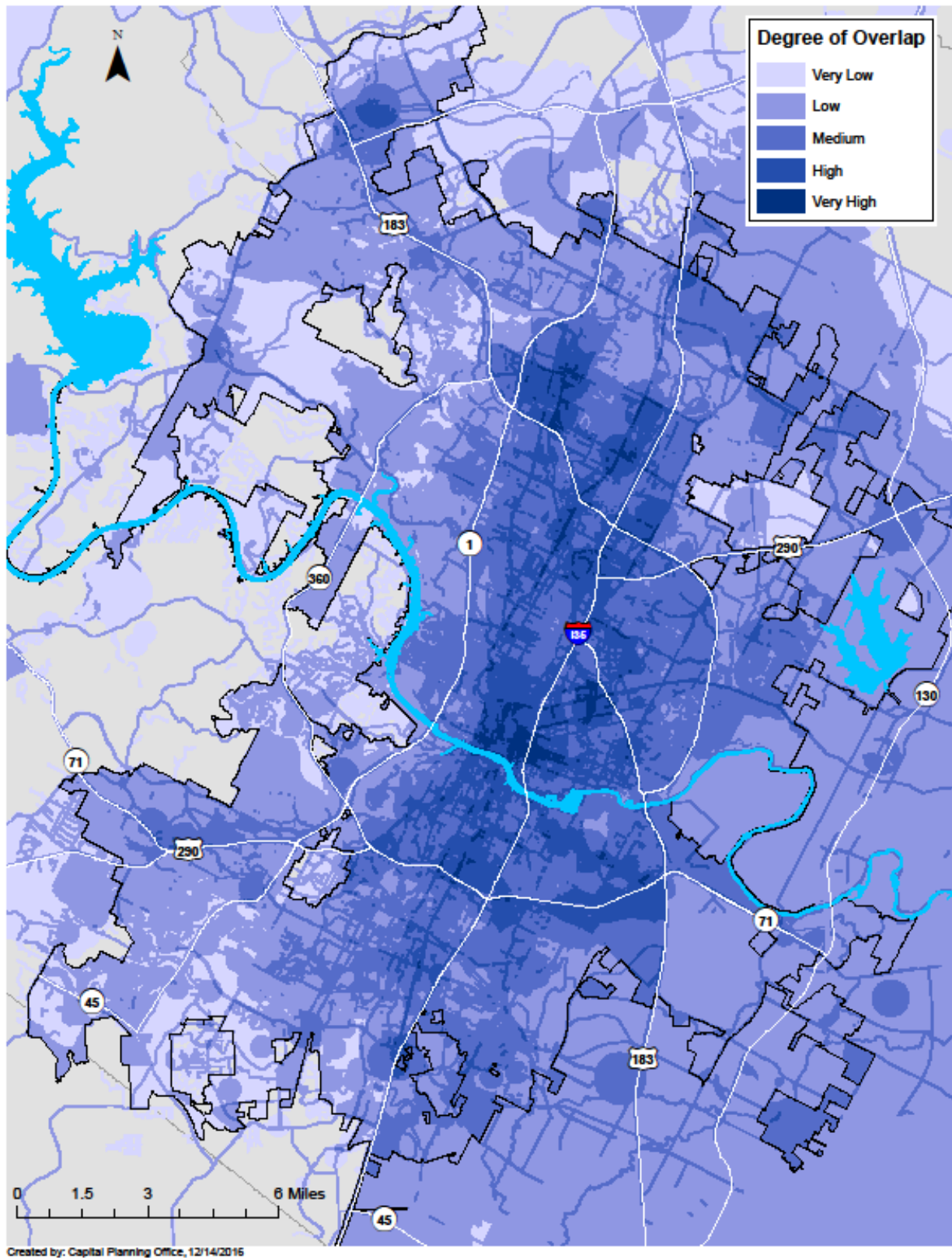
Master Plan; capital improvement recommendations from small area plans, such as neighborhood and area master plans; policy initiatives, such as the Hispanic Quality of Life Report; and regional planning efforts, such as the CAMPO 2040 Plan.

City Council often provides guidance and direction on capital investment priorities when it approves resolutions or takes other formal policy action, such as a 2009 resolution establishing a goal that each household in Austin should be within a quarter-mile to a half-mile of a park. Policy and planning priorities could be considered separate key drivers but they often overlap due to the nature of their development and approval. For instance, the resolution establishing the parkland goal was included in Imagine Austin as well as the Parks and Recreation Long-Range Plan for Land, Facilities and Programs, making access to public parks not only a policy priority but also a planning priority.

The Strategic Areas Map (**Figure 3.3**), generated as part of the Strategic Investment Analysis (**Chapter 7**), is one way that the Long-Range CIP Strategic Plan incorporates policy and planning priorities into the identification and analysis of identified capital improvement needs. Figure 3.3 depicts the geospatial relationship and overlap of the many City Council or Department-approved planning and policy documents or reports that contain recommendations for capital improvements. More about how the analysis is used for long-range CIP planning can be found in the Strategic Investment Analysis.



The Boardwalk Trail at Lady Bird Lake was completed in 2015, and completed the 10-mile circuit around Lady Bird Lake. Not only does the boardwalk provide vistas of downtown Austin, it is also an important connector between the east and west sides of Austin.

Figure 3.3 Strategic Areas Map: Overlap of City Initiatives

Chapter 4

Funding and Partnerships

The Key Drivers for Capital Investment help explain why capital projects are needed. However, it's one thing to identify the City's future investment needs and it's another to fund and implement them. Ultimately a project cannot move forward until the City makes a decision to fund it or finds public or private sector partners to help fund or implement the project. Therefore, to ensure the project can be completed successfully, the prioritization of capital projects often occurs in the context of feasibility, available funding, and partnership opportunities.

The City spends on average about \$650 million to \$700 million each year on its Capital Improvement Program. While annual spending fluctuates, overall, Capital Improvement Program spending has grown by about 4.3% on average each year during the past five fiscal years. Capital improvement needs always outweigh available funding, and the City is constantly challenged to seek out new and innovative funding sources as well as leverage existing resources.

This chapter describes how the City addresses infrastructure need through various funding sources and how it works with the private sector and other public agencies to ensure that infrastructure meets the needs of a growing city.

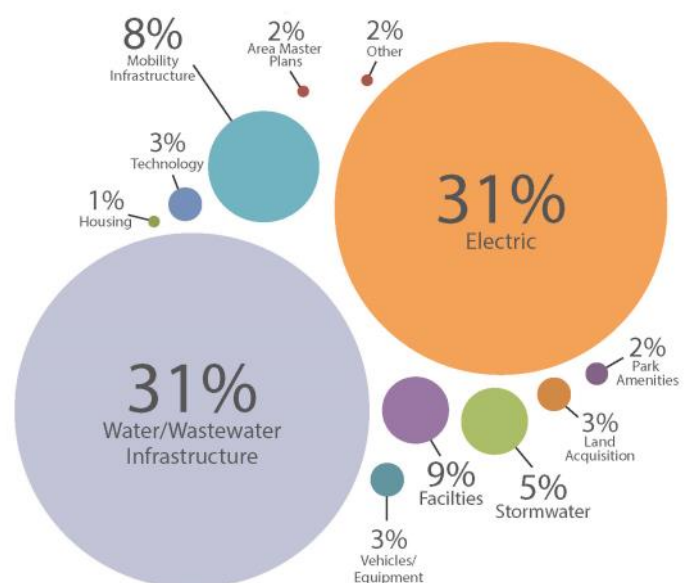
Funding the City's Capital Improvement Program

The City funds its Capital Improvement Program through multiple sources including different types of bonds (debt), grants, cash, transfers from department operating budgets, donations, sale proceeds, interagency agreements, developer contributions and fees. The different types of bonds the City uses

range from general obligation bonds (which the City issues when voters approve a bond program) to revenue bonds, certificates of obligation, contractual obligations, and commercial paper (see Appendix A for definitions). Debt is repaid over a long period of time, typically 20 years, and spreads the cost out over a large number of citizens. **Table 4.1** depicts the typical funding sources for the various infrastructure categories that the City is responsible for.

The types of funding used for a project depends on what kind of project it is (certain funding can only legally be used on certain types of projects) and whether the City department or agency overseeing the project is considered a general government or enterprise department. General government departments, such as Parks and Recreation, the public safety departments, and

Figure 4.1 Spending by Infrastructure Category (FY 2007—2015)



Austin Transportation, typically fund capital projects and programs through voter-approved bonds or other types of debt that are repaid through property tax revenues and cash/transfers.

Enterprise departments, such as Austin Energy and Austin Water, generate revenue from the sale of services (e.g., utility rates and user fees) and use this revenue as well as bonds repaid with revenue to fund capital improvement projects.

Figure 4.1 shows average capital spending (FY 2007-15) by infrastructure category during the past eight fiscal years. The City's utilities have the largest average percentage of capital spending. Stormwater management and aviation are also managed by enterprise departments, which generate fees for service as revenue.

Partnerships and Working with the Private Sector

Public funding is not the only source of funding for planned infrastructure. Our built environment is a

result of tax- and revenue-supported investments as well as the outcome of regulations that require or incentivize private development to include certain infrastructure, such as flood controls, for certain developments. An example of public and private investment combining to address community outcomes is the Great Streets Development Program. Established in 2003, the program provides financial assistance to private developers who are paying for streetscape standards that go beyond the City's minimum requirements, such as the wider and more walkable sidewalks with benches and trees downtown.

The City also relies on partnerships with private entities known as public-private partnerships (P3s). P3s involve a contractual relationship between a public sector agency and a private party in which the private party provides a public service or project, and both parties assume financial, technical and operational risk in the project. P3s allow the skillsets and assets of both the private and public sectors to be shared for the delivery of the public service or

Table 4.1 Sources of CIP Funding

	Voter-Approved GO Bonds	Revenue Bonds	Other Debt*	Cash/Operating Transfers	Grants
Area Plans				●	●
Aviation		●	●	●	●
Electric		●	●	●	
Facilities – General	●				
Facilities – Enterprise		●	●		
Housing	●				●
Land Acquisition	●		●		●
Mobility Infrastructure	●		●	●	●
Park Amenities	●		●	●	●
Public Art	●				●
Stormwater	●	●	●	●	●
Technology			●		●
Vehicles/Equipment			●	●	●
Water Infrastructure		●	●	●	

*Other debt refers to Certificates of Obligation, Contractual Obligations and Commercial Paper. Definitions of these terms can be found in Appendix A.

This chart does not indicate magnitude of investment or use of funding sources

facility. The City of Austin/YMCA North Austin Community Recreation Center, located on West Rundberg Lane in North Austin, is a P3 between City and the YMCA. For that project, the City contributed \$8.9 million from the 2006 Bond Program and the YMCA \$1.5 million to design and construct the facility, which opened in 2012. The YMCA now operates and maintains the building, which not only includes workout equipment, a pool and exercise studios, but also community space, a teen room, and computer lab.

The City may also establish partnerships with other public entities. For example, visioning for the future of the I-35 Corridor involves collaboration between the City, the State of Texas, and other public entities responsible for providing transportation improvements in the region. The City also establishes partnerships with the Austin Independent School District to provide parkland for both district schools and the public.

The Capital Budget

The City's Annual Budget has two primary components: the Operating Budget and the Capital Budget. Generally, routine maintenance needed to ensure that infrastructure meets its expected useful life as well as minor or routine repairs are funded through the City's Operating Budget. More intensive rehabilitation and replacement of infrastructure, or capital improvements, are funded through the Capital Budget.

Unlike the Operating Budget, items funded by the Capital Budget are not decided upon each year based on capital needs. Many of the decisions about what will be funded in the annual Capital Budget occur many years in advance. For General Fund Departments, this often occurs when voters approve general obligation bonds and the City plans how and in what sequence to undertake the approved projects.

The Capital Budget appropriates the needed additional funding to continue existing projects or begin new projects each year. When the Capital Budget provides funding for ongoing capital improvement programs, it is allocated based on plans and policy guidance from City Council. For instance, ongoing funding for the erosion control program is allocated based on the Watershed Protection Master Plan, which is developed with input from the public and technical assessments of existing infrastructure.

City Council holds public hearings on the proposed Operating and Capital budgets and then approves both budgets in August or September for the following fiscal year, which begins Oct. 1.

Part II

Chapter 5 Conclusions and Strategies



Image Courtesy Michael Knox

The Long-Range CIP Strategic Plan employs a data-driven approach to analyzing the City's collective Capital Improvement Program needs. Based on an analysis of the Key Drivers for Capital Investment, including growth and service trends, data from the Comprehensive Infrastructure Assessment, Strategic Investment Analysis, and Rolling Needs Assessment, and the current state of funding for capital improvements, staff have identified the following conclusions and key capital investment strategies for the City's Capital Improvement Program.

These strategies would be carried out over time through incremental decisions made by:

- City Council through formal policy decisions, initiation of General Obligation bond propositions for voter approval, acceptance of contracts, grant awards and partnership agreements for CIP projects, and approval of the Capital Budget
- City Management through implementation direction, monitoring, and issues resolution
- The Planning Commission through fulfillment of their Charter requirement to recommend capital improvements necessary or desirable to implement Imagine Austin
- The Planning and Zoning Department, Budget Office, and others through ongoing Capital Improvement Program planning, coordination and oversight
- The Budget Office through development of the Capital Budget and long-term financial strategies
- Departments through implementation of the Capital Improvement Program and identification of future capital needs
- The Development Review Department and development review staff in many departments through the review and application of private development infrastructure requirements
- The Planning and Zoning Department through the revision of private development infrastructure requirements (CodeNEXT), small area planning and annexation planning
- Partnerships with other public agencies and non-profit organizations

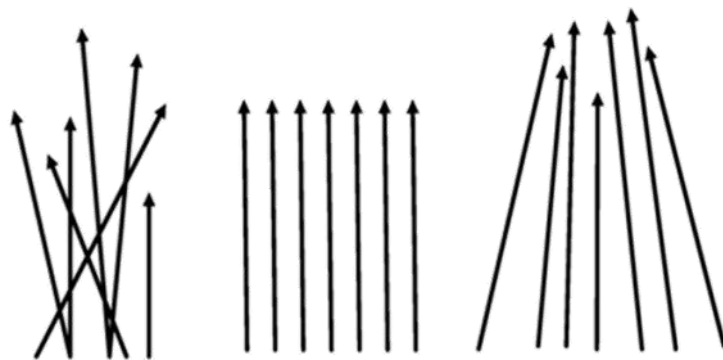
Because CIP decisions are made incrementally by a range of individuals and organizations, it is sometimes difficult to determine how individual program or project decisions collectively affect the City's ability to accomplish the long-term goals and vision outlined in Imagine Austin while ensuring all Austin residents have equitable access to basic infrastructure. The data collected and analysis conducted each year as part of the Long-Range CIP Strategic Plan provides a lens by which to view the collective impact of multiple individual CIP decisions. It also provides an opportunity to identify strategies to address any gaps in meeting long-term goals and ensure that adequate infrastructure is available to all geographic parts of the city in an equitable manner.

The City's infrastructure networks are operated, maintained and improved as a system; the interconnectedness of infrastructure provides benefit to and is paid for by the entire community. However, capital needs vary in different parts of Austin based on the surrounding context and state of infrastructure. For example, there are a greater number of capital renewal needs in the central part of the city due to the age of existing infrastructure. Service demands for infrastructure investment are increasing with new private development on the outer edges of the city as well as redevelopment in the central city. The solutions to meet these service demands in different parts of the city vary dramatically, ranging from retrofitting existing infrastructure in redeveloped areas to extending new infrastructure into greenfield areas.

Private development requirements for providing infrastructure also affect the location of public infrastructure investment needs. These requirements have changed over time, which is reflected in the infrastructure provided in different parts of the city. For example, the sidewalks program identifies more sidewalk gaps in areas where sidewalks were not required when the area was developed. Since all new private development must now provide sidewalks, the need for public investment in newer subdivisions on the edges of the city is not as great.

The geographic location and condition of existing infrastructure and planned investment by private development and other entities provides the context in which the City identifies future capital needs and prioritizes many departments' ongoing CIP programs to ensure all residents have access to basic infrastructure. The Imagine Austin Comprehensive Plan directs the City to go further, to facilitate the creation of "complete communities" throughout Austin where the infrastructure and services to fulfill all Austin residents' material, social and economic needs are easily accessible. The City will build upon the basic infrastructure needs for capital renewal and meeting service demands to develop enhanced projects to work toward this vision.

The strategies provided in this section are intended to ensure that the City's Capital Improvement Program effectively implements the vision of Imagine Austin while continuing to address ongoing capital renewal and service demand needs in an equitable manner within a constrained funding environment.



Transforming the Imagine Austin vision into reality will require incremental steps taken over time by many different City departments and community partners working together.

Capital Renewal

Capital renewal refers to capital improvement projects aimed at the rehabilitation or replacement of the City's existing facilities and infrastructure networks. Rehabilitation, replacement, and basic maintenance are vital to keeping our infrastructure at acceptable service levels.

Conclusion 1: While much of the City's infrastructure is in fair or better condition, regular funding is needed to maintain acceptable levels of service. In addition, some asset categories have higher amounts of infrastructure that are in poor or worse condition that will require substantial capital investment over the long-term.

The City manages a wide variety of infrastructure assets, including more than 7,500 lane miles of streets, 2,400 miles of sidewalks, over 3,700 miles of water lines and 2,700 miles of wastewater lines, over 11,000 miles of electric lines, and many other assets. Infrastructure is managed by individual departments, and those departments keep track of the infrastructure inventory under their management.

As demonstrated in **Figures 6.1 through 6.6** from the Comprehensive Infrastructure Assessment (**Chapter 6**), much of the City's horizontal infrastructure is in excellent, good, or fair condition. Reviewed as a whole, 86% of the City's infrastructure assessed in the 2014 Comprehensive Infrastructure Assessment is in excellent, good, or fair condition. Measured on a scale of 0 to 100 percent, that would give the City's infrastructure a general 'grade' of B. Comparatively, when the American Society of Civil Engineers assessed the nation's infrastructure in 2013, it gave an overall 'grade' of D+. A similar assessment of Texas infrastructure in 2012 resulted in a grade of C

City departments do their best within existing funding constraints to keep infrastructure operating safely, efficiently, and meeting established acceptable levels of service. However, as can be expected of infrastructure, it is often exposed to inclement weather conditions or, in many cases, is simply old. Thus, some assets are in poor or failing condition. Higher percentages of some infrastructure types are in poor or failed condition. Those infrastructure types include:

- **Water Treatment Facilities:** 24% are in poor condition
- **Wastewater Treatment Facilities:** 40% are in poor condition
- **Streets:** 13% are in poor condition; 8% are in failed condition
- **Traffic Management Infrastructure:** 13% in poor condition; 3% in failed condition. Within the traffic management category, 19% of traffic signals and 20% of school beacons are in poor condition.
- **Park Infrastructure:** 11% are in poor condition; 14% are in failed condition.
- **Wood condition of trees on public land:** 27% in poor condition, 1% in failing condition
- **Creek Crossings:** 10% are at high risk of flooding and 13% are at very high risk.

Also, while the City does not currently have an up-to-date, comprehensive condition assessment of all City facilities, information from the Strategic Facilities Governance process and the Rolling Needs Assessment continues to demonstrate that current City facilities continue to need rehabilitation.

Infrastructure requires regular investment and improvement to ensure that it remains in service over time. Although the City's horizontal infrastructure is in good shape when compared with similar infrastructure nationwide, it will always be the case that without periodic investments to rehabilitate infrastructure, some portion of it will decline. The specific reasons for poor or failed condition may vary, but common reasons include continuous and heavy use of the asset, the effects of being exposed to weather conditions, lack of adequate financial or staff resources to conduct regular maintenance, and in

many cases, the age of the asset. Infrastructure in poor or failed condition will need substantial rehabilitation or replacement in the future to continue to meet the demands of a growing population.

Strategy 1: Continue to prioritize the rehabilitation of infrastructure assets with higher percentages in poor and failing condition, particularly park infrastructure, streets, traffic signals, school beacons, creek crossings, water and wastewater treatment facilities, and existing city facilities.

Conclusion 2: Capital renewal needs along with service demands continue to make up a large proportion of high priority capital improvement needs, causing challenges in addressing strategic priorities with limited available funding options.

Similar to other municipalities across the country, much of the City's investment in infrastructure is to fix our existing assets so that they continue operating at an acceptable level of service. Several City departments have ongoing capital improvement programs that are primarily focused on addressing capital renewal needs. These programs help the City keep the infrastructure already in place serving the public as intended. For example, the Public Works Department operates street rehabilitation and street reconstruction programs to ensure that streets are in adequate condition to safely handle traffic. The Watershed Protection Department operates an ongoing program to mitigate flooding risk at creek crossings.

Funding methods for ongoing infrastructure programs depends on whether a City department is a general government department or an enterprise department. While enterprise departments have revenue streams from rates and fees, general government departments depend largely on voter-approved bonds to fund much of the capital renewal for the existing infrastructure they manage.

Historically, a substantial percentage of voter-approved bonds have been dedicated to meeting the basic need of fixing existing infrastructure. For example, about 60% of the bonds approved by voters in 2012 were targeted for renewal of existing infrastructure, and about 90% addressed capital renewal and service demand needs combined. Even so, the funding may not be enough to adequately address capital renewal needs, given the continuous need to rehabilitate infrastructure whose condition declines.

While the City may hold bond elections every few years to fund specific types of infrastructure improvements (for example, transportation bonds have been approved in elections in 2006, 2010, and 2012), bond elections for more general infrastructure needs, such as parks and libraries, usually occur only every six to eight years. The last two all-purpose bond elections occurred in 2006 and 2012.

Meeting basic infrastructure needs—rehabilitating or replacing existing infrastructure—requires that infrastructure be repaired even under tight economic constraints. This is particularly true if infrastructure failure means that public health or safety is threatened. If the bonds funding basic improvements are not approved, improvements will either not be made or departments will have to shift funding from other needs to make those improvements. Departments have sought additional options for funding these basic needs with alternative funding sources, and some efforts have been successful on a limited basis. For example, the Austin Transportation Department has identified some funding for traffic signals; Neighborhood Housing and Community Development has been successful in seeking funds for some affordable housing; and the Budget Office has been successful in finding some additional funding for rehabilitation of some City facilities. However, these efforts have not found ongoing, reliable funding sources that can sustain these efforts for a long period of time. The City will

continue exploring its options for funding these basic needs to ensure that infrastructure it has in place operates safely, efficiently, and meets public expectations.

Strategy 2: Continue to explore sustainable funding strategies to meet capital renewal needs to allow for more consideration of strategic priorities in capital improvement funding and decision making.

Service Demands

Rapid population and employment growth, combined with changing development patterns, create increased demands on the city's infrastructure networks, several components of which may not have been planned to fully accommodate the additional use that is being experienced. In addition, new capacity or enhanced functionality may be needed to address the changing service requirements for the city's roads, parks, drainage and other infrastructure. Overcoming these challenges will require the development of new planning techniques, funding sources, approaches to regulation, and the development of partnerships with both public and private entities.

Conclusion 3: Significant, incremental redevelopment is occurring in areas of Austin with older infrastructure systems, which presents challenges for seamless infrastructure system integration.

As rapid population growth continues in Austin, redevelopment is occurring across the city, not only in downtown but rapidly moving outward along commercial corridors. The challenge to keep pace with population growth and accompanying increased demand for services will put a strain on the infrastructure in those areas, which tends to be older and in need of rehabilitation or replacement just to meet current service demands. The Rolling Needs Assessment indicates that the largest concentrations of planned capital renewal projects are in Downtown and in the Urban Core. In many cases, the City will combine capital renewal projects with capacity expansions to meet the planned increased service demand. Private development is also a significant contributor to the city's infrastructure through required and negotiated construction and fees. However, incremental redevelopment in the central city faces several challenges when tying into existing infrastructure networks. Often the systems the redeveloped properties are tying into are older, and were not built to standards that are now required of the development. This can add additional complexity to making infrastructure improvements as old systems and new systems come together. For example, new commercial development is required to provide sidewalks set back from the curb to allow for a vegetative zone. However in a redevelopment scenario, there may not be an existing sidewalk on the adjoining property to connect to, or the sidewalk is in a different location such as abutting the curb. Creating a seamless infrastructure network in the context of incremental changes within the system becomes even more challenging when the City has a future vision or plans for enhanced infrastructure improvements in an area, but does not yet have funding or an exact timeframe in which those changes will be made. In those instances, the City must work with private sector redevelopment efforts to ensure that those private efforts do not preclude or hinder future City CIP investment and to better leverage these efforts to meet future CIP needs.

Strategy 3: Continue to seek opportunities to coordinate and leverage private and public capital investment, particularly in centers and corridors experiencing or projected to experience significant private development. Continue to combine capital renewal projects with expansion of infrastructure capacity to serve larger populations whenever possible in centers and corridors where significant growth is expected.

Conclusion 4: Significant population growth is anticipated on the edges of Austin, particularly in the eastern portions of the city, primarily through new greenfield development. This anticipated growth will require a long-term infrastructure planning effort across all infrastructure types to ensure the combination of planned CIP investment and private development regulations for infrastructure are adequate to respond to increased service demands in these areas.

Large tracts of land on the periphery of Austin are being planned for development—some inside the current city limits and some outside that may be considered for annexation in the future. City departments already engage in long-range planning for the provision of infrastructure in these areas, and those efforts will need to continue to ensure that we have planned for all types of infrastructure before the individually planned development of multiple new greenfield sites collectively limit opportunities. This is particularly true for mobility connectivity and open space protection. In addition, the City will continue assessing the condition and capacity of infrastructure around proposed new developments to ensure the appropriate planning and CIP project development occurs and that infrastructure expansion occurs at the appropriate time to meet service demands as these areas evolve.

Long-term planning and infrastructure investments can also be used to facilitate ‘complete communities’ development patterns envisioned in Imagine Austin in future greenfield developments. An example is the master planning effort for the Colony Park area.

Proactive annexation and the application of City development standards before these areas are built will also result in significant CIP cost savings in the future. Basic infrastructure expected by City of Austin residents will then be provided by private development, which reduces the need for costly CIP investment to retrofit it later. The proactive, strategic extension of municipal services with annexation could catalyze the type of growth and development envisioned in Imagine Austin and would be more fiscally sustainable over time.

Strategy 4: Continue to plan for annexation and infrastructure investment in all infrastructure types in areas on the geographic edges of Austin to prepare for expected future service demand, and facilitate “complete communities” development patterns in future greenfield development.

Conclusion 5: Rapid growth and changing development patterns have produced significant impacts in several parts of the city, and infrastructure solutions can often remediate those impacts.

Austin’s rapid growth has challenged the City to find ways to deal with its impacts on Austin residents. For example, the rapid growth of single-family housing in the neighborhoods adjacent to South Lamar Boulevard resulted in a significant increase in impervious cover in the area, which increased the incidence of flooding in those neighborhoods.

The rapid growth has also increased traffic and overwhelmed the ability of the roadways to handle the volume of cars. The growth, increased property values, and the increased demand for housing have

affected housing costs, making the City less affordable for some residents. Many of these problems will require immediate infrastructure solutions and the money to fund them while the City develops longer-term solutions. For example, Departments have identified capital needs such as the West Bouldin Creek-Del Curto Storm Drain improvements and investment in transportation system safety improvements along major corridors where significant development or redevelopment is anticipated such as North and South Lamar Boulevard, Airport Boulevard, South First Street and South Congress corridors, among others.

Strategy 5: Prioritize short-term investments to address increased service demands on existing infrastructure, and plan for and develop mid- and long-term solutions that increase infrastructure network capacity to meet expected future service demands. This priority has been identified across several infrastructure types, including but not limited to mobility, flood control, and water infrastructure.

Planning and Policy Priorities

In addition to the drivers of capital renewal and service demands, the CIP is also driven by planning priorities that result from Imagine Austin and a number of other planning efforts, such as small area plans, infrastructure master plans, and regional plans. Policy priorities arise when City Council approves resolutions or takes policy action that provides guidance and direction on capital investment priorities. Planning and policy priorities serve as a key driver for strategic infrastructure investments in projects and programs that will transform the city.

Conclusion 6: Opportunities exist to develop additional strategic projects that leverage basic capital improvements to achieve City policy and planning outcomes; this will require additional planning in areas without master planning efforts and project development efforts where plans are in place.

Strategic CIP investments are a critical component in achieving Imagine Austin's vision of complete communities where all residents have access to the services they need close to where they live and work. These services include affordable housing, parks, reliable water and electric service, transit and other mobility options in addition to the services provided by private businesses. Departments will continue to find opportunities to make infrastructure improvements that meet the City's planning and policy goals while also meeting the capital renewal and service demand needs driving routine CIP projects.

The 11 strategic areas identified in the Strategic Investments Analysis as providing the greatest opportunity to address overlapping city initiatives also provide a location-based focus for the development of strategic projects or groups of projects to meet multiple City initiatives for a more significant community impact. These areas where there is high overlap of adopted plans and policies consequently tend to converge around many of the centers and corridors identified in the City of Austin Comprehensive Plan's growth concept map.

These areas are derived from evaluating the geographic overlap of adopted City plans and other initiatives. The amount of past planning conducted and focus of City initiatives varies depending upon the area of the city. This inevitably will affect which areas of high overlap exist in the Strategic

Investments Analysis. This does not mean that CIP strategic priorities do not exist in areas with less overlap; the high overlap areas merely show opportunities to address city planning and policy priorities where those priorities can be readily identified through vetted and approved city plans and policy initiatives.

Many departments have ongoing CIP programs dedicated to identifying and developing CIP projects to address basic capital renewal and service demand needs occurring across the city. These programs can be leveraged with city planning and policy priorities to ensure that not only basic needs are being addressed but also that strategic outcomes are being achieved on a broader scale. For example, mobility infrastructure needs can be coordinated with housing options, transit accessibility, and proximity to work centers to support city affordability priorities. However, additional coordination, program development, and interaction with other partners such as the private sector and other local government entities will be critical to realize such outcomes.

CIP program development and prioritization of a strategic set of future investments and the fostering of partnerships will be necessary to achieve the improved community outcomes envisioned in Imagine Austin for centers and corridors and in recommendations from many other City initiatives.

Strategy 6: Identify strategic capital investment opportunities that leverage routine CIP investments for capital renewal and service demands. Develop strategic projects in areas where those projects can achieve multiple priorities from existing plans and policy initiatives, such as those identified in areas of high overlap in the Strategic Investment Analysis.

Conclusion 7: As the city has grown and evolved over time, different areas of the city have certain development characteristics, projected growth patterns and levels of past CIP planning and project development that warrant different types of capital investment strategies.

As the Strategic Investment Analysis demonstrates, CIP planning and private development or redevelopment has evolved at a more rapid pace in some areas of the city than in others. The context of past CIP planning, project development and investment; identified future CIP needs; and existing and anticipated private development shape the City's approach to CIP investment based on location.

In Downtown, for example, where there has been significant redevelopment over the past couple decades, departments have identified specific strategic project needs to meet planning and policy priorities. In this area, the approach is to look for funding for the strategic projects already identified in the Rolling Needs Assessment to complete or complement other recent investments, and to continue to leverage private and nonprofit investments in the area.

In other areas of high projected redevelopment in the urban core, there are many small area plans, corridor plans and other City initiatives that make CIP investment recommendations to achieve a future community vision for the area. However, many of the CIP recommendations need further district-level CIP program and project development to translate the recommendations into feasible projects that take into account the complexities of the existing infrastructure systems and changing development context. In these areas the approach is to develop a set of specific strategic projects or group of projects in

preparation for funding opportunities. In these areas there is also the opportunity to partner with or leverage private development as opportunities arise to address the City's priority routine and strategic Capital Improvement Program needs.

In the outer edges of the city, where significant population growth is anticipated through new greenfield development and where there are fewer existing or approved City plans to reference, the approach is to continue and enhance long-range infrastructure planning to prepare for the anticipated increase in service demands in this area due to future growth. This will include coordinating multiple Departments' long range planning efforts, as well as evaluating the collective coverage of the anticipated infrastructure investments required of future private development. The City will need to work closely with the County, Capital Metro, school districts and others to ensure infrastructure is adequately planned for and that it supports the development of complete communities.

In areas where lower population growth is anticipated and fewer emerging development projects are planned, but where there are multiple City initiatives overlapping, such as in the North Lamar/Rundberg area, the City will need to rely more heavily on identifying specific public investments and partnerships with other public agencies and non-profits to achieve adopted planning and policy goals.

Strategy 7: Take a context-sensitive, area-based approach to developing a coordinated set of strategic projects to achieve the City's adopted planning and policy priorities as well as efficiently prepare for, leverage and respond to growth and the associated increased service demands on CIP infrastructure.

Funding and Partnerships

Given the reality that there will also be more infrastructure need than available funding from traditional sources, the City will always need to seek innovative approaches to address its many CIP needs. This will require new thinking and approaches, not only to funding issues but also addressing regulatory hurdles that might place barriers in the path of completing necessary infrastructure projects. The City will also have to look for new avenues to make CIP improvements by forming partnerships with other public entities as well as private sources.

Conclusion 8: Need for innovative approaches to funding, regulation, planning, and partnerships to further realize the potential opportunities of strategic capital investment as well as minimize cost impact of addressing basic drivers of capital improvement needs.

The increased demand for City services and infrastructure brought on by population growth and changing development patterns, combined with currently limited funding opportunities, require the City to develop and implement other innovative approaches for addressing capital improvement needs. The City will need to explore innovative approaches not only in funding, but also in regulation, planning, and partnerships with both public and private entities to meet the infrastructure needs of a changing population. In addition to finding new, effective approaches to meeting our capital needs, this effort can also result in decreasing the overall costs of these projects and the resulting debt burden placed on the citizens of Austin.

Strategy 8: Continue to seek funding opportunities such as grant funding, partnerships and other funding mechanisms to supplement and leverage public CIP funding.



Part III

Chapter 6 Comprehensive Infrastructure Assessment

Image Courtesy Jim Linton

Infrastructure is a critical component of providing services, a better quality of life, and economic prosperity to residents. The City of Austin strives to keep infrastructure operating at acceptable service levels because of the important role infrastructure plays in each citizen's quality of life.

With this goal in mind, the City initiated a process in 2014 to conduct a Comprehensive Infrastructure Assessment. During this process, departments assessed the condition of public assets to identify capital renewal needs to ensure existing City infrastructure meets acceptable levels of service. The Comprehensive Infrastructure Assessment is a new process to compile this information and create a framework for communicating condition information across asset categories to help identify long-range Capital Improvement Program needs. The information also helps demonstrate the necessity of funding regular maintenance to extend infrastructure life and keep it operating at acceptable service levels.

The Comprehensive Infrastructure Assessment includes an inventory of assets throughout the various infrastructure categories, an assessment of the condition of these assets, and conclusions about the data collected during the

assessment process. These conclusions are also reflected in the Conclusions and Strategies (**Chapter 5**).

It is important to point out that, in this analysis, "condition" mostly refers to physical condition. In three situations (flood risk at creek crossings, erosion risk along creeks, and water quality ratings), risk and quality are assessed. Some departments, such as Watershed Protection and Austin Transportation, are exploring another aspect of condition assessment: capacity. The Watershed Protection Department is working on methods to assess the capacity of its infrastructure to manage certain volumes of stormwater. Austin Transportation is working on methods to measure and track the capacity of roadways to handle certain traffic volumes. As these departments refine their methodologies, they will submit capacity information to the Capital Planning Office, which will include it in a future update to the Comprehensive Infrastructure Assessment.

How the City Uses the Comprehensive Infrastructure Assessment

The Comprehensive Infrastructure

Assessment feeds into the Long-Range CIP Strategic Plan and allows the City of Austin to more adequately plan for the future needs of ongoing capital programs as well as prepare for future potential funding opportunities when they arise. The Comprehensive Infrastructure Assessment provides the context for many of the capital renewal needs identified in the Rolling Needs Assessment (**Chapter 8**).

Infrastructure Inventory

The City owns and manages a variety of infrastructure assets, such as streets, bridges, sidewalks, traffic management devices, and recreation facilities that Austin residents use daily. The City also manages a significant amount of green infrastructure, including parkland, trees on public lands, urban trails, creek drainage basins (for water quality monitoring and mitigation), and creek segments (for erosion control and monitoring). The City also owns its own electric utility, water and wastewater utility, drainage utility, and an airport, and manages a large number of infrastructure assets that make those operations possible. **Table 6.1** is an inventory of horizontal infrastructure the City manages. City departments continue to refine their infrastructure data.

Infrastructure Condition

Infrastructure condition is dependent on a number of variables, including the amount and frequency of use, the type and severity of weather conditions in which it must operate, the type and amount and frequency of regular and preventive maintenance performed on the asset, and its age. Condition is one of the basic characteristics that infrastructure managers assess and is one of the major drivers that influence decisions on when to make major capital renewal investments. The following figures and text describe the condition of utility infrastructure, mobility infrastructure, park infrastructure, trees on public land, stormwater management, and vehicles and equipment.

Water and Electric Utility Infrastructure

The City of Austin owns two utilities, Austin Energy and Austin Water. Austin Energy provides

retail electric service in its 437 square-mile service area. Within Austin, the service area includes 206 square miles and in surrounding Travis and Williamson Counties, 231 square miles.

Austin Energy manages a variety of infrastructure assets to generate, transmit, and deliver power to its customers. The utility uses a mix of generation sources that includes coal, nuclear, and natural gas as well as renewable energy, which together have a generating capacity of 3,779.4 megawatts. Austin Energy owns two locally sited power plants powered by natural gas (Decker Power Station and Sand Hill Energy Center) and has a partnership interest in two plants outside of Austin (the Fayette Power Project, which is coal-powered, and the South Texas Project, which is nuclear-powered).

Austin Water provides retail water and wastewater services to approximately 1,000,000 customers inside and outside the Austin city limits as well as 21 wholesale customers, including the communities of Rollingwood, Sunset Valley, Manor, Westlake Hills, two water control and improvement districts, and several water supply corporations and private utilities. Austin Water's mission is to provide customers with clean and safe water and to help ensure the social, environmental, and economic sustainability of the communities served. The utility operates three water treatment plants with a combined treatment capacity of 335 million gallons a day: Davis, which was built in 1954; Ullrich, which was built in 1969; and Water Treatment Plant 4, which was completed and commissioned in 2014. The utility also operates three major wastewater treatment plants with a combined treatment capacity of 150 million gallons daily: Walnut Creek, built in 1977; and South Austin Regional, built in 1986. The Hornsby Bend Biosolids Management Plant built in the 1950's also further processes biosolids from the other wastewater treatment plants. **Figure 6.1** summarizes infrastructure condition for the two utilities on a count basis.

Much of the City's utility infrastructure is in excellent, good, or fair condition. However, a higher percentage of some elements, particularly water treatment and wastewater treatment facilities are in poor condition in comparison to other water utility

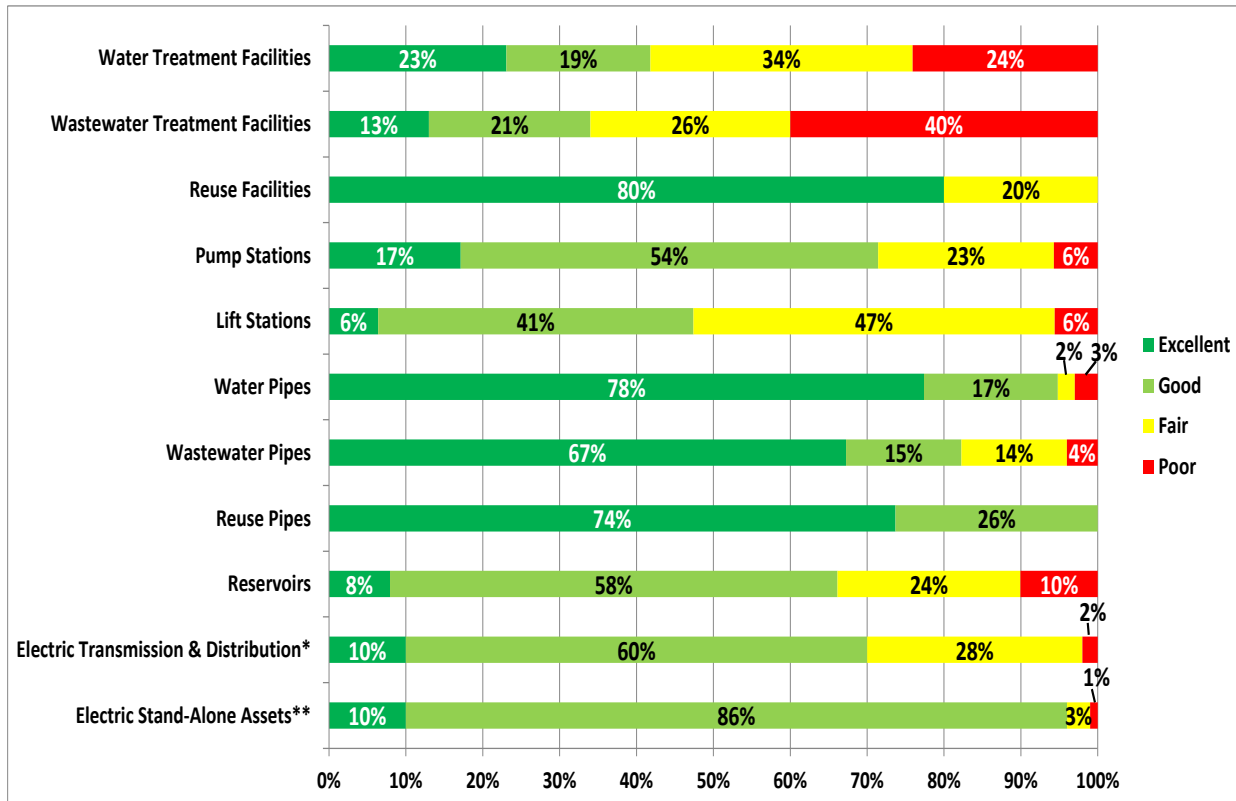
assets. This is a function of the age of those facilities relative to the expected useful life of industrial process equipment. Two of the City's three water treatment plants were built in the 1950s and '60s; its three major wastewater facilities were built in the 1950's, the late '70s , and the mid-'80s. The older

Table 6.1 Infrastructure Asset Inventory

Infrastructure Category	Assets
Water	3 water treatment facilities 3,789 miles of water pipe 38 reservoirs 35 pump stations 3 major wastewater treatment facilities 2,764 miles of wastewater pipe 125 lift stations 4 water reuse facilities 43 miles of water reuse pipe
Electricity	5 power generation facilities 14 electric power transmission substations 60 electric power distribution substations 11,430 miles of electric distribution lines 271,000 power generation, transmission, and distribution assets
Mobility	7,678 lane miles of streets 2,408 miles of sidewalks 37 miles of developed urban trails 450 major bridges (20 feet or longer) 2,496 traffic signals, beacons, cameras, sensors, etc. 730 aviation asset systems at Austin-Bergstrom International Airport
Park Infrastructure	300 parks covering more than 20,000 acres 26 recreation senior centers 212 miles of park trails 25 swimming pools 6 golf courses 78 mixed-use fields, 35 baseball fields, 23 soccer fields, 78 basketball courts, 49 volleyball courts, 124 tennis courts, and 5 disc golf courses 10 stages and amphitheaters
Stormwater Management	705 creek crossings monitored for flood risk Over 791 square miles of creek basins monitored for water quality 496 creek segments monitored for erosion risk 868 stormwater ponds 245 dams and floodwalls 836 miles storm pipes (inventory data collection underway) 42,538 inlet, culvert, headwall, manhole assets (inventory data collection underway)
Public Trees	247,945 trees in right-of-way, parks, and trails

these facilities get, the more they will require extensive rehabilitation. Over time, Austin Water has been able to make targeted repairs at some of these facilities, but at some point, all industrial facilities require major capital investments to ensure continued service.

Figure 6.1 Utility Infrastructure Condition



Source: Austin Energy and Austin Water, 2014 Comprehensive Infrastructure Assessment

*Includes power transmission and distribution facilities and equipment.

**Includes power production facilities, solar panels, and electric vehicle charging stations.

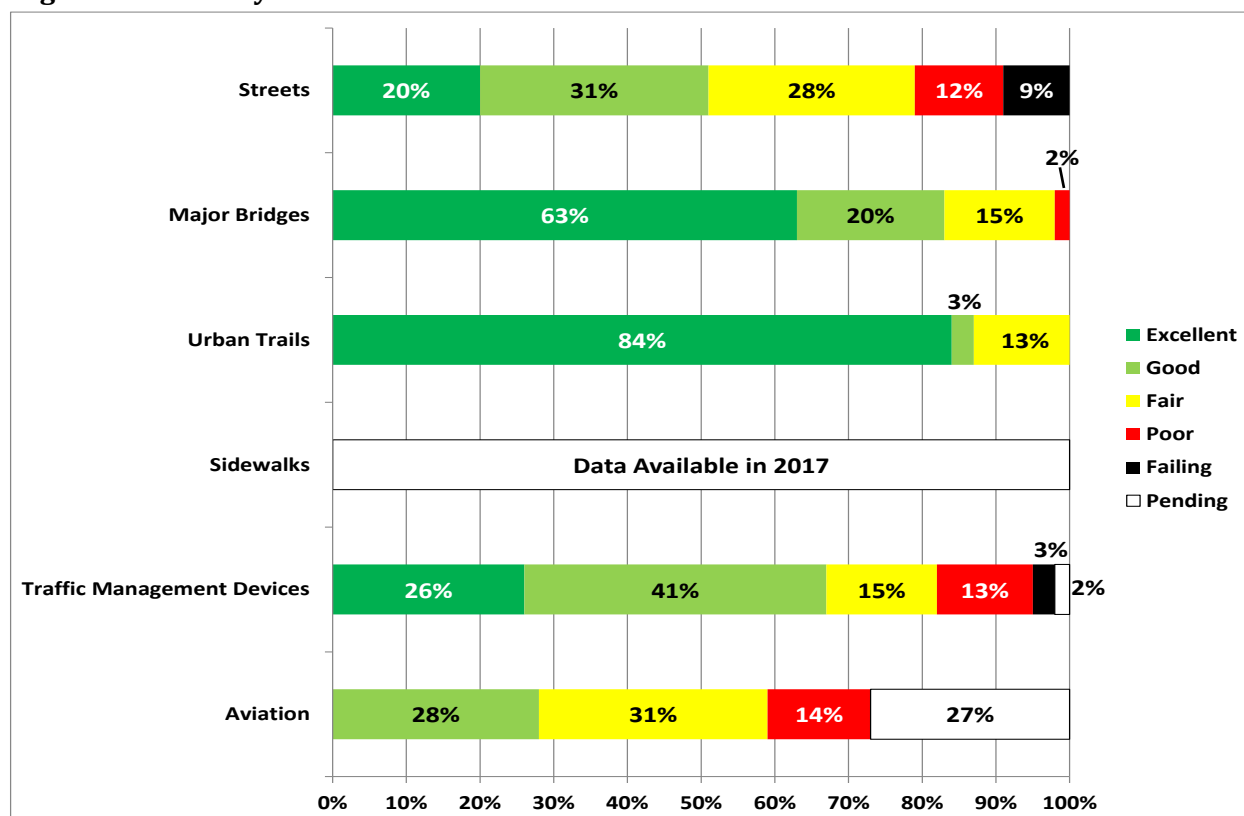
Mobility Infrastructure

A number of infrastructure networks, including streets and bridges, traffic management devices, sidewalks, urban trails, and Austin-Bergstrom Airport, all provide mobility options to Austin residents.

Figure 6.2 summarizes mobility infrastructure condition. While most mobility infrastructure is in excellent, good, or fair condition, poor or failing condition of portions of each type of infrastructure will need to be addressed. For example, 21% of streets are in poor or failing condition; 16% of traffic management devices (traffic signals, pedestrian hybrid beacons, school zone beacons, closed-circuit television cameras, travel time sensors, traffic volume count stations, dynamic messaging signs, emergency vehicle preemption

devices, battery backup systems, and communication system) are in poor or failing condition; and 14% of aviation assets are in poor condition.

The Public Works Department is assessing the condition of its sidewalk network as part of an update to the Sidewalk Master Plan and should have data available in 2017. The condition data will provide another layer of information for the Sidewalks Program in addition to data the department already has from the original Sidewalk Master Plan. The Aviation Department is in the process of assessing condition of its many assets, and will provide updated information in a future update to the Comprehensive Infrastructure Assessment.

Figure 6.2 Mobility Infrastructure Condition

Source: Public Works Department, Austin Transportation Department, and Aviation Department, 2014 Comprehensive Infrastructure Assessment

Park Infrastructure and Public Trees

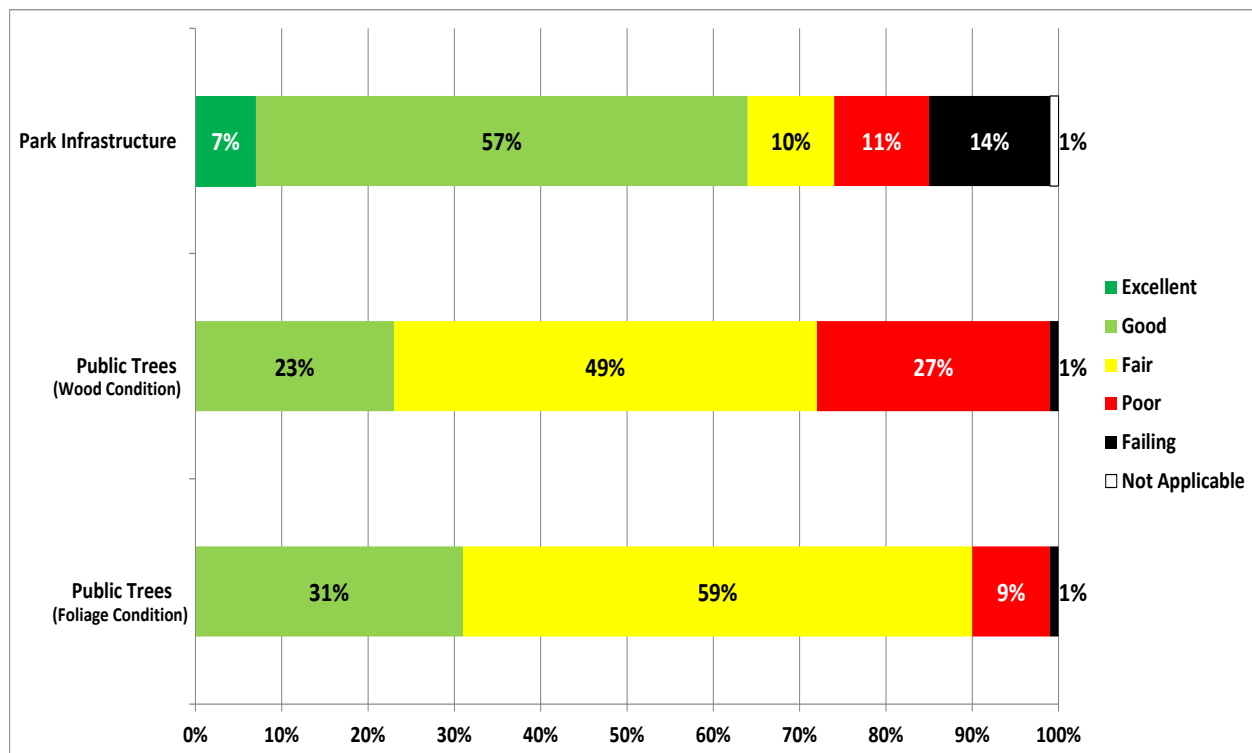
The City manages a variety of park infrastructure assets. The City is also responsible for ensuring the health of more than 247,000 trees in the public right-of-way, parks, and adjacent to trails.

Figure 6.3 summarizes condition for park infrastructure and public trees.

Condition assessment for park infrastructure is not an assessment of the parkland itself, but of those assets (such as swimming pools, splash pads, sport fields, sport courts, and recreation and community facilities) that are placed on parkland to serve specific programming needs. The majority of park assets are in excellent, good, or fair condition, but 25% of park assets are in poor or failing condition. The 25% is mainly attributable to poor or failing condition of portions of the City's swimming pools (which are on average 50 years of age), poor or failing condition of some playgrounds, playscapes, and playground equipment (play structures, swings), or poor conditions at some sport fields and sport

courts. Poor and failing condition of these assets can be traced either to the age of the assets (such as pools) and in some cases, to the lack of resources to regularly maintain assets.

Tree condition is assessed based on standards recommended by the International Society of Arboriculture, and measures the health of the wood and the health of the foliage on the trees. There are a variety of factors that can affect tree condition, including climate (e.g., heat, drought, cold), the effects of exposure to pollutants, and the frequency of regular maintenance and planting of public trees.

Figure 6.3 Condition of Park Infrastructure and Trees on Public Land

Source: Parks and Recreation Department and Urban Forestry Program, 2014 Comprehensive Infrastructure Assessment.

Stormwater Management

The Watershed Protection Department manages infrastructure assets that improve water quality and protect against flooding and erosion. Some assets serve multiple purposes, including managing stormwater flow, protecting against stream bank erosion, and monitoring and protecting water quality. The department is developing assessments and data on infrastructure capacity and is finalizing inventory and condition data on assets like dams, floodwalls, ponds, and thousands of culverts, manholes, and inlets that manage stormwater flow. A future version of the Comprehensive Infrastructure Assessment will include updated information.

Figure 6.4 shows that erosion risk is present in 15% (76 segments) of the 496 creek segments the department monitors regularly. Erosion risk is defined by whether or not erosion threatens to damage structures or infrastructure along creek banks.

Figures 6.5 summarizes estimated flood risk at 705 creek crossings that lie in the 100-year

flood plain as designated by the Federal Emergency Management Agency. The department uses detailed floodplain models to estimate potential flood depth, velocity, and associated flood risk at these crossings. Any creek crossing with a potential flood depth greater than zero feet is considered to have some flood risk that could range from low to very high. Water quality is monitored in creek basins covering a 791 square-mile area rated on a 0 to 100 point scale established in the City's Environmental Integrity Index. Water quality ratings range from very bad (0 to 25) to excellent (87.5 to 100). These ratings represent the water quality condition of the monitored creek, which represents quality in the larger basin draining to that creek. **Figure 6.6** shows that 25% of all land area monitored by the City of Austin drains to creeks with a Fair to Very Bad water quality condition rating.

Figure 6.4 Erosion Risk on Monitored Creek Segments

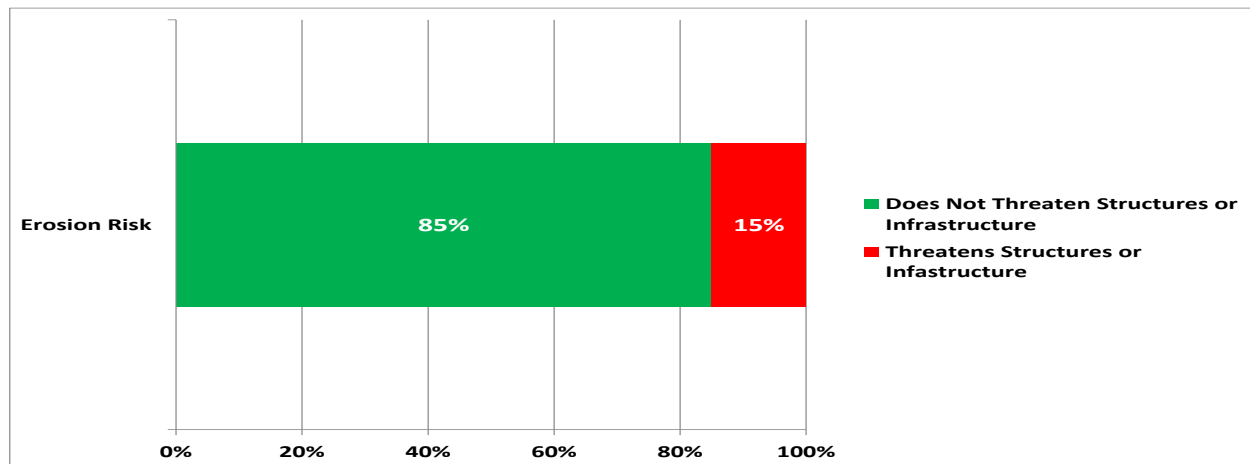


Figure 6.5 Flood Risk at Creek Crossings

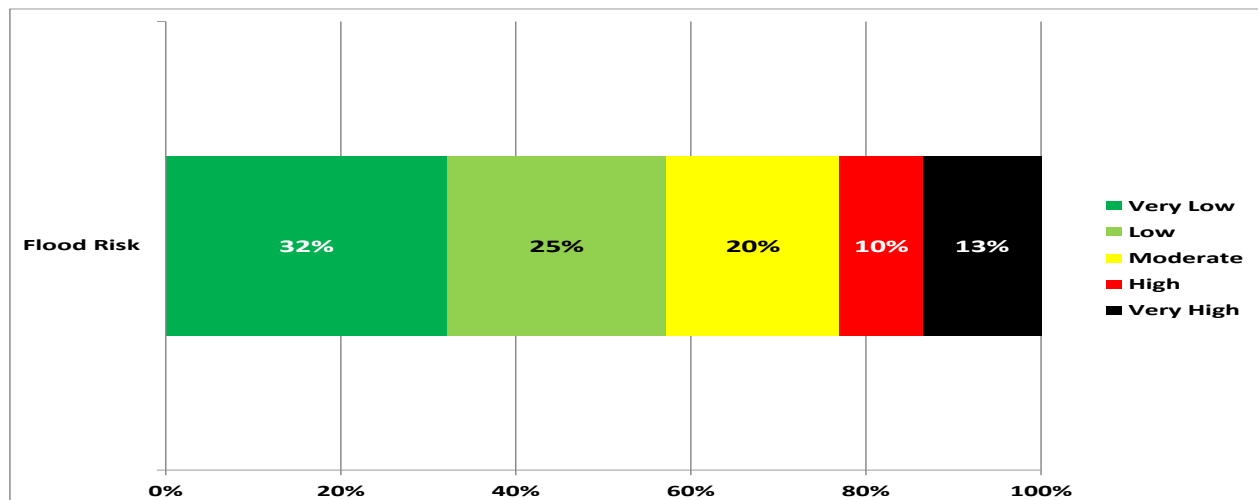
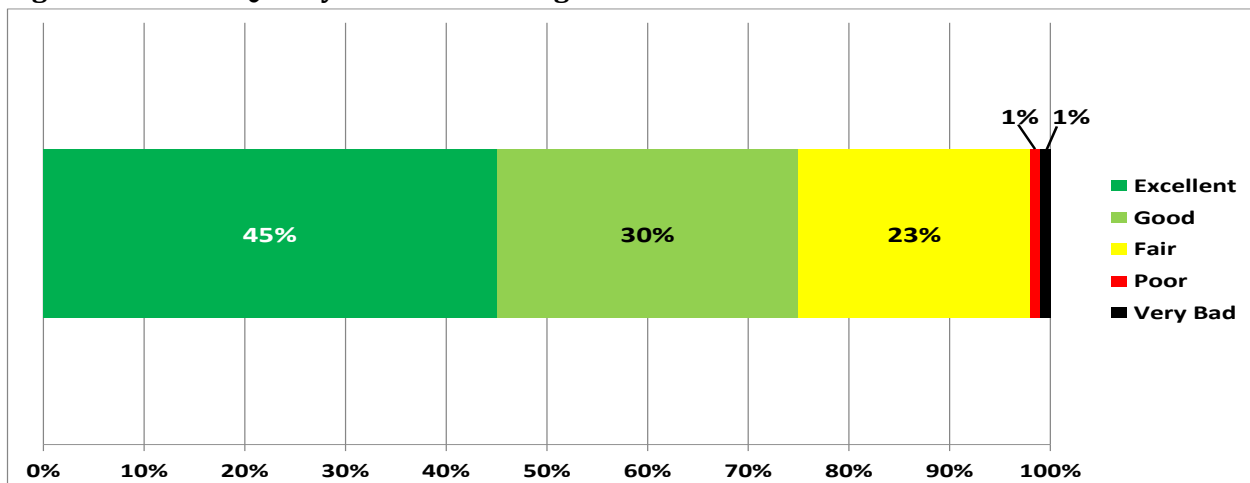


Figure 6.6 Water Quality at Creek Drainage Basins



Source: Watershed Protection Department, 2014 Comprehensive Infrastructure Assessment

City Facilities

The City does not currently have an up-to-date, comprehensive condition assessment of its facilities. In 2011, the City contracted with a private firm (RSP i-SPACE) to evaluate the condition of some City facilities and used self-assessment information from departments on other facilities. Based on the 2011 evaluation process, the City created a 2012 Strategic Facilities Roadmap, which included scenarios and solutions to reduce overcrowding, improve operational logistics, improve space conditions, reduce reliance on leased space, reduce the City's transportation-based carbon footprint, and address future growth and associated space needs. The City also created a Strategic Facilities Governance process to review department facility-related requests in a strategic context to improve alignment with strategic goals, efficiency, and cost effectiveness of future investments in City facilities. In this year's Rolling Needs Assessment, departments have identified the need to rehabilitate a number of facilities, so even without a complete condition assessment, the Rolling Needs Assessment indicates that the need to improve existing City facilities remains important.

Conclusions

The City manages a variety of different types of infrastructure to meet operational responsibilities and provide services to Austin residents. Much of the City's infrastructure is in overall good condition and operating well. If we compare Austin's infrastructure to infrastructure assessed nation-wide by the American Society of Civil Engineers, Austin's infrastructure is in relatively good shape. ASCE's 2013 Report Card for America's Infrastructure gave the country's infrastructure an overall "grade" of D+. A similar report card developed for the state of Texas by the state chapter of ASCE in 2012 resulted in a 'grade' of C. In comparison, approximately 86% of horizontal infrastructure that the City of Austin manages is in Excellent, Good, or Fair condition. On a scale of 0 to 100, that represents a 'grade' of B.

Within individual infrastructure types, however, the results reflect a different condition. As the Comprehensive Infrastructure Assessment demonstrates, portions of some infrastructure categories are classified in poor or failing condition. These include:

- Water treatment facilities (24% in poor condition)
- Wastewater treatment facilities (40% in poor condition)
- Streets (12% in poor condition, 9% in failing condition)
- Traffic management devices (13% in poor condition, 3% in failing condition)
- Park infrastructure (11% in poor condition, 14% in failing condition)
- Wood condition of public trees (27% in poor condition, 1% in failing condition)
- 10% of creek crossings at high risk for flooding, 13% at very high risk. This is particularly important given Austin's long history of flash floods, which have resulted in massive property damage and loss of life.

All of these infrastructure categories will require additional investment to ensure that they serve the residents and ratepayers of Austin efficiently, and protect the health and safety of the entire community.

Because of limited funding options and the magnitude of capital renewal needs, the City will need to continue making substantial investments in capital renewal efforts. However, the City will also need to balance that need with investments in new infrastructure capacity to meet the service demands of a growing population as well as strategic investments to further planning priorities and other City priorities. Doing this requires a long-term approach and exploration of additional funding sources that will allow the City to meet all of these important goals.

Chapter 7

Strategic Investment Analysis

The Strategic Investment Analysis is a geospatial analysis that allows us to see the alignment of identified future capital improvement needs and City plans and policies. The Strategic Investment Areas Map (**Figure 7.4**) that results from this analysis indicates strategic areas where needed capital investments identified in the Rolling Needs Assessment (**Chapter 8**) have the potential to address recommendations from multiple City initiatives for greater community outcomes. The analysis then compares these strategic areas with projected growth and development to inform creation of an effective location-based strategy that leverages private investment, where possible, to achieve the City's planning and policy goals.

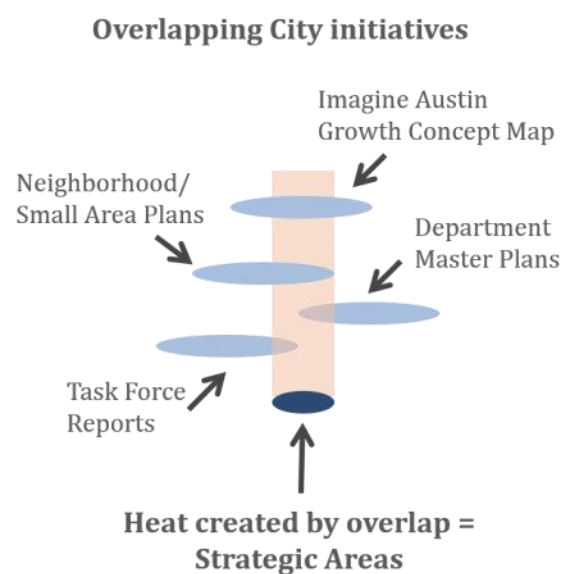
Strategic Investment Analysis

Methodology

The Strategic Investment Areas Map is created by combining the Strategic Areas Map (**Figure 7.2**) with the Rolling Needs Assessment Map (**Figure 7.3**). The analysis begins with development of the Strategic Areas Map, which depicts the geospatial relationship of the City's many initiatives related to the Capital Improvement Program. Initiatives in this sense are City Council or department-approved planning documents and reports that contain recommendations to invest in or focus on certain capital improvements. Each of these planning or policy initiatives has established community expectations that the recommendations will be considered in Capital Improvement Program decision-making. **Table 7.1** shows the mapped City initiatives included as layers in the Strategic Investment Analysis.

To create the Strategic Areas Map, City staff identifies the geographic target areas for each of the City initiatives and includes them as a layer in the map. Initiative target areas are defined in many ways, and may include specific neighborhood boundaries, the location of specific recommended infrastructure improvements or infrastructure gaps from the adopted plan or report, or the demographic composition of an area, to name a few. The geographic areas with the greatest number of overlapping City initiatives are indicated by a darker shade of purple, showing the degree to which a capital investment in an area can potentially be coordinated with or advance several City initiatives. **Figure 7.1** represents the layering process used to identify Strategic Areas.

Figure 7.1



The Rolling Needs Assessment Map (**Figure 7.3**) displays department-identified infrastructure needs, organized by infrastructure categories. This map includes all capital improvement projects and programs in the Rolling Needs Assessment (**Chapter 8**) that can be mapped. Examples of projects or program needs that cannot be mapped are those that do not yet have determined locations. These needs include the Rental Housing and Development Assistance Program, which allocates funding based on an application process and land acquisition for city facilities where the exact location will be determined by real estate market and availability of land at the time of purchase.

The Strategic Investment Areas Map (**Figure 7.4**) is created by “cookie cutting” the Rolling Needs

Assessment Map (**Figure 7.3**) out of the Strategic Areas Map (**Figure 7.2**), so that the geographic location of the CIP programs and project needs in the Rolling Needs Assessment Map show the degree of overlap of initiatives from the Strategic Areas Map. This shows where already identified, unfunded needs from the Rolling Needs Assessment have the potential to be designed to meet the goals or recommendations of multiple adopted City plans or policies. The areas of high/very high overlapping City initiatives in the Strategic Investment Areas Map are then compared with the geographic distribution of anticipated future population growth and anticipated development as shown in **Figure 3.2 (Chapter 3)** and **Figure 3.3 (Chapter 3)**.

Table 7.1

Mapped City Initiatives	
African American Quality of Life Report	Families & Children Task Force Report
Austin Police Department Restore Rundberg Initiative	Hispanic Quality of Life Report
Austin Community Climate Plan	Housing-Transit-Jobs Initiative
Austin Strategic Mobility Plan	Imagine Austin Comprehensive Plan
Austin Urban Forest Plan	Library Facilities Master Plan
Austin Water Conservation	Neighborhood Housing & Community Development Plan
Austin Water Utility Strategic Infrastructure Plan	Neighborhood Plans
Bicycle Master Plan	Other Small Area Plans
Capital Area Metropolitan Planning Organization Plan	Parks & Recreation Department Long Range Plan
Colony Park Sustainable Communities Initiative Master Plan	Parks & Recreation Department Park Master Plans
Commercial Public Improvement Districts	Public/Private Redevelopment Projects on City-owned land
Community Health Action/Community Health Implementation Plan	Public Transit
Complete Streets	Sidewalk Master Plan
CreateAustin Cultural Master Plan	Travis County Colorado River Corridor Plan
Cultural Districts	Urban Trails Master Plan
Entertainment Districts	Watershed Protection Master Plan
Flood Mitigation Task Force Report (<i>New in 2016</i>)	Vision Zero
Soul-y Austin (<i>New in 2016</i>)	Age Friendly Austin (<i>New in 2016</i>)

How the Strategic Investment Analysis is used

The Strategic Investment Analysis shows us how programs and projects in the Rolling Needs Assessment—which are derived from department prioritization based on Key Drivers for Capital Investment (urgent needs, capital renewal, service demands, policy and planning priorities)—collectively aligns with and has the potential to advance City policies and plans. Because responsibility for the identification of future Capital Improvement Program projects to include in the Rolling Needs Assessment lies primarily with program managers in the various City departments, the Strategic Investment Analysis shows how future planned investments come together in a location-based context to form the City's Capital Improvement Program and how, collectively, they correlate geographically to Imagine Austin and related initiatives.

The Strategic Investment Areas Map, when compared with projected growth, also provides insight into:

- Places where the City may need to plan for and provide infrastructure to prevent the anticipated degradation of services due to growth or the deteriorating condition of assets in order to maintain quality of services over time.
- Places where the City can coordinate or leverage planned future City capital investments with anticipated future private infrastructure investment to better advance City initiatives.
- Places where future the City's capital investments could spur growth or change development patterns in ways envisioned in adopted City plans and policies.

It is important to note that the primary purpose of this analysis is to evaluate the relationship between policy and planning priorities and Capital Improvement Program projects identified in the Rolling Needs Assessment. An analysis of emerging projects and population projections in conjunction with the Strategic Investment Analysis helps refine the capital investment approach to meet policy and planning priorities in strategic areas by identifying where the

City may be able to leverage opportunities with future private development. However, policy and planning priorities is only one of a larger set of Key Drivers used to identify future capital needs throughout Austin. The other Key Drivers—urgent needs, capital renewal, and service demands—must also be addressed to take care existing infrastructure systems and to maintain acceptable service levels. These are reflected in the Rolling Needs Assessment Map (**Figure 7.3**).

Strategic Areas with High/Very High number of overlapping City initiatives

The 11 areas listed in **Table 7.2** are identified on the Strategic Investment Areas Map as areas where Capital Improvement Program investment needs from the Rolling Needs Assessment are located in areas where there are a high/very high overlap of City initiative priorities from the Strategic Areas Map. The areas are listed in order of the degree to which these established and approved plans and policy initiatives overlap each other from highest to lowest. These 11 identified areas are all located within Imagine Austin Centers and/or Corridors and are in target areas for City initiatives that relate to each of the Imagine Austin priority programs. When scoping and designing

What the Analysis does and what it doesn't do

What it does: The Strategic Investment Analysis provides a way to identify areas in Austin where infrastructure needs could support Imagine Austin and related initiatives. These maps facilitate City staff and the community to work together and leverage expenditures for capital projects in these strategic areas.

What it doesn't do: The Strategic Investment Analysis does not prioritize CIP projects nor does it mean that investments should only be made in strategic areas. Capital improvement needs and priorities exist throughout the city. The maps are a data-driven staff analysis of existing needs and priorities intended to facilitate strategic decision-making.

Capital Improvement Program projects in these areas, it will be important to evaluate opportunities to implement recommendations and achieve desired outcomes from all overlapping City initiatives.

Table 7.2

Strategic Areas with High/Very High number of overlapping City initiatives
Downtown
MLK Transit Oriented Development (TOD) District
Lamar Blvd – entirety of corridor
Plaza Saltillo TOD
North Lamar/Rundberg area
Riverside Drive – entirety of corridor
Airport Blvd – entirety of corridor
North Burnet Gateway
Crestview Station TOD
South Congress Boulevard – entirety of corridor
South First from Lady Bird Lake to Stassney Lane

Figure 7.2 Strategic Areas Map: Overlap of City Initiatives

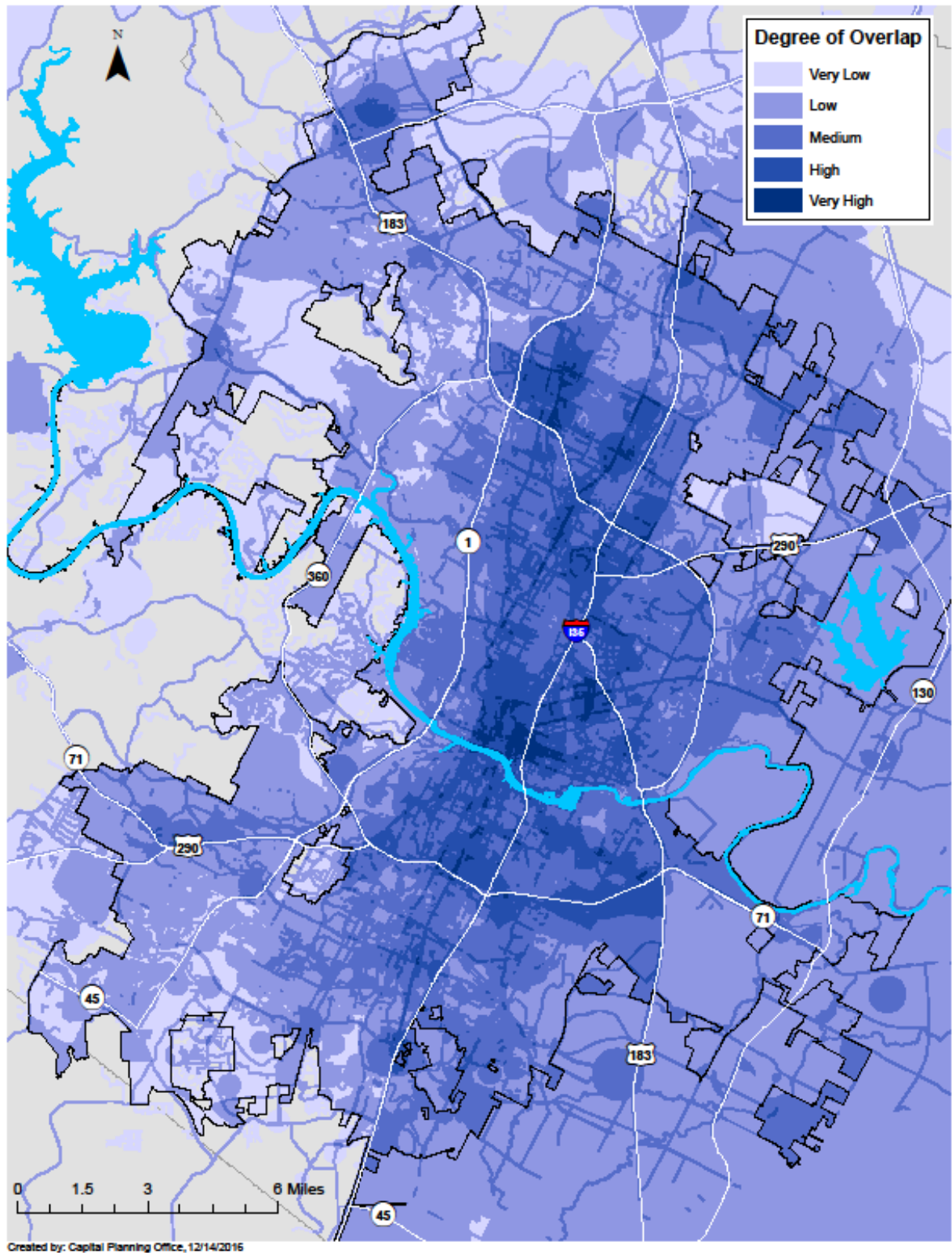


Figure 7.3 Rolling Needs Assessment Map

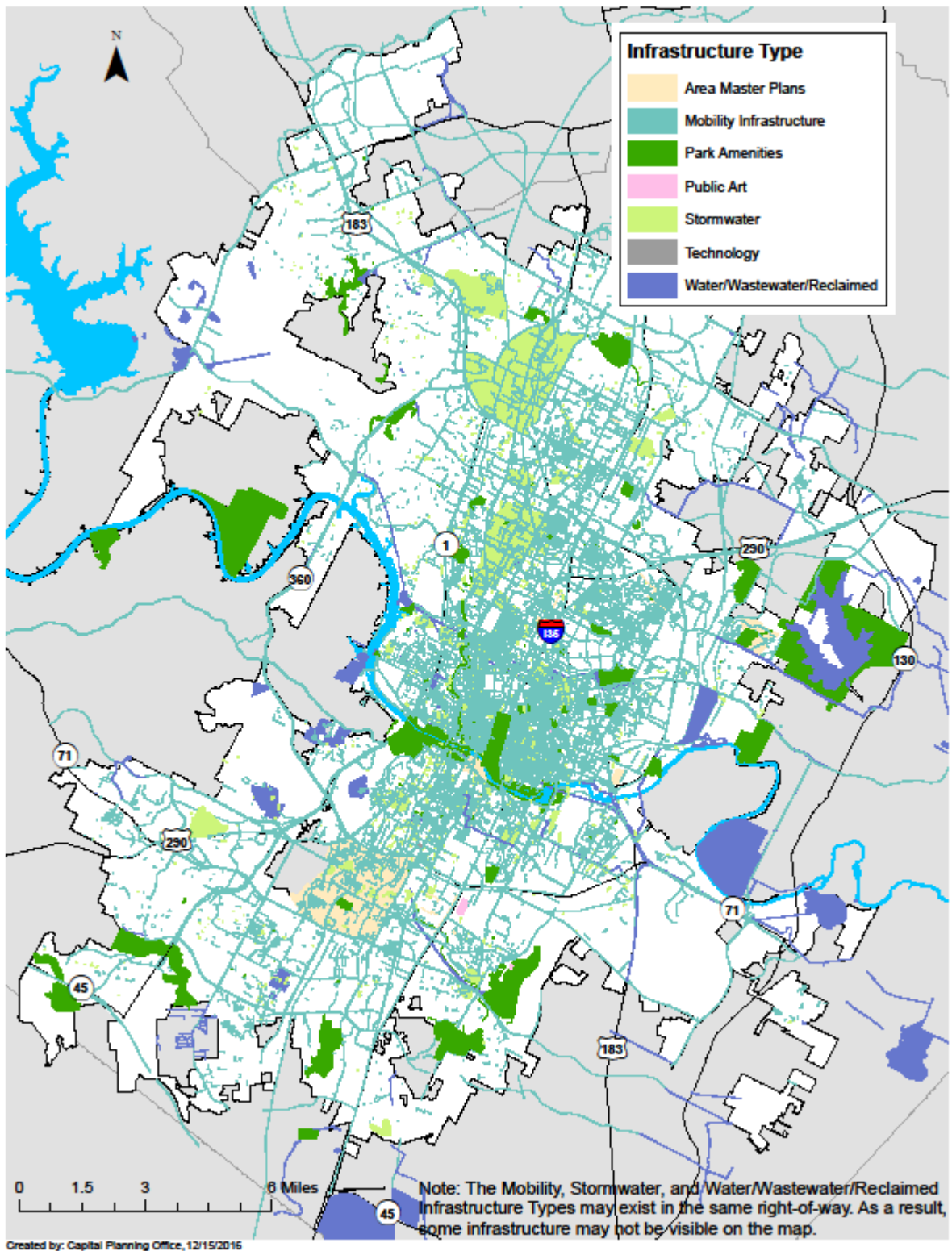
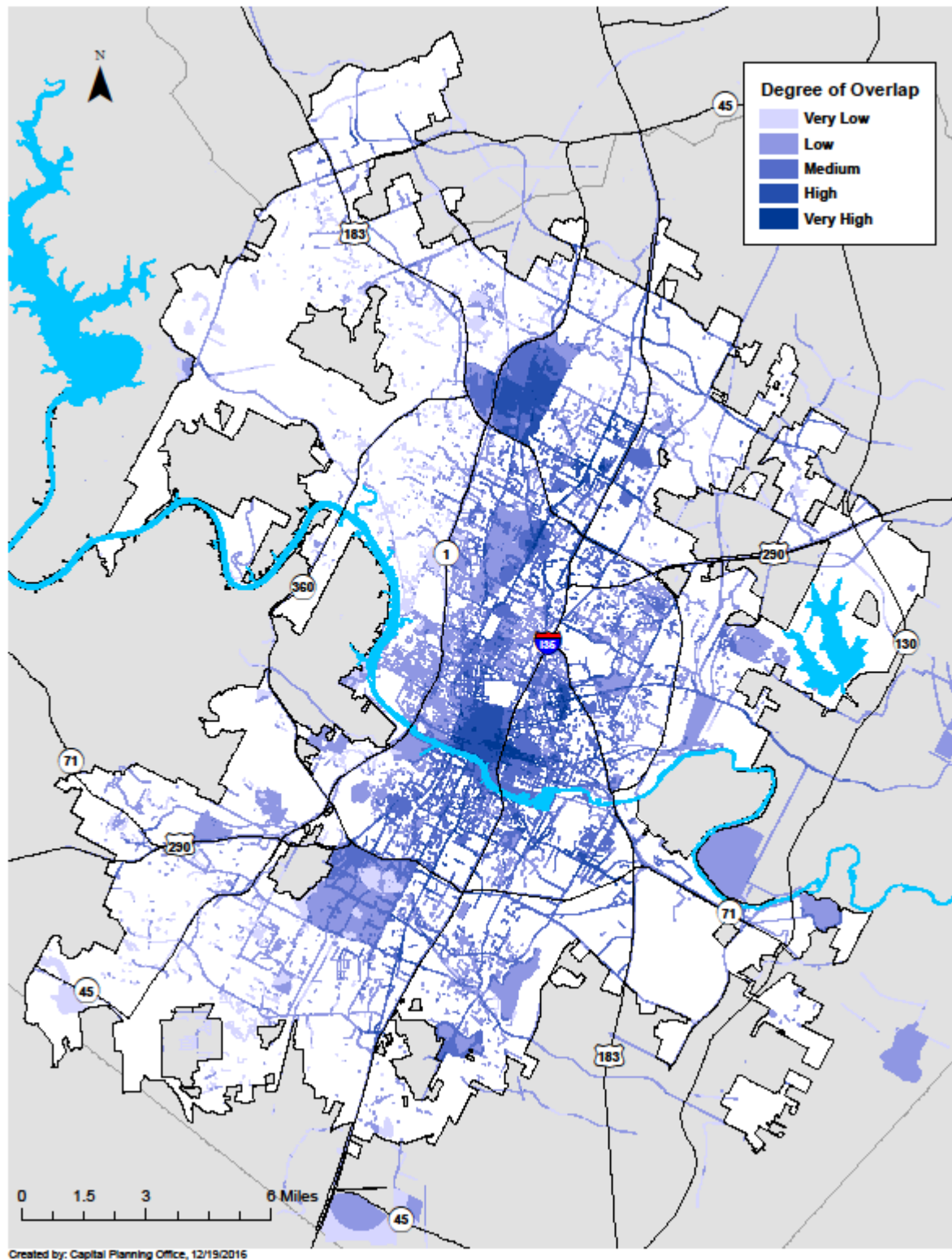


Figure 7.4 Strategic Investment Areas Map



Geographic Patterns

Patterns emerge by evaluating the Strategic Investment Areas with projected growth patterns, emerging projects, past growth, and capital investment. These patterns are described below and correspond to non-concentric rings starting in the downtown area and moving outwards. There are approximately five geographic ring patterns emerging (**Figure 7.5**). The following lists each ring, starting with the smallest and most inner-city ring then moving outward:

- **Ring 1:** The Downtown area is roughly bounded by MLK Jr. Boulevard to the north, IH-35 to the east, Lady Bird Lake to the south, and Lamar Boulevard to the west. This includes the Downtown strategic area.
- **Ring 2:** The Central Urban Core area is roughly bounded by Anderson Lane to the north, US Hwy 183 to the east, Barton Springs Blvd. / Riverside Drive to the south, and Mopac to the west. High/very high strategic areas include the Plaza Saltillo TOD, MLK TOD, Crestview Station TOD, Airport Corridor (including Highland Mall redevelopment) and portions of the South First and South Congress corridors (including South Shore Central planning area) and central portions of the North and South Lamar Boulevard corridors.
- **Ring 3:** The Outer Urban Core area is roughly bounded by Parmer Lane to the north, the MOKAN-Elgin rail line and portion of US 183 to the east, Ben White Boulevard to the south, and Mopac to the west. High/very high strategic areas include the North Burnet/Gateway area, North Lamar/Rundberg area, east Riverside Drive Corridor, south First Street Corridor and South Congress corridor from Barton Springs to Ben White and the remainder of North and South Lamar Boulevard.
- **Ring 4:** The Western Suburban area is roughly bounded by Anderson Mill Road/Grand Avenue Parkway/FM 1825 to the north, the MOKAN-Elgin rail line and then US 183 to the east, Slaughter Lane to the south, and FM 1826/SH 71/RM 620 to the west. High/very high strategic areas include South Congress and South First

Street corridors from Ben White to Slaughter Lane.

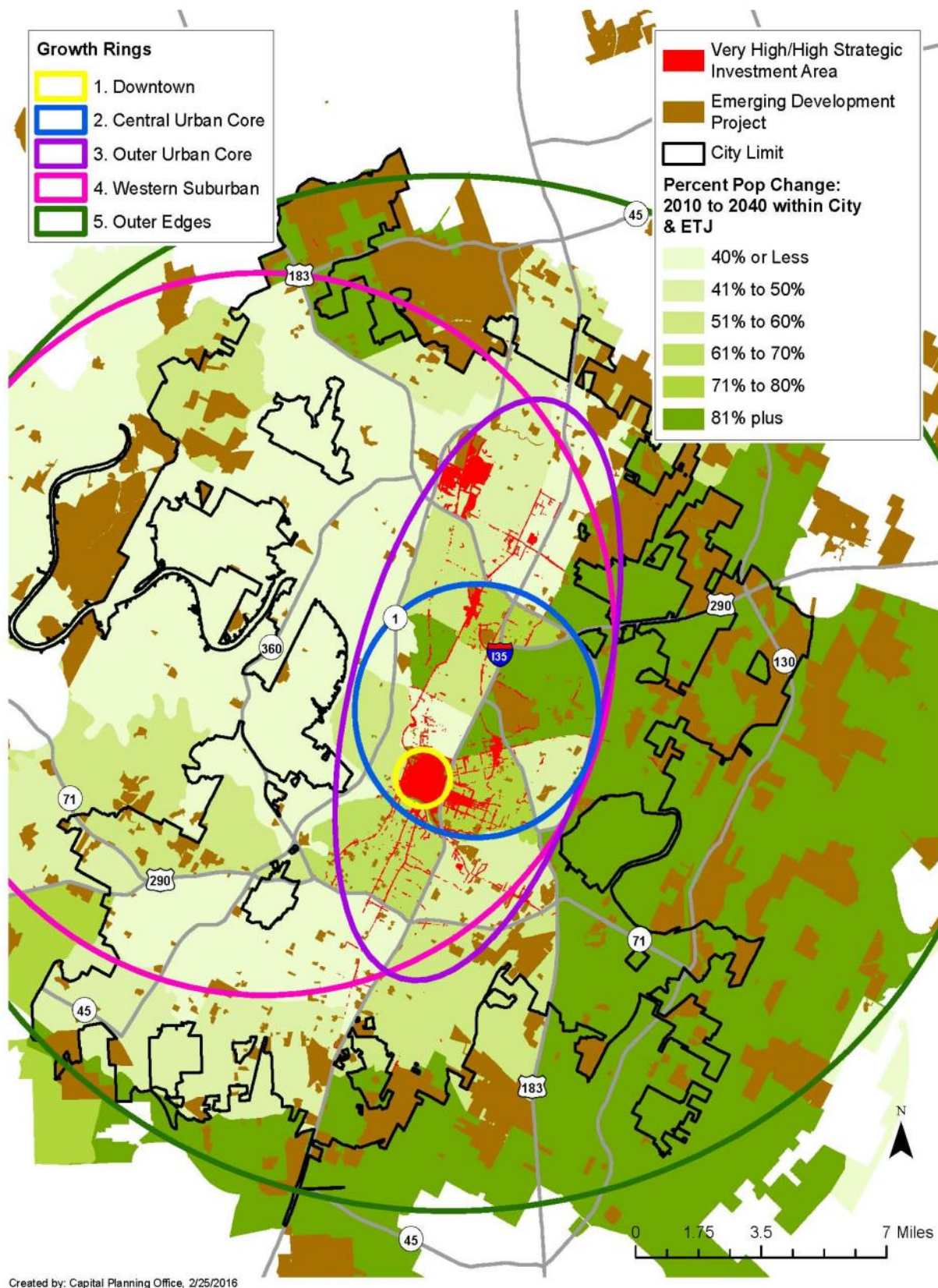
- **Ring 5:** The outer edges of the city are roughly bounded by the City's extraterritorial jurisdiction. A portion of MLK Boulevard (FM 969) from US 183 to just east of FM 3177 is identified in this analysis as a high/very high strategic area for furthering multiple planning and policy goals.

Generally, redevelopment pressure continues in the Downtown area (Ring 1), but is quickly moving outward, typically along commercial corridors. Significant redevelopment has already occurred in downtown and the immediate surroundings, with increasing redevelopment and a significant number of emerging development projects planned in the Central Urban Core (Ring 2), and with more intermittent projects in the next several rings. High growth is also projected in the outer edges of the city (Ring 5) where "greenfield," or new, development can occur on large tracts of former farmland, ranchland, or open space.

Similarly, the pattern of identified future capital improvement needs in the Rolling Needs Assessment also relate to these rings. Capital renewal needs are greatest in the Downtown and Central Urban Core areas (Rings 1 and 2) of the city where infrastructure condition is most impacted by the age of assets. Likewise, the increased population growth and density in these rings represented by the darker brown colors on **Figure 7.5**, results in an increase for service demands that also drive capital investment needs. Increased service demands for infrastructure occur in tandem with growth and development so the greatest needs are not only occurring in the first two rings, but also are occurring in the outer edges (Ring 5) where new greenfield development is taking place, as seen in both population projections and emerging projects. However, the highest overlap of planning and policy priorities converges primarily in Imagine Austin Centers and Corridors in the Downtown, Central Urban Core and Outer Central Core areas (Rings 1, 2, and 3).

City and private development have made significant past capital investment, both strategic and

Figure 7.5 Development and CIP Rings Analysis



driven by routine capital renewal and service demands, in downtown (Ring 1) during the last 10 years or more. For example, the City has partnered with private investment to transform the Seaholm District on the west side of downtown Austin and has used public funds to construct the Waller Creek Tunnel, which brings properties out of the floodplain and makes the Waller Creek corridor developable. These investments have physically transformed the areas. In the next ring out, the Central Urban Core, a few strategic capital investments have been made to address planning and policy priorities. This is exemplified most notably by the City's improved connections to high-capital transit stops in Transit-Oriented Development areas to leverage Capital Metro's high-capacity transit investments. However, most past investment and identified future needs in this area (Ring 2) as well as in the other rings (Rings 3, 4 and 5), primarily focus on capital renewal and service demand-based investments to provide a basic level of infrastructure.

Conclusions

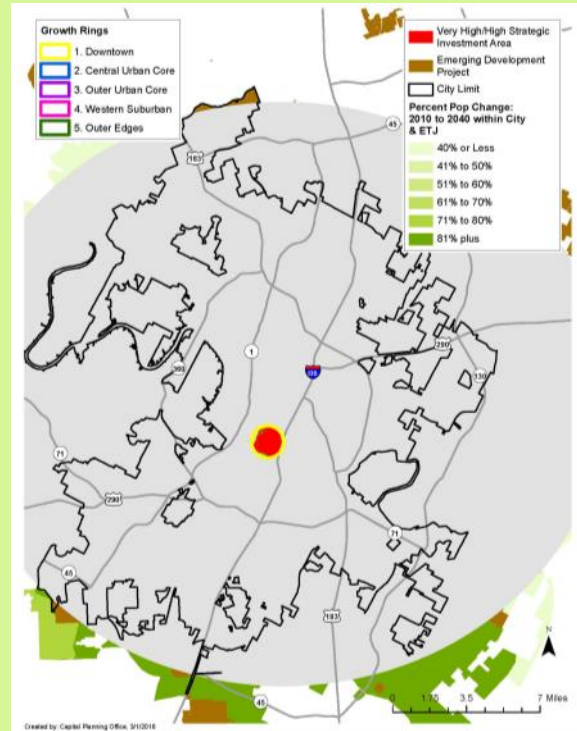
The Strategic Investment Analysis along with population projections and emerging projects help inform the following conclusions and recommended capital investment approaches to further the City's adopted planning and policy priorities as well as efficiently prepare for and respond to growth and the associated service demands on CIP infrastructure.

The City will continue to make routine capital improvements in all areas of Austin using departmental prioritization processes for ongoing capital programs, to ensure that existing infrastructure continues to provide services the public expects. These investments aim to bring infrastructure in all areas of the city up to acceptable levels of service. Departments will continue to explore opportunities to employ project enhancements to meet planning and policy goals, when possible, while also still meeting the objectives of the project and remaining within the project's budget. However, addressing the many adopted planning and policy priorities identified in the strategic areas requires an approach that goes beyond the routine allocation of capital resources through ongoing programs to meet capital renewal needs and service demands.

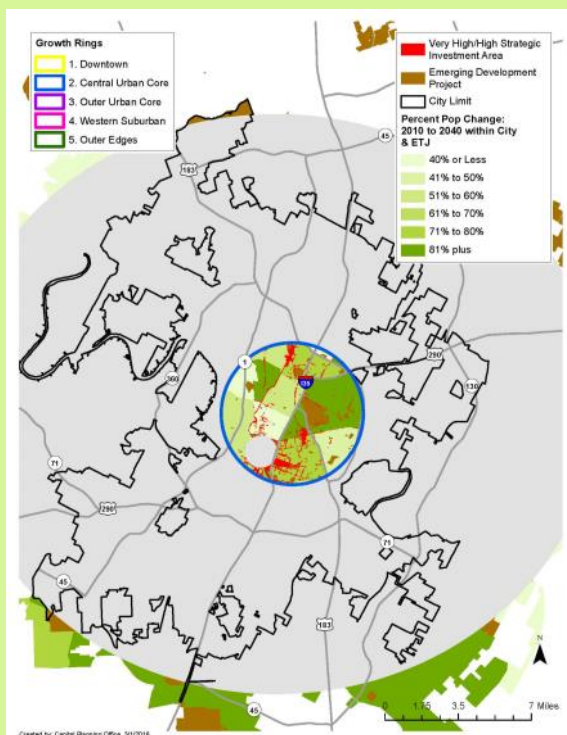
The City is beginning to employ a location-based capital planning framework for identifying a coordinated set of strategic investments to implement the Imagine Austin vision and address other City initiatives. This is needed to go beyond what can be accomplished through incremental enhancements to routine capital renewal- and service demand-related capital improvements. As efforts continue, the City will review the set of strategic investments each year as part of the Long-Range CIP Strategic Plan annual update to adjust projects if needed to respond to the City context and CIP needs at the time.

In Downtown (Ring 1), the approach to further policy and planning priorities in the strategic areas is to:

Look for funding for the strategic projects already identified in the Rolling Needs Assessment to complete or complement other recent investments, and to continue to leverage private and nonprofit investments in the area to create complete communities.



Building on past planning, community involvement, CIP project development, and establishment of community partnerships, departments have identified a number of strategic projects to advance planning and policy priorities in the Downtown area. This includes identified strategic investments in stormwater management, street reconstruction with enhanced mobility and streetscapes, and continued support for the Waller Creek and Seaholm Districts in coordination with private development and the Waller Creek Conservancy.



In the Central Urban Core (Ring 2), which has very high population growth projections and multiple emerging projects, the approach to further policy and planning priorities in the strategic areas is to:

Develop a set of specific strategic projects or group of projects in preparation for near-term funding opportunities to leverage the planned private development and help these areas evolve into the complete communities envisioned in Imagine Austin.

In many of the strategic investment areas, several departments have identified strategic program needs, but further project development and prioritization is needed to identify specific priority projects in preparation for funding opportunities. For example, implementation of transportation corridor mobility plans is identified as a strategic program need in the Rolling Needs Assessment. The City is beginning a coordinated effort across multiple departments to identify ways to overcome barriers to investment in strategic areas so that a strategic set of projects can be identified and prioritized to reach the vision outlined in the Corridor Development Program plans within a constrained right-of-way.

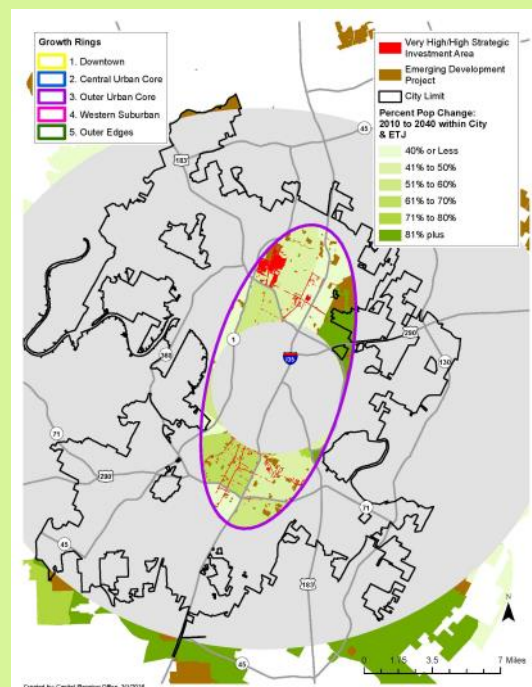
Proactively reach out to the developers of emerging projects in the area to identify opportunities to partner with or leverage private development to address the City's routine and strategic Capital Improvement Program needs.

Ring 2, like the Downtown Ring, has older infrastructure assets that may need to be retrofitted and upgraded to accommodate the increased density associated with emerging projects. Several very large development projects, which if built as proposed, include the ACC Highland Campus with 1,250 residential units, Capital Metro's Plaza Saltillo with 800 units, and Crestview Station with 1,350 residential units. The City's land development regulations require new development to contribute to infrastructure upgrades needed for the project. However, because of the nature of infill development, these private contributions to infrastructure can result in disconnected, incremental changes to the City's existing infrastructure network in an area.

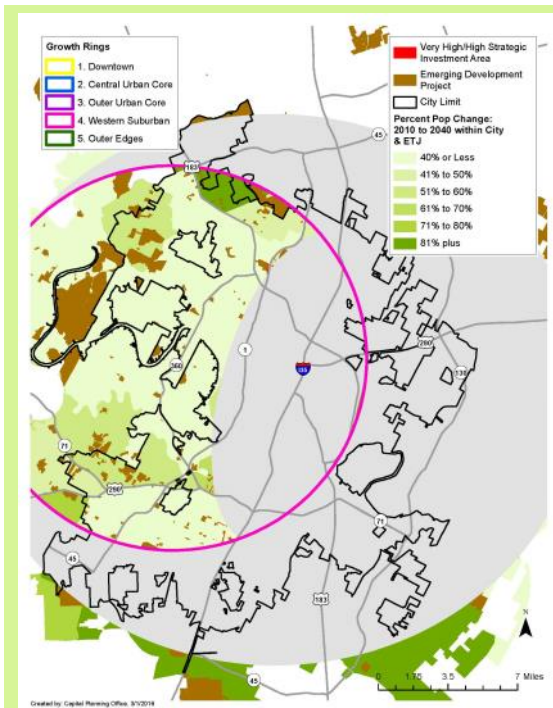
There are approximately 132 emerging development projects within the Central Urban Core and Downtown rings. By partnering developers' required private development infrastructure investments with the City's identified CIP needs in an area, the City can enhance the ability of these incremental public and private investments to provide for a seamless transition between the investments and further the Imagine Austin "complete communities" concept.

In the Outer Urban Core (Ring 3), in areas projected for medium population growth and which is also starting to see emerging projects, the approach to further policy and planning priorities in the strategic areas is to:

Be prepared to partner with planned and anticipated private development as emerging projects start moving forward and opportunities arise through the development review process. By doing so the City can efficiently address anticipated infrastructure needs that occur with population growth and density as well as further planning and policy goals.



A coordinated plan for sequencing for future investment across multiple infrastructure types is needed to respond to the incremental nature of private development and public investment as the area evolves over time. This will help staff working with private development to understand the City's future plans and needs for investment and look for alignment with development as it occurs. As major development and redevelopment occurs, the City will identify priority Capital Improvement Program needs in the area and have matching funds to leverage private development. As an example, the City is evaluating district-based Capital Improvement Program tools and solutions for stormwater management and parking management as methods for private development and the City to partner for more efficient allocation of resources within strategic areas. These examples of solutions not only address basic needs, but turn into strategic projects that can transform an area by focusing on creating more community assets and less on building individual stormwater ponds or parking spaces.



In areas where lower population growth is anticipated and fewer emerging projects are planned, including most of the Western Suburban area (Ring 4) and the North Lamar/Rundberg area in the Outer Urban Core (Ring 3) the approach to furthering policy and planning priorities in these areas is to:

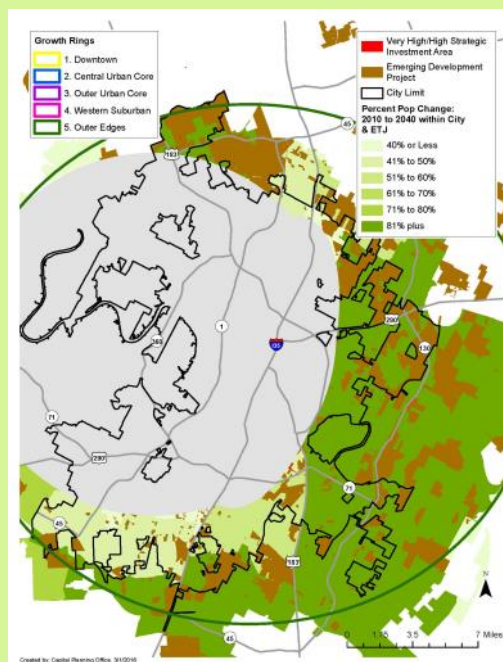
Identify opportunities to put specific public investments in the strategic areas to achieve planning and policy priorities and to support multiple community outcomes. Evaluate partnership opportunities with other public entities and non-profits to provide capital investments to achieve goals.

In the North Lamar/Rundberg area, the City and its public partners will need to evaluate opportunities to locate needed City or other governmental facilities and infrastructure improvements in the area as one mechanism to address employment, reduce crime, and meet other social needs in the area in alignment with the overlapping City initiatives in the area, including North Lamar Combined neighborhood plan, North Austin Civic Association neighborhood plan, the Restore Rundberg initiative, the Hispanic Quality of Life Report, and others.

Many of the other strategic areas in these rings include the outer reaches of major corridors (South First Street, South Congress Avenue, North Lamar Boulevard) which were constructed by TxDOT many years ago and do not meet the City's current standards for storm drain, pedestrian and bicycle mobility infrastructure. Departments should seek grants or other partnership opportunities to address the significant costs of storm drain improvements needed to implement many of the mobility and safety needs identified in the Rolling Needs Assessment.

In the outer edges (Ring 5), where significant population growth is anticipated and quite a few of industrial and mixed use emerging projects are planned, and where there are fewer existing or approved City plans to reference, the approach is to conduct long-range planning to prepare for the anticipated increase in service demands in this area due to future growth.

Invest in long-range planning for annexation and infrastructure investment to facilitate complete communities development patterns in upcoming greenfield development. Use public infrastructure investment to support planning and policy goals.



This includes public investment in the Colony Park area, where substantial community planning has already occurred. Public investment in facilities and infrastructure in the Colony Park area will help facilitate the type of complete community development not yet achievable through the current real estate development market.

Along SH 130, from US 290 to SH 71, there are several mixed use developments planned that will include a large number of single-family homes, multifamily units and commercial uses. If these approved projects develop as planned, the SH 130 area will see approximately 16,000 new single family homes alone. Most of this area is outside of the city limits and in the extra-territorial jurisdiction where the City has limited regulations. The City will need to work closely with the County, Capital Metro and CAMPO to ensure infrastructure is adequately planned for and ensures complete communities are developed.

Evaluate the availability and condition of infrastructure in areas where extensive greenfield development is expected.

Coordination of long-range planning for the provision of infrastructure across multiple departments and other entities should occur in these areas before the individually planned development of multiple new greenfield sites collectively limit opportunities, particularly for mobility connectivity and open space protection.

Chapter 8

Rolling Needs Assessment

The Rolling Needs Assessment identifies the City's anticipated future capital needs over a period of 10 years or more and provides a platform for departments to engage in long-range planning as well as look for opportunities to coordinate capital improvements. The Rolling Needs Assessment also communicates infrastructure needs to decision-makers and serves to better inform them as funding or partnership opportunities arise. Inherently, there needs to be flexibility in capital planning to allow the City to respond to changing circumstances and policy direction as well as take advantage of new opportunities. For this reason, the Rolling Needs Assessment is updated annually to reflect new and emerging factors affecting the Capital Improvement Program as well as any necessary changes to priority needs.

What you'll find in the Rolling Needs Assessment Detail Pages

The Rolling Needs Assessment Infrastructure Category Detail Pages, beginning on **page 67** of this chapter, provides a catalog of the City's ongoing capital program needs on the horizon over the next 10 years or longer. These pages provide details on the types of ongoing capital improvements that the City makes to maintain the condition of existing infrastructure and keep pace with service demands. The pages also contain information on strategic capital investments that have been identified through department-level or other organization-level planning processes, City Council direction and regional coordination, among other avenues.

The capital needs collected through the Rolling Needs Assessment process are organized by infrastructure category. **Table 8.1** is a list of infrastructure categories and associated departments. Each section includes a description of department roles in capital improvements for that infrastructure category, a list of future capital needs, including both ongoing programs and strategic investments, descriptions of the identified needs, and typical CIP funding sources used to fund the capital improvements. Departments provide the information in the Rolling Needs Assessment. They provide highlighted future project needs within ongoing or strategic capital programs to illustrate the types of projects the department typically undertakes within that capital program and in some cases to identify planned projects on the horizon. Multiple departments may sometimes submit highlighted needs for similar projects. In those situations, the departments will engage in additional coordination, planning, and project development to determine roles and create a unified project that is ready for future funding opportunities.

Some ongoing capital programs with future capital needs listed in this Rolling Needs Assessment have a dedicated funding source that is anticipated to accommodate the ongoing program needs over time. This is common for most enterprise departments, which receive rate revenues or fees for service. The speed at which those future needs may be addressed depends on projected revenues and prioritization of funds over time. For most general government departments, ongoing programs will need additional funding sources, such as voter-approved bonds, non-voter approved debt, partnerships, or grants over the next 10 years or longer to continue operations. In all

cases, projected capital investment needs and opportunities typically exceed funding availability, as is common with municipalities throughout the nation.

How the Rolling Needs Assessment is used

Collecting future capital needs and planned projects during a period of 10 years or longer into one document provides greater transparency for decision-makers and the public about the breadth of need for future capital improvements throughout the city. The Rolling Needs Assessment facilitates early coordination of potential capital investments among

City departments and between the City and other public and private entities. It provides a venue for public feedback on the direction of the Capital Improvement Program at an early stage of development and supports the development of a long-term funding strategy to address prioritized capital needs. This process will allow the City to have a current list of identified capital needs ready when funding opportunities arise. The conclusions and strategies contained in the Long-Range CIP Strategic Plan are derived from the comprehensive view of identified capital needs that departments are seeking to address through future investment in respective infrastructure categories.

Table 8.1 Infrastructure Categories and Responsible City Departments

Infrastructure Category	City Department
Area Plans	Planning and Zoning Department Neighborhood Housing and Community Development Department Economic Development Department
Aviation	Aviation Department
Electric	Austin Energy
Facilities	Building Services Office of Sustainability All City departments
Housing	Neighborhood Housing and Community Development Department
Land Acquisition	Office of Real Estate Services All City departments
Mobility Infrastructure	Austin Transportation Department Public Works Department Parks and Recreation Department Planning and Zoning Department Economic Development Department
Park Amenities	Parks and Recreation Department Public Works Department
Public Art	Economic Development All City departments
Stormwater	Watershed Protection Department Parks and Recreation Department Public Works Department Economic Development Department
Water Infrastructure	Austin Water Utility

The Rolling Needs Assessment, as a component of the Long-Range CIP Strategic Plan, provides information for departments and the Budget Office to consider during the formulation of the Five-Year CIP Plan and Capital Budget, development of grant proposals, consideration of potential partnerships or other funding strategies, including development of future bond programs. For example, the Mobility Infrastructure section of the Rolling Needs Assessment was used as a starting point for what evolved into the approved 2016 Mobility Bond package.

The Rolling Needs Assessment also differentiates between ongoing capital programs and strategic investments. Identified strategic capital investments can be instrumental in advancing the vision of Imagine Austin or related City-approved plans, and typically extend beyond the work of any one City department. Therefore the Rolling Needs Assessment provides an opportunity for early coordination and development of strategic projects.



Ensuring ADA-compliant access and improving overall public safety at aquatic, playscape and other facilities managed by the Parks and Recreation Department ensures better services to all residents and facility visitors.

Conclusions

The following conclusions are based on information gathered from City departments through this year's Rolling Needs Assessment process. The Rolling Needs Assessment programs and projects that can be mapped geographically are shown on **Figure 7.3**.

Capital Renewal Needs

Capital renewal needs make up a large portion of long-range capital program needs. Major rehabilitation and replacement of existing facilities and other existing infrastructure continues to make up a major portion of ongoing capital programs throughout all infrastructure categories. Capital renewal needs include mobility projects such as street rehabilitation, which addresses streets in poor condition through necessary infrastructure rehabilitation and upgrades to transportation communication networks in order to better manage arterial street operations and provide information to travelers.

Capital renewal needs for all infrastructure types occur across the city but are more numerous in the central core of Austin. This is not surprising since the existing infrastructure is older and infrastructure design standards and developer requirements for the provision of infrastructure have advanced since it was first constructed. Ongoing programs for improvements and rehabilitation of park infrastructure provide an example of necessary upkeep in order to improve service to community members. Ensuring ADA-compliant access and improving overall public safety at aquatic, playscape and other facilities managed by the Parks and Recreation Department ensures better services to all residents and facility visitors.

The Rolling Needs Assessment also identifies capital renewal needs in outer areas that were originally developed outside of the city limits but have since been annexed and therefore may not comply with current city development standards. Now that these areas have been annexed into the city, infrastructure may need to be brought up to basic levels of service the City requires. An example is the Watershed Protection Department's identified need for storm system design in annexed areas where Austin Water Utility is required to implement water and wastewater improvements.

Service Demand Needs

Departments also identified ongoing needs for new or expanded facilities and infrastructure capacity to address service demands resulting from Austin's rapid population and economic growth. Many departments identified the need for major renovations or expansions to existing city facilities or for new administrative, logistical and public-facing facilities. As an example, the airport has seen consistent growth in flights and passengers. Through long-range planning, the Aviation department has identified expansion and rehabilitation needs through 2031 in order to comply with federal safety regulations and provide the best quality of service to Austin residents and visitors. Future infrastructure improvements include terminal expansion, runway, taxiway, and apron pavement improvements, airfield drainage and utility improvements, and enhanced firefighting capabilities.

The City has ongoing capital improvement programs across all infrastructure types to address service demands through infrastructure capacity enhancements. Historically, addressing growth through capacity enhancements was focused on the edges of Austin to serve annexed areas as the city limits expanded. Now with significant redevelopment in the inner core, departments have begun to identify future capital needs in response to increasing service demands in those areas as well. These can be coupled with projects addressing the need to rehabilitate existing infrastructure in the area. Examples include the ongoing programs managed by the Watershed Protection Department for storm drain infrastructure maintenance capacity and condition. Improving the condition of and expanding capacity levels for storm drain infrastructure in designated Imagine Austin Centers and Corridors allows for greater support in areas designated to anticipate and experience additional growth as they develop into complete communities.

Private developers are required to provide infrastructure to meet growth demands. The solutions the City uses to address capacity enhancements vary in different areas of the city because the City needs to be able to respond appropriately to the existing infrastructure and development context. For example, parkland acquisition and development needs, which the parkland dedication fee for private development helps facilitate, focuses on acquiring larger tracts of land where greenfield development is occurring. The parkland acquisition program also focuses on pocket parks, existing park development, and enhancements in redeveloped areas within the inner core where less land is available and there is a less robust existing



Sidewalks, bicycle facilities and urban stormdrains were not constructed with the original roadway or adjacent development. Multiple departments have identified corridor improvements as a future capital need.

network of parks.

Sidewalks, bicycle facilities and urban stormdrains were not constructed with the original roadway or adjacent development. Multiple departments have identified corridor improvements as a future capital need.

Urgent Needs

Addressing urgent needs often results in reprioritization of capital program future needs. Recent extreme weather events, such as drought and floods, have resulted in urgent water and stormwater needs that require Austin Water and the Watershed Protection Department to adjust their long-range planning, potentially deferring important rehabilitation projects that maintain these infrastructure systems. Although these departments have some funding from dedicated sources, the costs of meeting these needs typically outweigh available funding, making responsiveness to urgent needs challenging and delaying other projects.

As extreme weather continues, these departments are factoring in the need to respond quickly to urgent needs into their long-range Capital Improvement Program planning and funding strategies.



Extreme weather conditions, such as those that led to the 2015 Memorial Day Floods, require departments to factor in the need to respond quickly to urgent needs into their long-range Capital Improvement Program

Strategic Investment Needs to Meet Planning and Policy Priorities

Extreme weather conditions, such as those that led to the 2015 Memorial Day Floods, require departments to factor in the need to respond quickly to urgent needs into their long-range Capital Improvement Program.

Several departments have identified new strategic capital programs and investments but need to identify specific projects for funding. These programs respond to new policies and priorities, and can be driven by service demand or to other key drivers of the Capital Improvement Program such as sustainability and affordability. The Rolling Needs Assessment identifies several future strategic projects, particularly in areas where previous long-range planning and project development has occurred. Examples include match funding for park improvements in the Waller Creek district in collaboration with the Waller Creek Conservancy and park improvements and pool development around the Colony Park area.

Several strategic programs are related to improved mobility, stormwater management, housing affordability, and local-area economic regeneration. Others address capital improvement needs identified in small area plans, such as the recently adopted South Austin Combined Neighborhood Plan and South Shore Central Master Plan. Often, departments identify these program needs with the knowledge that there is high potential to develop a strategic project or program but that additional project development needs to take place. As such, these needs are a sort of placeholder and serve to begin discussions and coordination with potential partners, be they public or private.

Some of these programs, such as the Rental Housing Development Assistance Program, respond to partnership opportunities with private development as they arise. Others, like the Corridor Improvement Program, need further project development to identify specific priority projects in preparation for funding opportunities. Another example of a program that fits this definition is the Economic Development Department's Soul-y Austin Commercial Stabilization Program, which serves as a catalyst for local-area economic regeneration through various infrastructure improvements. Commercial districts within this

program offer an opportunity to increase and promote pedestrian, bicycle and transit friendly places through infrastructure investment that also promotes job creation, generation of sales tax and sales revenue and provide convenient access to good and services while supporting small business development.

Continuing Future Phases of Projects

General government departments have identified the need to fund future phases of projects. Due to competing needs of general government departments and the inherent funding constraints associated with limited available public funding, some projects received funding for only certain phases, such as land acquisition and design. In these cases, departments have identified funding needs for construction phases of projects that have gone through design phase in the Rolling Needs Assessment. In other cases, projects have design and construction funding but will require funding for additional related projects to realize a larger community-developed vision. Many projects that received funding in the 2016 Mobility Bond are included in the Rolling Needs Assessment to account for the remaining unfunded need to get each project through to full construction. Additional examples include the need for funding Phase 2 of the Northern Walnut Creek Trail and design and construction funding for the Dougherty Arts Center and Northwest Police Substation, which received funding for land acquisition and preliminary work in the 2012 Bond Program.

Planning and Coordination Needs

The Rolling Needs Assessment highlights certain overlapping needs multiple departments have identified and provides a platform to pursue a multi-departmental and multi-agency coordinated approach to projects before they have identified funding. Coordinating projects in the planning stage enables the City to pursue diverse funding sources as well as efficiently deliver projects that meet multiple department and stakeholder needs. A key example is the Corridor Improvement Program, which incorporates infrastructure needs from small area plans into those identified by engineering studies and establishes short, medium, and long-term goals to advance various community objectives. This program requires the coordination across multiple city departments such as Austin Transportation, Public Works, Planning and Zoning, and other infrastructure departments. In addition, the Seaholm District will require further inter-departmental planning to pursue aligning new transportation, utility, water quality and green space infrastructure.

Specifically identified strategic projects for Shoal Creek Improvements and a Seaholm District Railroad Pedestrian and Bicycle Crossing will serve a variety of stakeholders by increasing mobility access, public safety, and stormwater infrastructure needs in an area experiencing economic revitalization.

Infrastructure-related master planning and project development continues to be a need for many departments. Many departments have identified the need for studies, assessments and preliminary engineering to help them transform capital needs and solutions into specific projects for funding. This planning determines project feasibility, identifies coordination and collaboration opportunities, and helps define project scopes and budgets. Historically, there has been limited funding for these Capital Improvement Program-related planning-phase activities, resulting in reduced ability for collaborative project development and cost efficiency. While the Long-Range CIP Strategic Plan provides a greater opportunity for early collaboration on projects by identifying the priority future needs from multiple City departments, additional project development will be needed to sufficiently scope out and fund future capital improvements. For example, a master plan for improvements to Northwest District Park presents a significant opportunity for the Parks and Recreation Department and the Watershed Protection Department to collaborate to rehabilitate existing deteriorating facilities that both departments have indicated as requiring a significant level of investment. Both departments have identified the need for Phase 1 set of improvements in the Rolling Needs Assessment.

Rolling Needs Assessment – Infrastructure Category Detail Pages

Infrastructure Category	City Department
Area Plans	Planning and Zoning Department Neighborhood Housing and Community Development Office Economic Development Department
Electric	Austin Energy
Facilities	Building Services Office of Sustainability All City departments
Housing	Neighborhood Housing and Community Development Office
Land Acquisition	Office of Real Estate Services All City departments
Mobility Infrastructure	Austin Transportation Department Public Works Department Parks and Recreation Department Planning and Zoning Department Economic Development Department
Park Amenities	Parks and Recreation Department
Public Art	Economic Development Department All City departments
Stormwater	Watershed Protection Department Parks and Recreation Department Public Works Department Economic Development Department
Technology	Communication and Technology Management
Vehicles/Equipment	Fleet Services Aviation Austin Police Department All City departments
Water Infrastructure	Austin Water

Area Plans are developed for a defined geographic area of the city, providing an opportunity for citizens to take a proactive role in the planning process to decide how the area will move into the future. The plans often address land use, transportation and urban design issues, and may include numerous implementation strategies, including policies, regulations, and desired City investments.

Many of Austin's area plans are developed by City staff in coordination with the community, and do not require funding for consultants. However, sometimes consultants are sought to either facilitate the planning process or provide specific technical assistance. Funding used for external consultants to assist with the development of citywide plans such as the Imagine Austin Comprehensive Plan or specific-area plans is often considered a capital expense by the City of Austin because it can extend over the course of more than one year.

Note that any specific infrastructure master plan needs, such as the Sidewalk Master Plan, Parks and Recreation Long Range Plan, Watershed Protection Master Plan, etc. are addressed in the related infrastructure type sections of this document.

DEPARTMENT ROLES

In coordination with the community, the ***Planning and Zoning Department (PAZ)*** develops and updates the City's comprehensive plan in addition to a variety of small area plans including neighborhood plans, corridor plans, area-specific master plans, and other plans which are adopted as components of the Comprehensive Plan. The plans developed by PAZ may be comprehensive in scope, or may be more narrowly focused on characteristics of the built environment including land use and urban design. Often the plans result in recommendations for City infrastructure investments.

The mission of the ***Neighborhood Housing and Community Development Department (NHCD)*** is to provide affordable housing, community development and small business development services to benefit eligible residents, so they can have access to livable neighborhoods and increase their opportunities for self-sufficiency. In the past, NHCD has been responsible for developing community development area plans such as the 11th/12th street revitalization area and the Colony Park Master Plan. The Economic Development Department is now responsible for the facilitation of implementation of the Colony Park Master Plan.

The ***Economic Development Department (EDD)*** offers a wide variety of expertise and program services utilizing their five divisions – Global Business Recruitment and Retention, Small Business Program, Redevelopment, Cultural Arts Program, and Music Program. They provide leadership or staff participation on small area and city-wide plans, special planning initiatives, special financial, redevelopment, and cultural programs, and implementation of specialized economic development and policy initiatives. In addition to these efforts, EDD facilitates the use of public-private partnerships to redevelop targeted areas of the city, which allows the use of the City's resources as well as those of a private developer. EDD manages the public-private partnership through the use of Master Development Agreements. Examples include the Mueller Redevelopment Area, Seaholm Redevelopment, the Colony Park Sustainable Communities Initiative Master Plan, and Green Water Treatment Plant Redevelopment.

In some cases the City funded consultants to create master plans for the redevelopment areas prior to master developer solicitations for the sites. If significant City assets are redeveloped or repurposed in the future, additional community visioning and pre-solicitation planning may be needed.

FUTURE CAPITAL NEEDS

Below is a list of identified future area plan needs with a description of each provided on the following pages.

Ongoing Capital Programs

Ongoing capital program needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. This can include rehabilitation or replacement of existing infrastructure as well as expansion of infrastructure to meet growth demands. Although Area Plans may include an analysis of basic infrastructure needs for the geographic area under study, the plan itself is considered a strategic investment for greater public outreach and coordination in future infrastructure planning. For this reason there are no "ongoing capital program" needs for Area Plans. In addition, much of the City's ongoing area planning is facilitated by City staff and does not have a capital expense associated with it.

Strategic Capital Investments

Strategic investments represent innovative approaches to better meet departments' service to the community, respond to specific City Council-identified capital investment priorities, or to advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City department. Investments in Area Plans will be an important part of implementing the Compact and Connected, Green Infrastructure, Workforce Development, and Sustainable Water priority programs of the Imagine Austin Comprehensive Plan.

Dept.	Strategic Program or Strategic Project Need	Title
PAZ	Strategic Program	Small Area Plan Implementation
	Highlighted Project Need	South Austin Combined Neighborhood Plan Implementation
	Program Subcategory	Implementation of South Central Waterfront Plan
	Highlighted Project Need	South Central Waterfront Plan Implementation – Barton Springs Drive East <i>(note: also included in Mobility section)</i>
	Highlighted Project Need	South Central Waterfront Plan Implementation – Crockett Square
	Highlighted Project Need	South Central Waterfront Plan Implementation – Barton Springs Rain Garden & Plaza
	Highlighted Project Need	South Central Waterfront Plan Implementation – Bouldin Creek Trail <i>(note: also included in Mobility section)</i>
	Highlighted Project Need	South Central Waterfront Plan Implementation – Existing arterial upgrades <i>(note: also included in Mobility section)</i>
	Highlighted Project Need	South Central Waterfront Plan Implementation – Regulating Plan
PAZ	Strategic Program	Strategic Annexation Investment
NHCD	Strategic Program	Community Development Master Planning <i>(note: also included in Housing section)</i>
	Highlighted Project Need	Pecan Tillery – Planning Project
	Highlighted Project Need	Levander Loop - HHSD Campus/Animal Shelter Site
	Highlighted Project Need	HHSD Campus/Animal Shelter Site
EDD	Strategic Program	Soul-y Austin Commercial Stabilization Program <i>(note: also included in Mobility section)</i>
EDD	Strategic Program	Seaholm District
	Strategic Project Need	Shoal Creek Improvements <i>(note: also included in Stormwater section)</i>
	Strategic Project Need	Seaholm District Railroad Pedestrian and Bicycle Crossing <i>(note: also included in Mobility section)</i>

EDD	Strategic Program	Cultural Arts Projects
	Strategic Project Need	Cultural Facilities Analysis
	Strategic Project Need	Cultural District Development: Infrastructure, Beautification/Enhancement
Other Strategic Project Needs:		
PAZ	Strategic Project Need	CodeNEXT – Unfunded Need
EDD	Strategic Project Need	Colony Loop Drive (<i>note: also included in Mobility section</i>)

DESCRIPTIONS

Strategic Capital Investments

Small Area Plan Implementation

Planning and Zoning Dept.

Various capital projects implementing adopted neighborhood plans, special regulating district plans, and other small area plans supporting the Imagine Austin Comprehensive Plan. This ongoing program would support implementation of Imagine Austin, by providing funding for significant, catalytic projects recommended by adopted small area plans. Funding these projects would allow for the City to develop demonstration projects that could be built on in other areas, would leverage additional private sector investment in the areas, and would send a signal to the public that the City is serious about implementing its plans.

Highlighted Project Need: South Austin Combined Neighborhood Plan Implementation: Set aside funding to support implementation of South Austin Combined Neighborhood Plan. This project would support implementation of Imagine Austin and the attached South Austin Combined Neighborhood Plan, but providing funding for one or more significant, catalytic projects recommended by the South Austin Combined Neighborhood Plan. Funding these projects would leverage additional private sector investment in the area, and would send a signal to the public that the City is serious about implementing its plans.

Program Subcategory: Implementation of South Central Waterfront Plan: Construct public improvements that implement the South Central Waterfront Plan. Several City plans, adopted and in process, overlap in the South Central Waterfront Plan area. These include: two adopted neighborhood plans; all four of the streets which transect the study area are Core Transit Corridors; and the South Central Waterfront Plan, adopted by City Council in 2016 (the Interim Vision Framework Plan, a precursor to the small area plan, completed in 2014); and the Congress Streetscape project, in process. These plans include recommendations for infrastructure improvements to promote walkability and greater mobility choices related to all four core transit corridors, improved streetscapes throughout, the introduction of new street connections, new urban trail connections along Bouldin Creek, district-wide implementation of exemplary green infrastructure standards, and otherwise enhanced place-making features within this district. If these

and other needs raised by the public as part of the planning processes are considered early in the development of the project scope and are sufficiently funded, infrastructure improvement projects within this district have an opportunity to not only address mobility-related issues, but also to support place-making and green infrastructure goals established in the plans, and be better coordinated with future planned development in the area.

Highlighted Project Needs:

- South Central Waterfront Plan Implementation – Barton Springs Drive East: Construct a new green street, which would include spacious landscaping and green infrastructure. This recommendation would set the stage for the new street grid in the SCW Planning Area.
- South Central Waterfront Plan Implementation – Crockett Square: Construct Crockett Square. This recommendation is a catalytic project which would support implementation of the South Shore Central Master Plan.
- South Central Waterfront Plan Implementation – Barton Springs Rain Garden & Plaza: Construct Barton Springs rain garden and public plaza. This recommendation is a catalytic project that provides early demonstration and direction for fulfilling the SCW vision.
- South Central Waterfront Plan Implementation – Bouldin Creek Trail: Implement Bouldin Creek Trail. This specific recommendation is a catalytic project that provides recreational connectivity and potential public/public partnership that contributes to the green infrastructure network in the SCW vision.
- South Central Waterfront Plan Implementation – Existing arterial upgrades: Design and engineering to upgrade existing arterials. Upgrading the existing arterials are a central component to achieving the SCW Plan's vision of a connected green infrastructure district.
- South Central Waterfront Plan Implementation – Regulating Plan: Develop regulating plan supporting Imagine Austin and Council adopted South Central Waterfront Vision Framework Plan. Funding would allow PAZ to hire consultant teams to support development of regulations. The South Central Waterfront Vision Framework Plan (SCW Plan) identifies implementation steps which include the development of regulations which supports development in accordance to the Vision. This includes the development of a Regulating Plan, form-based codes, and design standards.

Strategic Annexation Investment

Planning and Zoning Dept.

Set aside funding to support strategic extension of municipal services to support annexation. This ongoing program would allow the City to pursue annexation in a manner that supports the Imagine Austin Plan and is more fiscally sustainable over time.

Community Development Master Planning

*Neighborhood Housing and
Community Development Dept.*

Funds will be used for Master Plan Development on current and future properties owned by the Austin Housing Finance Corporation. Planning for the development of mixed-use and mixed-income communities in the City and increasing connectivity aligns with the following Imagine Austin Priority Programs: Develop and Maintain Household Affordability Throughout Austin; Invest in a Compact and Connected Austin; Continue to grow Austin's economy by investing in our workforce, education systems, entrepreneurs, and local businesses; and Create a Healthy Austin.

Strategic Project Needs:

- Pecan Tillery – Planning Project: Pre-development work, including design and engineering plans needed for future development of this 2.58 acre property in Govalle-Johnston Terrace. Increases the supply of affordable housing, including housing for special needs populations, in an area with rapidly increasing land values.
- Levander Loop - HHSD Campus/Animal Shelter Site: Initial engineering work for pre-development including design and engineering plans needed for future development on 6 acres of the HHSD Betty Dunkerley Campus. Increases the supply of affordable housing, including housing for special needs populations, in an area with rapidly increasing land values.
- HHSD Campus/Animal Shelter Site: Feasibility/alternatives analysis to define scope of the project, predesign and engineering needed for future development. Funds needed for design and preparation of the site for development of affordable housing. It will help address the City's affordable housing priority.

Soul-y Austin Commercial Stabilization Program*Economic Development Dept.*

This program would fund infrastructure repairs and streetscape improvements. The City of Austin recognizes the significance and role that vibrant commercial districts and corridors with a range of retail, restaurants and community responsive services have in creating socially and economically healthy neighborhoods. As an integral part of our community and economy, these commercial areas offer many benefits to our community including job creation, generation of sales tax and sales revenue, provide convenient access to goods and services, support small business development and importantly foster the sense of place that many of our Austin neighborhoods have. Importantly a Commercial Stabilization Program furthers the Imagine Austin's goal of becoming a compact and connected city. Commercial Districts and corridors offer an opportunity to increase and promote pedestrian, bicycle and transit friendly places that improve the quality of life for residents and increase their access to opportunity. A city-wide Commercial Stabilization Plan supports the formation of Merchants Associations, infrastructure repairs and streetscape improvements, enhanced policies, and beautification efforts that contribute to the local economy. This program will partner with local businesses and other city departments to rehab/replace and/or enhance existing and new infrastructure.

Seaholm District*Economic Development Dept.*

The Seaholm Development District projects provide public infrastructure supporting redevelopment of the district, which includes the Sand Beach/Gables Park Plaza, Seaholm Power Plant, New Central Library, Green Water Treatment Plant and Austin Energy Control Center redevelopment projects. The work includes realignment and creation of new transportation, utility, water quality and green space infrastructure.

Strategic Project Needs:

- Shoal Creek Improvements: Improvements along lower Shoal Creek, within the Seaholm Development District. Improvements along lower Shoal Creek are needed to create a green space asset and support redevelopment of the district.
- Seaholm District Railroad Pedestrian and Bicycle Crossing: This project will provide a controlled pedestrian and bicycle crossing of the Union Pacific Rail Road (UPRR) on the west side of Lamar. This project was agreed to with UPRR as part of negotiations on the Bowie Underpass and real estate contracts in the Seaholm District. It is vital for safety and access on the west side of Lamar.

Cultural Arts Projects*Economic Development Dept.****Strategic Project Needs:***

- Cultural Facilities Analysis: This project will identify gaps between the need for and existence/placement of cultural facilities. This project was identified in the Imagine Austin Creative Economy Priority Program Work Plan. Identify gaps between the need for and existence/placement of cultural facilities. Now that the Cultural Asset Mapping Project (CAMP) has been completed (April 2017), it is important to analyze the need or gap for cultural facilities for theaters and performing arts; visual arts workspaces, galleries and museums; and live music venues. CAMP was a city-wide inventory and GIS-mapping of Austin's cultural assets in order to better integrate the creative sector's and community's capital improvement project needs into City planning areas and initiatives. The work will inform the future development of cultural facilities, artist housing, sector incubators, creative corridors/hubs, and the development of cultural districts (cluster identification, sector development, and identification of naturally occurring cultural districts, and identification of cultural deserts). It will also provide a short list of arts and culture priority analysis and recommended strategies for implementation for the newly created Council Districts. The final Council District Creative Asset Maps will help recommend arts, culture, and creativity community development and investment priorities.
- Cultural District Development: Infrastructure, Beautification/Enhancement Need: Utilizing the strategies from the Cultural Asset Mapping Project (CAMP) create a plan for a Cultural District Designation Program to increase/facilitate creative sector districts that provide public good and creative sector development and expression, and at the same time use policy tools to help them be self-funding. A Cultural District is a well-recognized, labeled, mixed-use specific geographical area which has a high concentration of various kinds of cultural facilities (artist live/work, incubators, galleries, theaters, etc.), activities, and assets that serve as anchors of attraction. Cultural Districts can be catalysts for revitalization, drive cultural and heritage tourism, increase direct and indirect spending, more jobs, higher local and state tax revenues, and over time, increase property values. As an example of the "clustering" strategy that has gained ground in Austin in the last ten years in other industries – the newly designated medical "Innovation Zone" around the new Dell Medical Teaching Hospital and the Austin Film Studios/Austin Film Society campus for film creators are two examples. Clustering results in faster innovation for industry over cities that do not include clustering activities as a prominent component of their economic development strategy. In addition to this clustering strategy, the CAMP Final Report delineates other strategies, such as "string of pearls", identifying anchors or utilizing events, or revealing history, among

others. In the process include plans for such infrastructure that includes wayfinding and signage, improvements in urban design, and enhancements to provide a more pedestrian-friendly environment around the cultural facilities, venues and creative spaces in a district. This would help create a process to build the much needed cultural infrastructure (cultural facilities) that is so sorely lacking for the Austin creative sector that is a \$4.35 billion industry (using 2011 data).

Other Strategic Project needs:

- CodeNEXT- unfunded need *Planning and Zoning Dept.*
 This project need would allow PAZ to complete the final phase of the CodeNEXT project including: consultant services to participate in key public hearings during review and adoption of the code, production of an adopted version of code text and map, and production of public material to inform the hearing process. The consultant and Staff from multiple City departments concluded the first public review draft in the fall of 2016. On January 30, 2017, the draft was released to the public with the anticipation of about six months of public review to follow. In the spring of 2017, a draft zoning map will be produced by the staff and will be released. The map will be joined to the text to comprise the complete draft of the code. During the spring and summer of 2017, the staff and public will make comments on both the draft text and the draft maps which will lead to further staff revisions in advance of an adoption draft to be prepared for Planning Commission review in September 2017. Public hearings on the draft text and map will be considered by the Planning Commission and City Council commencing in September 2017 for Planning Commission and December 2017 for City Council.
- Colony Loop Drive *Economic Development Dept.*
 Construction of a new roadway, connecting the existing leg of Colony Loop Dr., which begins at Loyola Lane and serves Overton Elementary School, with the western leg of Colony Loop Drive, which begins at Valleyfield Dr. and connecting to Decker Ln. This project also includes complete street improvements on the existing east and west legs of Colony Loop Dr. to support and enhance the construction of the proposed Colony Loop Drive Connection and provide critical connectivity for the neighborhood. The Preliminary Engineering and/or Design and Construction of the Colony Loop Drive connection, which includes a new complete street roadway beginning at Overton Elementary School and connecting through the Colony Park site to Valleyfield Drive and the Lakeside Community, includes engineering and design of all major utilities and telecommunication infrastructure to support the implementation of the Council adopted Colony Park Master Plan and possible upgrade of necessary utility mains at Loyola Lane. The project will provide critical connectivity for residents and visitors of the Colony Park neighborhood to access the Overton Elementary, Turner-Roberts Recreation Center, Colony Park District Park, and Travis County Expo Center. Installation of this major roadway connection and accompanying infrastructure will play a key role in the ability to foster commercial and residential development during the implementation of the Council adopted Colony Park Master Plan, helping to generate revenue from private investment. The site is currently owned by Austin Housing Finance Corporation (AHFC) and receives 100% tax abatement. Development of the site will put the property back on the tax rolls, increasing the City's revenue. The Colony Park zip code, 78724, only provides 0.4 jobs per housing unit. Additionally, the missing Colony Loop Drive

connection hinders public transportation from efficiently servicing the neighborhood. As the Colony Park Master Plan envisions a mixed-income, mixed-use, sustainable development, construction of the Colony Loop Drive connection would increase mobility, foster transit access that serves a broad range of incomes, create much needed connections to existing recreation and educational facilities, and bring jobs and housing closer together. Resolution #20140807-104, directed the City Manager to include neighboring connectivity, public amenity maintenance and governance, and financing options within and adjacent to the City of Austin owned 208-acres associated with the Council adopted Colony Park Master Plan.

TYPICAL CIP FUNDING SOURCES

Area Plan consultant expenses have been funded in the past through a variety of methods including Capital Metro quarter-cent funds, grants, and funding from the General Fund.

Funding for the implementation of recommendations in the area plans comes from a variety of sources, depending on the type of recommendation. With the exception of some public-private partnership development agreements, there is no designated funding source set aside specifically for the implementation of area plan priority recommendations. The plan recommendations instead guide funding decisions for infrastructure investments, and are considered in combination with department business needs. Funding sources for the different types of CIP infrastructure are identified in the following sections of this report.

Typically, the publicly funded components of public-private partnership redevelopment projects are either managed by the responsible City department or the private sector developer delivers the infrastructure under a reimbursement agreement and funding is established through debt financing on future revenues from the associated redevelopment project.

Austin Energy develops and implements its Capital Improvement Plan (CIP) to maintain or improve its infrastructure. This includes the cost of land, engineering, architectural planning, and contract services needed to complete projects for new construction, expansion, renovation, or replacement of an existing facility. The CIP also includes equipment purchases for long-lived assets. The goal is to effectively plan for the future while using the most economical means of financing capital improvements to ensure affordable and competitive priced services to our customers.

DEPARTMENT ROLES

Austin Energy's mission is to safely deliver clean, affordable, reliable energy, and excellent customer service. As a municipal utility operating within the competitive Electric Reliability Council of Texas (ERCOT) market, AE owns and operates natural gas fired generation as well as joint interests in nuclear and coal facilities. Austin Energy produces power which is sold to ERCOT at market prices for the financial benefit of our retail customers. Austin Energy also owns and operates a high-voltage transmission system used by utilities within ERCOT at rates set by the Public Utility Commission of Texas, which earns a rate of return for the financial benefit of our retail customers. Austin Energy's low-voltage distribution system delivers electricity directly to our retail customers. To support its power-related businesses, AE owns and operates control facilities, offices, call centers, billing, and collection systems that also support other City of Austin utilities.

Below is a diagram of the flow of electricity from the generating plants to the ERCOT market, through the state-wide transmission system, into our distribution system and substations, and, finally, to our retail customers. Austin Energy owns and maintains assets throughout this integrated system which drives the majority of the capital improvement program for the utility.

FUTURE CAPITAL NEEDS

Below is a list of identified future electric infrastructure needs with a description of each provided on the following pages. Enterprise Departments, such as Austin Energy, are revenue generating and adjust capital program roll-out based on available revenue. Although a dedicated funding source is identified for these capital programs, projected capital project needs typically exceed funding availability, as is common with municipalities across the U.S.

Ongoing Capital Programs

Ongoing capital program needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. This can include rehabilitation or replacement of existing infrastructure as well as expansion of infrastructure to meet growth demands. Austin Energy is also required to comply with federal and state regulatory requirements that dictate certain improvements.

Highlighted future project needs within the ongoing capital programs are also provided below to illustrate the types of projects that are typically undertaken within that capital program, or to identify

significant future planned projects on the horizon. These are provided as a snapshot of planned future projects at this point in time, and are not guaranteed to be implemented in the future. The City needs flexibility in implementing ongoing capital programs in order to adapt to changing circumstances or address urgent needs. Capital needs will be updated annually for planning, coordination, and public transparency purposes.

Dept.	Ongoing Program or Highlighted Project Need	Title
Austin Energy	Ongoing Program	Power Generation
	Highlighted Need	Sand Hill Energy Center Circulating Water Pumps Upgrade
Austin Energy	Ongoing Program	Transmission and Distribution
	Highlighted Need	Substation Upgrades
Austin Energy	Ongoing Program	On-site Generation
	Highlighted Need	District Cooling Plant #3
Austin Energy	Ongoing Program	Alternative Energy
	Highlighted Need	Commercial Energy Storage
Austin Energy	Ongoing Program	Customer Service and Billing
	Highlighted Need	Customer Care & Billing System Upgrades
Austin Energy	Ongoing Program	Support Services
	Highlighted Need	HVAC System Upgrade at Town Lake Center Facility

Strategic Capital Investments

The City also has needs for strategic capital investments in electric infrastructure. Strategic investments may include innovative approaches to better meet the department's service to the community, respond to specific City Council-identified capital investment priorities, or to advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City department. Investments in electric infrastructure will be an important part of implementing the Green Infrastructure priority program of Imagine Austin.

Dept.	Strategic Program or Strategic Project Need	Title
Austin Energy	Strategic Program	Sustainable and Holistic Integration of Energy Storage and Solar PV (SHINES) Battery Storage Program
Austin Energy	Strategic Program	Meter replacements

DESCRIPTIONS

Ongoing Capital Programs

Power Generation

Austin Energy

Primary driver of projects is scheduled rehabilitation of equipment in the power plants (Decker and Sand Hill) based on age of assets and performance. Other considerations are regulatory requirements, ERCOT market conditions, AE's load forecast, and the AE generation resource plan which provides schedules for adding system generation by building additional generating capacity at the Sand Hill Energy Center or Decker Power Station and by building wind generation. For jointly owned projects such as the South Texas Nuclear Plant (STP) and the Fayette Power Project (FPP), AE works with the managing partners, the Lower Colorado River Association (LCRA) for FPP, and the South Texas Project Nuclear Operating Company (STPNOC) for STP, to agree on a capital projects budget for the five year period.

Highlighted Project Need: Sand Hill Energy Center Circulating Water Pumps Upgrade

Upgrade the existing circulating water pumps for Unit 5 which provides cooling water to condense process steam as it exits from the steam turbine. Upgrade necessary to enhance flow of cooling water currently restricted by location within the unit.

Transmission and Distribution

Austin Energy

Transmission lines are the higher voltage lines carrying energy from the power plants to AE and other utilities service territories for distribution at lower voltage to retail customers. ERCOT's plans for the overall state-wide grid play a big part in the projects AE includes in its CIP. AE also analyzes the transmission system to perform rehabilitation on the highest priority projects to maintain or improve system reliability.

Distribution Projects are prioritized based on system growth, schedules for rehabilitation of assets and improvements needed to the system to ensure reliability. New developments and large customers coming into the system can determine how quickly an asset, such as a substation, needs to be built. New substations and distribution lines must be built to provide service to areas of growth, and projected demand determines when they need to be built. An example from FY 2012-13 was the Water Treatment Plant 4 which required a new substation to be built in order to provide power to the treatment plant. Analysis of the system is also updated frequently to determine where system assets must be improved or upgraded to increase reliability and ensure system performance. The years in which these are built is determined by performance of the equipment, probability of failure, and expected growth in load.

Highlighted Project Need: Substation Upgrades

Upgrade aging equipment and transformers at the existing distribution substations Kingsbery unit 456, Salem Walk unit 789 and McNeil unit 456 to increase distribution system reliability.

On-site Generation

Austin Energy

Projects are for on-site generation using chilled water to cool equipment and heat for hot water. AE approaches customers in the desired areas where this type of service can be provided, and enters into contracts with these customers. AE must work with Austin Water, Public Works, Watershed Protection and Transportation departments to coordinate the routing of pipes bringing chilled water to these locations. Projects are determined by location and cost to supply this service. No revenue from electric rates is used for on-site generation.

Highlighted Project Need: District Cooling Plant #3

Design and construction of the new Downtown District Cooling Plant #3 to be located at the Crescent Tract Property, 812 1/2 W 2nd Street. The objective of this project is the installation of 5,000 to 10,000 Tons of additional chilled water capacity including chillers, cooling of condenser water using cooling towers or once through lake water from Lady Bird Lake, associated infrastructure, and appurtenances. The project also includes the construction of a retaining wall along the railroad property to increase available space on the property.

Alternative Energy*Austin Energy*

This area involves the non-traditional production of energy such as solar and charging stations for electric vehicles. Projects are planned based upon a schedule of areas in the City that are prepared for solar installations, and have the necessary community involvement. Other projects such as charging stations for electric vehicles will depend on demand levels in the Austin market and financial support of grants from the Federal government.

Highlighted Project Need: Commercial Energy Storage

Install several energy storage systems on commercial facilities with Photovoltaic solar and select a vendor/partner with skill in optimizing the value of storage that can identify and determine the value to both the utility and its customers. The baseline data from this pilot will serve as the foundation for analysis about the potential for programmatic development around customer sited storage, either through incentive programs, or the creation of a program that allows AE to own customer sited storage as a new product/service.

Customer Service and Billing*Austin Energy*

Projects are based upon upgrades needed to customer information systems, and are prioritized based on cost and value to AE and other City departments for which AE provides billing and collection services. Projects may also include upgrades to the City's 311 Information System.

Highlighted Project Need: Customer Care & Billing (CC&B) upgrades

This project will include necessary major upgrades to the CC&B billing system to keep the system up to date with the latest software and functionality.

Support Services

Austin Energy Projects in this category support the other major areas listed above. Many are facilities projects based on growth of staff and age of buildings. Other projects include information technology systems which will keep the utility up to date with technology changes and are prioritized based on value to utility operations.

Highlighted Project Need: HVAC System Upgrade at Town Lake Center Facility

This project will remove and replace the current chilled water air conditioning system at Town Lake Center (TLC) with a Direct Expansion Variable Refrigerant Flow system.

Strategic Capital Investments**Sustainable and Holistic Integration of Energy Storage and Solar Photo Voltaic (PV) (SHINES) Battery Storage Program***Austin Energy*

Install approximately 1.6 Megawatt (MW) battery in the Mueller neighborhood for smart grid demonstration related to the Sustainable and Holistic Integration of Energy Storage and Solar Photo

Voltaic (PV) SHINES Department of Energy grant. The goal is to demonstrate **Advanced Smart Grid** capability to accommodate increased levels of Solar PV penetration, and dispatch power as needed to provide firm support for the ECROT grid.

Grid Modernization - Meter Replacements

Austin Energy

As part of smart grid modernization, Austin Energy will replace first-generation smart meters with more advanced, two-way meters. The new meters will help customers better manage their energy under the utility's five-tier rate system and can transmit customer energy use information every 15 minutes. By comparison, the older smart meters send data only once per month. The increased data will help customers track their energy use throughout the day, raising awareness about conservation, and helping them to avoid spikes in energy use. The new meters will also reduce the need for AE to visit customer premises to turn power on and off as the advanced smart meters will allow AE to do so remotely, thus reducing emissions from vehicles and improving the utility's response to customer requests.

TYPICAL CIP FUNDING SOURCES

Austin Energy's financial policies, approved by the City Council, outline the funding requirements for its CIP projects. According to these policies, a mixture of current revenue and debt provide funding resources for CIP projects. Debt is commercial paper issued in the short term that is periodically converted or refunded into long term bonds. Funding is broken down into the following categories:

Non-taxable Debt and Current Revenue

- Projects funded 100% from current revenue generally have an asset useful life less than the term of AE long-term bonds (30 years).
- For Power Generation, current revenue is used, when available, to fund projects with the exception of large multi-year projects which may be funded with debt. Alternative Energy projects are funded 100% current revenue with the exception of community solar projects to be funded with 100% debt due to the longer asset life of those systems.
- Transmission projects are typically funded with 60-70% debt and 30-40% current revenue, a regulatory guide established by the Public Utility Commission of Texas (PUCT) that regulates transmission in Texas.
- Distribution projects are typically funded with 65-70% debt and 25-35% current revenue, a regulatory guide.
- For Customer Service and Metering projects, Austin Energy funds these short lifespan projects with 100% current revenue.
- Support Services projects such as information technology and security improvements are funded 100% with current revenue due to the short lifespan of most information systems. Major facilities projects are funded with 100% debt since their expected useful life is 30 years or greater.

Taxable Debt

- On-site Generation is funded with 100% taxable debt.

Capital improvements may include improvements related to an expansion or renovation to an already existing facility or facilities and all activities related to the construction of a new facility or facilities.

DEPARTMENT ROLES

The City has a hybrid centralized/decentralized approach to managing its facilities. The ***Building Services Department (BSD) and the Office of Real Estate Services*** provide overarching facility/asset management services for many City facilities to ensure reliable, sustainable, and efficiently managed facilities. Building Services' and Office of Real Estate Services' roles vary depending on the facility or department it serves. In some cases, Building Services is responsible for all of the services related to managing a facility, including property management, regular maintenance, and identification of major repair, remodeling, renovation, and capital equipment replacement needs. In other cases, Building Services partners with departments who share responsibility for management of their facilities, such as the ***Parks and Recreation Department***. Some departments, such as the ***Austin Public Library Department***, are responsible for 100% management of their facilities, and Building Services provides services only as requested to supplement or assist. All real-estate-related issues, such as land acquisition and leasing, are handled by the Office of Real Estate Services.

Typically, ***individual departments*** identify needs for new facilities or expansion of existing facilities in order to maintain service levels, or accommodate projected staffing or program changes.

Due to the City's hybrid approach to facilities management, the ***Strategic Facilities Governance*** process was developed to review department facility-related requests in a strategic context to improve alignment with strategic goals, efficiency, and cost-effectiveness of future investments in City facility infrastructure. The Strategic Facilities Governance process is guided by the ***2012 Strategic Facilities Roadmap*** which included scenarios and solutions to reduce overcrowding, improve operational logistics, improve space conditions, reduce reliance on leased space, reduce transportation-based carbon footprint, and address future growth and associated space needs.

The Building Services Department and the Office of Real Estate Services are moving forward with planning and implementing many of the tactical recommendations

Strategic Facilities Governance decisions are guided by the following principles, which are described in more detail in the ***2012 Strategic Facilities Roadmap***:

- **Facilities should be functional** in the following three areas:
 - Actual use by the employees (and/or services and equipment) housed by the facilities
 - Ability to serve the public
 - Geographic and logistics issues necessitated by the facility's function
- **Citywide requirements and issues take priority** over departments, as long as they do not significantly impair the mission of a single department
- City-owned facilities and real estate should be used for the **highest and best purpose**
- The way space is designed and used should **improve worker satisfaction and create an environment for creativity, connectivity and productivity**
- Consider the **economic cost of operating and maintaining a facility**
- **Consolidate personnel and functions** where appropriate
- Consider the **overall city, regional and state objectives and spatial requirements**
- Promote and build on the city's **commitment to sustainability** where feasible and financially viable

identified in the *Strategic Facilities Roadmap* to address long-term facility needs in a comprehensive, cost-effective way.

The Strategic Facilities Governance process uses the roadmap to inform decision-making for department facilities-related capital improvements as well as facility operating decisions, such as leases. Department facility needs are reviewed during the Strategic Facilities Governance process to identify, evaluate, and prioritize solutions that meet the guiding principles established in the *2012 Strategic Facilities Roadmap* (see sidebar on the previous page). Some needs may be incorporated into strategic facility focus areas currently under study or development. Others may be recommended to be funded in the upcoming budget cycle or identified as a department-specific future unfunded need to be considered as future funding opportunities arise.

Many enterprise departments, including the ***Austin Convention Center, Aviation Department, Austin Energy, Austin Resource Recovery and Austin Water*** are responsible for managing, maintaining, rehabilitating, renovating, and replacing their facilities, in addition to identifying and funding new facilities to meet their program needs.

The ***Office of Sustainability*** facilitates ongoing collaboration across departments to advance organizational sustainability outcomes and process improvements.

FUTURE CAPITAL NEEDS

Facility needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. These can include rehabilitation or renovation of existing facilities as well as new or expanded facilities to meet growth demands or department program needs.

Department-specific future facility needs highlighted below illustrate the breadth and type of facility needs on the horizon. These are provided as a snapshot of future facility needs identified at this point in time, and are not guaranteed to be constructed in the future. The City needs flexibility in facility development, in order to adapt to changing circumstances or address urgent needs. Future facility needs are reviewed by the Strategic Facility Governance process, and are updated for planning, coordination, and public transparency purposes.

CAPITAL RENEWAL – REHABILITATION/REPLACEMENT OF CURRENT INFRASTRUCTURE

Capital renewal refers to capital improvement projects aimed at rehabilitation or replacement of the city's existing facilities and are typically more substantial projects beyond routine maintenance. Addressing these capital needs is a priority because upkeep of facilities and infrastructure can be directly related to realizing and often extending an asset's useful life and maintaining acceptable levels of service for the community. These unmet needs are often discussed during the annual budget process as urgent needs by departments.

Major Facility Repairs & Improvements

Many departments report the need to make significant improvements to existing facilities. As the number of City facilities has grown over the last decade, the budgetary resources and personnel devoted to maintaining properties have not grown in proportion. Capital needs resulting from aging buildings and deferred maintenance include addressing component failures and major structural rehabilitation of existing building systems, such as HVAC equipment, roofs, driveways, parking lots, and

other equipment necessary for facility and occupant operations. This capital need applies to all types of City facilities: public-facing facilities, public safety facilities, logistical facilities, and administrative facilities. The ***Building Services Department on behalf of the many departments it serves, as well as the Austin Public Library Department, Austin Fire Department, Austin Police Department, Austin Water, Aviation, Communications and Technology Management, Emergency Medical Services, Fleet Services, Parks and Recreation Department, and Public Works Department*** have identified significant capital needs for major facility repairs and improvements.

Space Reconfigurations

Many departments report the need to reconfigure existing space or building systems to accommodate operational requirements of the occupants. As department staff grows in response to increased service demands or operations are reorganized, workspace reconfiguration may be able to accommodate those staffing changes. In some cases, reconfiguration of existing space could defer the more expensive need for a new facility or expansion. Often space reconfiguration projects are paired with other improvements to address renovation, remodel, and improvement needs during project implementation. The ***Building Services Department, on behalf of the many departments it serves*** has identified this as a capital need due to changing operational space needs at some facilities.

Renovations, Remodels and Improvements

Renovations to many existing City facilities are needed to replace worn, failing and obsolete furniture, fixtures and equipment to enhance usefulness, ergonomics and compliance with accessibility standards. Renovations and remodel needs are also identified to meet sustainability performance requirements related to US Green building Council LEED, Energy Star and zero waste standards. The ***Building Services Department, on behalf of the many departments it serves, as well as the Austin Public Library*** have identified this as a significant capital need due to extreme wear and tear at their existing facilities from many years of use. The ***Austin Fire Department*** has also partnered with the Building Services Department to address deferred maintenance while adding women's locker rooms to existing fire stations. Additional phases of this program are needed to retrofit older stations. The ***Parks and Recreation Department*** also proposes renovations for Hancock Recreation Center to improve building systems and make upgrades for code compliance.

In addition, the reconfiguration of existing facilities or relocation of services from one facility to another presents an opportunity to renovate and remodel with these space changes. For example, the completion of construction and the opening of the New Central Library in 2017 presents a unique opportunity for the ***Austin Public Library*** to provide sufficient space to house the Austin History Center by expanding it into the adjacent Faulk Central Library. This renovation would address capacity limitations at the existing Austin History Center and would accommodate collection growth and program demands for archival materials. Similarly, the ***Parks and Recreation Department*** has proposed the adaptive re-use of the vacated Seaholm Intake Facility.

Relocation of Existing Facilities

For variety of reasons, existing facilities sometimes need to be relocated. This may occur because a department is currently occupying a space owned by another department that wishes to expand. In other cases, departments may need to move due to factors outside of their control, such as the ***Emergency Medical Services and Fire Departments'*** need to relocate warehouse facilities due to a planned highway expansion. In other circumstances, a facility may need to relocate because the building it is currently occupying no longer meets current building standards for that use. Examples of this are the planned relocation of the ***Parks and Recreation Department's*** Dougherty Arts Center. The ***Public Works Department*** has identified an urgent need for a new Service Center to replace the street repair,

right-of-way landscape maintenance, tree trimming, alleyway repairs, pothole patching and level-up activities that were previously housed at a facility that closed.

NEW FACILITIES AND EXPANSIONS RELATED TO GROWTH

Austin's rapid population and economic growth increases the need for City services as well as the associated staff and administrative, logistical, public safety and public-facing facilities to provide them. Departments continue to identify new facility and expansion needs to meet their service demands. Examples of department-identified facility space needs are listed below; however, more planning is needed to identify specific solutions to address these needs. With high land prices and increasing building, operation and maintenance costs, single-use facilities in many cases are no longer a cost-effective way to meet the facility need. Instead, the City will need to evaluate other options to address space needs, including leases of private sector buildings, space re-configurations at existing facilities, expansions of existing facilities, development of joint multi-use facilities, or public-private partnerships or public-public partnerships. The City will explore the most cost-effective approach to address the new or expanded facility space needs listed below.

New or Expanded Public-facing Facilities

This includes long-term needs for new public-facing facilities or the expansion of existing facilities in order to maintain service levels, or to accommodate projected staffing increases or program changes. Public-facing facilities include libraries, recreation centers, health clinics, animal shelters and cultural facilities. In some cases, the City can explore leases of or partnerships with privately-owned facilities to fulfill these space needs, but in many cases they cannot due to specific operational space configuration needs or the continuous need to maintain public accessibility to the facility.

Examples of identified future needs for public-facing facilities include the **Austin Public Library's** development of resource libraries in each quadrant of the city. These facilities would offer larger collections, technology centers, dedicated program space and community meeting rooms, in support of existing neighborhood branch clusters. The **Economic Development Department** has identified a need for a small business development program facility, a community creative center, and discipline-based cultural facilities (e.g. theaters) to assist in implementing their small business development and cultural arts program goals. The Economic Development Department has also identified a need for a Community Creative Center in the Rundberg/Rutland area. Community Creativity Centers (CCC) are designed to provide multi-disciplinary arts spaces. This community-driven creative spaces are designed to meet the specific needs of artists and audiences in communities across the city, while at the same time endeavoring to be as flexible as possible to accommodate the neighborhood. It can also function as a "one-stop" center for the arts, providing information to artists about grants or technical assistance as well as information about city services. The **Austin Public Health Department** has identified the need for neighborhood centers/ clinics in the North Lamar/Rundberg, Colony Park, and Dove Springs areas to address current and future service demands. The Neighborhood Services Unit currently provides food distribution and preventive health services out of the Dove Springs Recreation Center a few times a month, but service delivery is limited and compromised by the lack of sufficient dedicated space for offices, food pantry, clothes closet and other business and client needs. The historical patterns of flooding in the Dove Springs area underscore the lack of basic needs, preventive health and employment support services in the area. Regarding Colony Park's needs, there are currently no City-operated neighborhood centers/ clinics located east of Highway 183; this proposed facility would benefit a large underserved population. The need for a multi-service facility the North Lamar/ Rundberg area is well-supported by several City policy initiatives. North Lamar/ Rundberg is a City-designated mapped initiative area, reflecting a high degree of social service needs in this area. The **Parks and Recreation**

Department has an ongoing need for the expansion of existing facilities to meet the growing demand for recreational and cultural centers due to expanding population. This need includes the expansion of recreation centers based on regional service demand and next phase development for cultural facilities. **Animal Services** has identified a need for an animal shelter located in north Austin to better serve residents who live in the northern part of the city.

New or Expanded Public Safety Facilities

This includes long-term needs for new public safety facilities or expansion of existing facilities in order to maintain service levels, or to accommodate projected staffing increases or program changes. Public safety facilities include **Fire and EMS stations, Police substations, headquarters facilities, storage buildings and other operational facilities**. As both the City's population grows and its boundaries expand through annexation, public safety staff needs increase to respond to those service area needs. Along with the increase in staff, facility and equipment needs also increase. However, because of the time and expense of building new facilities, Austin has lagged in providing new substations at the same pace. In some cases, new public safety service requirements in newly annexed areas have been fulfilled through inter-local agreements and/or use of temporary facilities. The leasing of private sector facilities has not been an option because of unique space requirements and infrastructure cost associated with securing the facility and site.

Austin's public safety departments (**Fire, Police, EMS**) each have identified a need for replacement and expansion of their headquarters. In addition, the Austin Police Department has identified the need for funding for the design and construction of the Northwest Region police substation, Northeast police substation, and an Investigations Facility.

Other public judiciary and safety facility needs include relocation and expansion of the **Municipal Court** and development of Satellite Offices to supplement the court's north and south substations when the main courthouse is relocated. The **Communications and Technology Management Department** has identified a need for expansion of the existing Combined Transportation and Emergency Communications Center (CTECC) Facility to respond to increased demands for 9-1-1 call handling and dispatching, and the development of a CTECC back-up center for redundancy in case of a disaster or other event affecting operations at the current CTECC facility. The **Austin Police Department** has also identified a need for the design and construction of a hanger and aircraft maintenance/storage space and ancillary office space for their Air Operations Unit.

New or Expanded Logistical Facilities

This includes long-term needs for new logistical facilities or expansion of existing facilities in order to maintain service levels, or to accommodate projected staffing increases or program changes. Logistical facilities include maintenance yards, service yards, warehouses, training facilities, structures and other facilities to house staff, materials, vehicles and equipment for the City's operations and maintenance services. Like other City facilities, as the need for City services grows with a growing population and city boundaries, the need for logistical facilities to support those services also grows. However, new logistical facilities are especially challenging to locate, often due to neighborhood desire for other uses on a particular property in their neighborhood. However, in order to operate efficiently, the City's logistical facilities need to be located within a certain range of their service area to facilitate reasonable response time and reduce carbon emissions from lengthy trips. Examples of identified logistical facility needs include **Fleet Services'** need for a full service alternative fuel fueling station in the northern sector and a Compressed Natural Gas redundancy site in the southern portion of the city to accommodate the city's growing service areas. Several departments, including **Fleet Services, Austin Resource Recovery,**

and the Public Works Department have identified the need for consolidated service facilities to replace inadequate facilities and meet future growth of service demands.

New or Expanded Administrative Facilities

This includes long-term needs for new administrative facilities or expansion of existing facilities in order to maintain service levels, or to accommodate projected staffing increases or program changes. Administrative facilities primarily include office buildings to house City staff that work for non-public safety General Government departments. Many administrative office expansions can be handled through leases of privately-owned office space. However, the City must weigh the operational expense of long-term leases with the capital costs of building new administrative buildings. An example of an identified new administrative building capital need is the **Austin Public Health Department's** identified need for a public health building. In 2002-2003, the City purchased the Levander Loop property (Betty Dunkerley Campus) with the purpose of building a campus for providing health and animal shelter services. Key to this original plan was the construction of a centralized administrative office building to house public health offices and services. In addition, the *Neighborhood Housing and Community Development Department* has identified an opportunity to partner with *Austin Public Health* to develop on site affordable housing in close proximity to public health services and offices. Finally, Austin Public Health proposed a renovation project for the existing Betty Dunkerley Campus facilities, in order to extend the usable life of these buildings and accrue cost savings through energy efficient upgrades.

New or Expanded Enterprise Department Facilities

This includes long-term needs for new Enterprise Department facilities or expansion of existing facilities in order to maintain service levels, or to accommodate projected staffing increases or program changes. These may include any type of public-facing, logistical, or administrative buildings primarily serving Enterprise Department needs. Enterprise Departments are revenue generating and can adjust the implementation of their capital program needs based on available revenue. Although a dedicated funding source is identified for these capital programs, projected capital project needs typically exceed funding availability. For example, the **Austin Convention Center's** Long-Range Master Plan recommends an expansion of the Austin Convention Center. The City Council is currently exploring expansion options; the Austin Convention Center Department will proceed according to Council's direction. The **Aviation Department** has also identified, through their master planning efforts, the need to expand the existing terminal at Austin-Bergstrom International Airport as well as needed upgrades to security and baggage handling systems. Landside and airside projects are also planned to improve roadways, utilities, and support buildings, and to increase airfield capacity.

Facilities Master Planning and Other Facility Studies

Many departments identified the need for additional facility master planning. This could include facility master planning or future facility location assessments to support anticipated future department program and staffing space needs, assessment of existing buildings to provide renovation/rehabilitation recommendation or other facility studies as needed.

TYPICAL CIP FUNDING SOURCES

Rehabilitation and renovation of existing general government facilities is funded through transfers from operating funds and debt. Most new facilities for general government departments have typically been funded primarily through debt in the form of voter-approved general obligation bonds.

Enterprise departments have historically funded new facilities and facility improvements through operating fund transfers or the issuance of debt.

Capital improvements may include activities related to neighborhood and/or community housing and development.

DEPARTMENT ROLES

The mission of the ***Neighborhood Housing and Community Development Department (NHCD)*** is to provide affordable housing, community development, and small business development services to benefit eligible residents so they can have access to livable neighborhoods and increase their opportunities for self-sufficiency. The ***Austin Housing Finance Corporation (AHFC)***'s primary function is to issue single-family and multi-family bonds to finance affordable housing. AHFC is also the lead agency for the creation of S.M.A.R.T. Housing™ units.

FUTURE CAPITAL NEEDS

Below is a list of identified future housing infrastructure needs for potential City investment, with a description of each provided on the following pages.

Ongoing Capital Programs

Ongoing capital program needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. This can include rehabilitation or replacement of existing infrastructure as well as expansion of infrastructure to meet growth demands.

Highlighted future project needs within the ongoing capital programs are also provided below to illustrate the types of projects that are typically undertaken within that capital program, or to identify significant future planned projects on the horizon. These are provided as a snapshot of planned future projects at this point in time, and are not guaranteed to be implemented in the future. The City needs flexibility in implementing ongoing capital programs in order to adapt to changing circumstances or address urgent needs. Capital needs will be updated annually for planning, coordination, and public transparency purposes.

Dept.	Ongoing Program or Highlighted Project Need	Title
NHCD	Ongoing Program	Acquisition & Development (A&D) Homeownership Program
NHCD	Program Subcategory	Community Land Trust (<i>note: also included in Land Acquisition section</i>)
NHCD	Ongoing Program	Minor Home Repair Program
NHCD	Ongoing Program	Permanent Supportive Housing
NHCD	Ongoing Program	Rental Housing Development Assistance Projects
	Program	Permanent Supportive Housing

Subcategory

Program

Transit-Oriented Affordable Housing Initiatives

Subcategory

Strategic Capital Investments

The City also has needs for strategic capital investments for housing affordability. Strategic investments may include innovative approaches to better meet departments' service to the community, respond to specific City Council-identified capital investment priorities, or to advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City department. Investments in affordable housing infrastructure will be an important part of implementing the Compact and Connected, Household Affordability, and Healthy Austin priority programs of the Imagine Austin Comprehensive Plan.

Dept.	Strategic Program or Strategic Project Need	Title
NHCD	Strategic Program	Community Development Master Planning (<i>note: also included in Area Plans section</i>)
	Highlighted Project Need	Pecan Tillery – Planning Project
	Highlighted Project Need	HHSD Campus/Animal Shelter Site
	Highlighted Project Need	Levander Loop - HHSD Campus/Animal Shelter Site
NHCD	Strategic Program	Land Banking (<i>note: also included in Land Acquisition section</i>)
Other Identified Strategic Investment Needs:		
EDD	Strategic Project Need	Artist Housing/Work Live

DESCRIPTIONS

Ongoing Capital Programs

Acquisition & Development (A&D) Homeownership Program

Neighborhood Housing and Community Development Dept.

The purpose of the A&D Homeownership Program is to address the need for affordably-priced ownership housing within the city. Housing developed through this program are to be owned and occupied by low- to moderate-income households. The 2014 Comprehensive Housing Market Study for Austin identified that there is almost no ownership housing being developed in Austin that is affordable to low- to moderate-income households. The development of new ownership housing provides economic benefits including job creation and increased tax revenues.

Program Subcategory: Community Land Trust :Funds will be utilized for the Austin Housing Finance Corporation to retain ownership of land while selling only the improvements (i.e., the home) to a low- to moderate income buyer. The cost of land is the primary cost driver for home prices in Austin. Removing the cost of land from the equation increases the affordability of the home. This program works in coordination with other programs that further NHCD's mission. Although land owned by AHFC is exempt from property taxes, the homeowner pays property taxes on the improvements only. In areas where land values continue to rise rapidly this practice will ensure preservation of affordability in perpetuity.

Minor Home Repair Program

*Neighborhood Housing and
Community Development Dept.*

The City of Austin has several programs to help low-income households repair their homes and become financially stable. Funds will be needed to carry out minor home repairs and rehabilitation throughout the community. Additional funding is required in order to sustain services facilitated by the GO Repair Program. The GO Repair program is funded with General Obligation Bonds slated to be spent down by Fiscal Year 18-19.

Rental Housing Development Assistance Projects

*Neighborhood Housing and
Community Development Dept.*

Rental Housing Development Assistance (RHDA) program increases or maintains the supply of affordable rental housing by addressing the rental housing needs identified by the City of Austin's Continuum of Housing Services. The 2014 Comprehensive Housing Market Study for Austin identified a serious and growing need for rental housing affordable to low-income households. City of Austin funds in the RHDA Program have demonstrated the ability to leverage more than \$3 in private funding for every \$1 spent. The development of new housing provides economic benefits including job creation and increased tax revenues. Developments that are financed in part by AHFC's authority to issue private activity bonds generate income for the corporation to be used for housing programs. In addition, AHFC may enter into beneficial partnerships with for-profit and non-profit developers to provide AHFC with an ownership stake in a development that can also generate income through cash flows or other arrangements.

Program Subcategories:

- Permanent Supportive Housing: Funds will be used to create new units for Permanent Supportive Housing (PSH) to be occupied by chronically homeless persons or families meeting PSH criteria. Council gave directive to create 350 units of PSH by the end of 2014. Council Resolution 20141002-043 sets a community goal of creating 400 new PSH units in the next 4 years, 200 of which will be Housing First PSH, in the next four years.
- Transit-Oriented Affordable Housing Initiatives: Capital investments can preserve and retain affordable housing proximate to transit thus improving affordability. This ensures households less likely to have cars are positioned to frequently utilize transit, increasing the return on investment on both investments. Transportation is the second largest household expense and greatly impacts overall household affordability in the community. NHCD is pursuing potential capital investments related to locating affordable housing in proximity to transportation and mobility options to improve overall affordability. Dedicating capital investments including affordable housing resources, programs and initiatives in current and future high frequency transit corridors can help maximize opportunities presented around the intersection of housing, transportation and jobs. The FTA New Starts criteria recommends making funding available for

targeted acquisition, rehabilitation, and development of housing, including funding for weatherization and other programs that already exist, but are not focused along transit corridors.

Strategic Capital Investments

Community Development Master Planning

*Neighborhood Housing and
Community Development Dept.*

Funds will be used for Master Plan Development on current and future properties owned by the Austin Housing Finance Corporation. Planning for the development of mixed-use and mixed-income communities in the City and increasing connectivity aligns with the following Imagine Austin Priority Programs: Develop and Maintain Household Affordability Throughout Austin; Invest in a Compact and Connected Austin; Continue to grow Austin's economy by investing in our workforce, education systems, entrepreneurs, and local businesses; and Create a Healthy Austin.

Strategic Project Needs:

- Pecan Tillery – Planning Project: Pre-development work, including design and engineering plans needed for future development of this 2.58 acre property in Govalle-Johnston Terrace. Increases the supply of affordable housing, including housing for special needs populations, in an area with rapidly increasing land values.
- HHSD Campus – Animal Shelter Site: Feasibility/alternatives analysis to define scope of the project, predesign and engineering needed for future development. Funds needed for design and preparation of the site for development of affordable housing. It will help address the City's affordable housing priority.
- Levander Loop - HHSD Campus/Animal Shelter Site: Initial engineering work for pre-development including design and engineering plans needed for future development on 6 acres of the HHSD Betty Dunkerley Campus. Increases the supply of affordable housing, including housing for special needs populations, in an area with rapidly increasing land values.

Land Banking

*Neighborhood Housing and
Community Development Dept.*

The program enables AHFC to acquire and hold land for future affordable housing development. The land can be developed by AHFC or be offered to non-profit or for-profit affordable housing developers. The ability to acquire and hold land for future development offers a hedge against increasing land costs. Federal fund sources generally prohibit land banking due to performance requirements that must be met within specified periods of time.

Other Identified Strategic Investment Needs:Artist Housing/Work Live*Economic Development
Department*

Austin creatives are in need of affordable live/work space. Artist live/work space should generally be larger and more flexible than what is available in the marketplace in order to accommodate the specific needs of artists. Funding and possible land contribution will be necessary to fund this type of development. There is an identified need/gap for this type of housing. If Austin is to remain a center of creativity and as a magnet for its technological and innovation economy, we must also ensure that Austin have a habitat in which its creatives can affordably live. Economic Development Department would coordinate with the Neighborhood Housing and Community Development Department to identify opportunities to collaborate on this project.

TYPICAL CIP FUNDING SOURCES

NHCD has historically had two main sources of CIP funding: S.M.A.R.T Housing and 2006 and 2013 Affordable Housing General Obligation (GO) bond funds. Funds from the City's General Fund reserves has been used in the past in order to continue critical housing programs, prior to voter approval of the 2013 Affordable Housing bond proposition. All CIP funding is transferred to the Austin Housing Finance Corporation (AHFC) through an annual service agreement with the City of Austin that stipulates the City's requirements for disbursement of the funds.

Capital improvements may include activities related to the purchase or acquisition of land, including but not limited to park land, open spaces, or land on which to build new facilities.

DEPARTMENT ROLES

Typically, **individual departments** identify long-term needs for new facilities, parkland and open space. Once a project is funded and it is determined that land acquisition is needed, the **Office of Real Estate Services** acquires or leases property for the City.

FUTURE CAPITAL NEEDS

Below is a list of identified future land acquisition needs with a description of each provided on the following pages.

Ongoing Capital Programs

Ongoing capital program land acquisition needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. Although Land Acquisition plays an important role in this, for purposes of this plan all City Land Acquisition is considered a strategic investment because of the inherent strategic potential for meeting multiple City goals when locating new city infrastructure.

Strategic Capital Investments

Strategic investments may include innovative approaches to better meet departments' service to the community, respond to specific City Council-identified capital investment priorities, or to advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City department. Investments in land acquisition will be an important part of implementing the Compact and Connected, Green Infrastructure and Sustainable Water priority programs of Imagine Austin.

Dept.	Strategic Program or Strategic Project Need	Title
Various	Strategic Program	Land Acquisition for City Facilities
PARD	Strategic Program	Program - Land Acquisition and Development for Parks <i>(note: also included in Park Infrastructure section)</i>
ATD	Strategic Program	Corridor Right-of-Way Preservation Program <i>(note: also included in the Mobility Infrastructure section)</i>

ATD	Strategic Program	Connectivity Program <i>(note: also included in the Mobility Infrastructure section)</i>
NHCD	Strategic Program	Community Land Trust <i>(note: also included in Housing section)</i>
NHCD	Strategic Program	Land Banking <i>(note: also included in Housing section)</i>
EDD	Strategic Program	Economic Development Corporation – Land Acquisitions
WPD	Strategic Program	Flood Control – Buyouts <i>(note: also included in Stormwater section under Flood Control – Creek Flooding Mitigation and Localized Drainage Programs)</i>
Other Strategic Land Acquisition Needs:		
WPD	Program Subcategory	Open Space/Watershed Management Land Acquisition <i>(note: also included in Stormwater section)</i>

DESCRIPTIONS

Strategic Capital Investments

Land Acquisition for City Facilities

Various Departments

Land acquisition costs for city facilities are often included in the budget estimate for the proposed facility, however sometimes proactive land purchases may be made prior to securing full funding for construction of the facility.

Program – Land Acquisition and Development for Parks

Parks and Recreation Dept.

This program consists of acquisition and development of land for park and open space including property for destination parks, greenways, infill parks and preserves. Properties will be acquired according to the PARD Gap Analysis and long-term needs assessment. PARD must be proactive in the land acquisition program in order to meet the increasing demand for parks and open space, particularly in rapid growth areas. Likewise, PARD has identified the need to acquire infill parks as identified by the Urban Park Workgroup and as described in the Imagine Austin Plan.

Corridor Right-of-Way Preservation Program

Austin Transportation Dept.

The Corridor Right-of-Way Preservation Program includes efforts to accomplish proactive right-of-way (ROW) acquisition in critical corridors where rough proportionality cannot be demonstrated as development occurs.

Connectivity Program

Austin Transportation Dept.

This program provides for the proactive development of new and improved roadway network connections. Many of the proposed new or upgraded connections implement adopted small areas plans created with the community.

Community Land Trust*Neighborhood Housing and
Community Development Dept.*

Funds will be utilized for the Austin Housing Finance Corporation to retain ownership of land while selling only the improvements (i.e., the home) to a low- to moderate income buyer. The cost of land is the primary cost driver for home prices in Austin. Removing the cost of land from the equation increases the affordability of the home. This program works in coordination with other programs that further NHCD's mission. Although land owned by AHFC is exempt from property taxes, the homeowner pays property taxes on the improvements only. In areas where land values continue to rise rapidly this practice will ensure preservation of affordability in perpetuity.

Land Banking*Neighborhood Housing and
Community Development Dept.*

The program enables AHFC to acquire and hold land for future affordable housing development. The land can be developed by AHFC or be offered to non-profit or for-profit affordable housing developers. The ability to acquire and hold land for future development offers a hedge against increasing land costs. Federal fund sources generally prohibit land banking due to performance requirements that must be met within specified periods of time.

Economic Development Corporation – Land Acquisitions*Economic Development Dept.*

The City may wish to establish an economic development corporation that would strategically purchase land for the express purpose of developing industrial, commercial and mixed use job centers. To add a flexible tool to assist with the creation of commercial and mixed used properties that create opportunities for local businesses, jobs for underserved and increase the local tax base.

Flood Control – Buyouts*Watershed Protection Dept.*

Acquisition of property and demolition of houses which are at risk of flooding due to their location within the floodplain or in areas with inadequate local drainage systems. Home buyouts are a potential solution for creek flooding and localized flooding hazards and associated needs are listed in the Stormwater section under Flood Control - Creek Flooding Mitigation Structures and Localized Drainage.

Other Strategic Land Acquisition Needs:Open Space/Watershed Management Land Acquisition*Watershed Protection Dept.*

Acquire properties or conservation easements in the Barton Springs Zone to protect water quality and water quantity in the Edwards Aquifer and at Barton Springs for maintenance of recreational quality and endangered species habitat. Protection of water quality and water quantity in the Barton Springs segment of the Edwards Aquifer has been a high priority for the citizens of Austin as indicated by passage of the Save Our Springs Ordinance and approval of four previous Open Space Bonds starting in 1998. Maintaining or enhancing the quantity of recharge to the Edwards Aquifer is a departmental water quality objective. Funds from the previous bonds are exhausted. Purchase of properties or conservation easements on properties are an optimal solution to protection of water quality and quantity because 1) 2/3 of the area that contributes water to Barton Springs is outside the jurisdiction of the City of Austin (COA), 2) allowable development under county or other city jurisdiction will contribute to a decline in water quality and quantity in the aquifer because of higher impervious cover and less efficient water quality controls, 3) COA ownership of the land allows for management of the land to

improve water quality and quantity of recharge into the aquifer, and 4) it allows COA to open and maintain recharge features to improve recharge efficiency. Specific authorization to purchase property or conservation easements to protect water quality and quantity have been approved by Council on numerous occasions, justifying this method. Purchase of open space is ongoing and funding this effort will allow continuation of this highly successful project.

TYPICAL CIP FUNDING SOURCES

Funding sources for land acquisitions vary by the type of project the acquisition is for. Land acquisition for parkland, open space and new facilities for general government departments have historically been funded primarily through voter-approved general obligation bonds. Enterprise departments typically fund their land acquisitions through operating fund transfers or the issuance of debt.

Capital improvements may include the creation of new and/or improvements to existing transportation infrastructure, including but not limited to preliminary engineering, design, streets, sidewalks, trails, pedestrian improvements, signs, signals, markings, traffic mitigation, bridges and mass transit infrastructure-related activities such as transit plans, and to fund matching initiatives.

DEPARTMENT ROLES

The ***Austin Transportation Department (ATD)*** is responsible for general mobility, including the planning, operation and management of the Austin transportation system. The mission of the Austin Transportation Department is to deliver a safe, reliable and sustainable multimodal transportation system that enhances the environment and economic strength of the region for residents, businesses and visitors while conducting business in a consumer-focused and transparent manner.

The ***Public Works Department (PWD)*** is responsible for maintaining the City's network of urban trails, roadways, bridges, sidewalks, and supporting assets (curb ramps, safety barriers, etc). PWD has an organizational mission to provide an integrated approach to the development, design, construction, and inspection of major capital improvement projects for the City of Austin.

The ***Parks and Recreation Department (PARC)*** is responsible for public trail development and management on City parkland. These trails provide both recreational and bicycle and pedestrian mobility benefits. PARC is also responsible for managing and maintaining roads and parking lots located on parkland.

The Urban Trails Master Plan, approved by Council in 2014, is managed and implemented by ***PWD***, through partnership with ***PARC, ATD, and the Watershed Protection Department (WPD)***.

The ***Planning and Zoning Department (PAZ)*** develops and updates the City's comprehensive plan in addition to a variety of small area plans including neighborhood plans, corridor plans, area-specific master plans, and other plans. Often these plans include recommendations for mobility improvements or other capital investments in the right-of-way to further planning, place-making, or development goals in the planning area. In addition, PAZ is responsible for the Great Streets development program, which reimburses qualifying downtown private developments that construct streetscape improvements meeting Great Streets standards. PAZ's counterpart in development application review, the ***Development Services Department***, ensures that provision of infrastructure through private development meets the City's standards.

The ***Economic Development Department (EDD)*** contributes to the implementation of mobility infrastructure needs through providing leadership and staff participation on small area and city-wide plans, special planning initiatives, redevelopment, and implementation of specialized economic development and policy initiatives. EDD facilitates the use of public-private partnerships to redevelop targeted areas of the city, which allows the use of the City's resources as well as those of a private developer. Examples include the Soul-y Austin Commercial Stabilization Program, which facilitates the funding of infrastructure repair and streetscape improvements in strategically targeted commercial

areas. EDD manages the public-private partnership through the use of Master Development Agreements. Examples include the Seaholm Redevelopment, and the Colony Park Master Plan, which include individual mobility needs in order to improve connectivity and public safety.

FUTURE CAPITAL NEEDS

Below is a list of identified future mobility infrastructure needs with a description of each provided on the following pages.

Ongoing Capital Programs

Ongoing capital program needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. This can include rehabilitation or replacement of existing infrastructure as well as expansion of infrastructure or capacity improvements to meet growth demands.

Highlighted future project needs within the ongoing capital programs are also provided below to illustrate the types of projects that are typically undertaken within that capital program, or to identify significant future planned projects on the horizon. These are provided as a snapshot of planned future projects at this point in time, and are not guaranteed to be implemented in the future. The City needs flexibility in implementing ongoing capital programs in order to adapt to changing circumstances or address urgent needs. Capital needs will be updated annually for planning, coordination, and public transparency purposes.

EXISTING INFRASTRUCTURE REHABILITATION, REPLACEMENT, OR MANAGEMENT

Dept.	Ongoing Program or Highlighted Project Need	Title
PWD	Ongoing Program	Street Improvements Program
	Program Subcategory	Arterial and Primary Collector Street Reconstruction
	Program Subcategory	Residential Area Street Reconstruction
	Program Subcategory	Street Rehabilitation
	Program Subcategory	Intersection Conversion from Asphalt to Concrete
	Program Subcategory	Bus Lane Conversion from Asphalt to Concrete
	Program Subcategory	Curb and Gutter Rehabilitation and Replacement
	Program Subcategory	Street Reconstruction – Utility Participation/Coordination
PWD	Ongoing Program	Citywide Sidewalk and Curb Ramp Improvements
	Program Subcategory	Sidewalk Rehabilitation and Replacement
PWD	Ongoing Program	Bridges, Culverts and Structures

	Highlighted Need	Red Bud Trail Bridge over Lady Bird Lake
	Highlighted Need	Barton Springs Rd. Bridge over Barton Creek
	Highlighted Need	William Cannon Railroad Overpass (east end)
	Highlighted Need	William Cannon Railroad Overpass (west end)
	Highlighted Need	Delwau Lane Bridge over South Boggy Creek
	Highlighted Need	Riverside Detaining Wall
	Program Subcategory	Rehabilitation and Replacement of Pedestrian Bridges
	Program Subcategory	Low Water Crossings
ATD	Ongoing Program	Traffic Signal/ATMS System—Rehabilitation and Replacement
PARD	Ongoing Program	Program – Parking Lots and Roadway <i>(note: also included in the Park Infrastructure section)</i>
	Highlighted Project	Zilker Clubhouse - Parking lot and roadway

EXPANSION/CAPACITY IMPROVEMENTS

Dept.	Ongoing Program or Highlighted Project Need	Title
ATD	Ongoing Program	Traffic Signal/ATMS System—Upgrades and Expansion
ATD	Ongoing Program	Transportation Network Safety and Mobility Improvements
	Program Subcategory	Local Area Traffic Management
	Program Subcategory	Railroad Crossing Improvements
ATD	Ongoing Program	Citywide On-street Active Transportation Facilities
	Program Subcategory	Bicycle Facility Network Build Out with Street Maintenance Program
	Program Subcategory	Active Transportation Network Barrier Removal
	Program Subcategory	All Ages and Abilities Bicycle Network
	Program Subcategory	Bike Share Expansion

	Program Subcategory	Pedestrian Crossing Program
PWD	Ongoing Program	Citywide Sidewalk and Curb Ramp Improvements
	Program Subcategory	New Sidewalk and Ramp Construction Program
PWD	Ongoing Program	Urban Trails Improvements
	Highlighted Need	Austin to Manor Phase 2
	Highlighted Need	YBC Urban Trail
PARD	Ongoing Program	Program - Park Trails <i>(Note: also included in the Park Infrastructure section)</i>

Strategic Capital Investments

Strategic investments represent innovative approaches to better meet departments' service to the community, respond to specific City Council-identified capital investment priorities, or to advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City department. Investments in mobility infrastructure will be an important part of implementing the Compact and Connected, Creative Economy, Healthy Austin and Green Infrastructure priority programs of Imagine Austin.

Dept.	Strategic Program or Strategic Project Need	Title
ATD	Strategic Program	Regional Partnership Projects
	Strategic Project Need	I-35 Corridor Improvements
	Strategic Project Need	Project Connect
	Strategic Project Need	Match Fund for Grants
	Strategic Project Need	Mopac Corridor Improvements
ATD/ PWD/ PAZ	Strategic Program	Corridor Mobility Development Program
	Program Subcategory	Corridor Mobility Master Planning/Prelim. Engineering Reports (ATD)
	Program Subcategory	Transit Speed and Reliability Program (ATD)
	Program Subcategory	Corridor Right-of-Way Preservation Program <i>(note: also included in the Land Acquisition section)</i> (ATD)
	Program Subcategory	Connectivity Program <i>(note: also included in the Land Acquisition section)</i> (ATD)
	Program Subcategory	Substandard Streets (PWD)
PWD	Strategic Program	Neighborhood Partnering Program <i>(note: also included in Park Infrastructure section)</i>
PAZ	Strategic Program	Small Area Plan Implementation <i>(note: also included in Area Plans section)</i>
	Highlighted Project Need	Congress Ave. Streetscape Improvement Project – construction
	Highlighted Project Need	East 6 th Street (Congress Ave to IH-35 – construction)
	Program Subcategory	Implementation of South Central Waterfront Plan
	Highlighted Project Need	South Central Waterfront Plan Implementation – Barton Springs Drive East <i>(note: also included in Area Plans section)</i>
	Highlighted Project Need	South Central Waterfront Plan Implementation – Bouldin Creek Trail <i>(note: also included in Area Plans section)</i>

Highlighted Project Need		South Central Waterfront Plan Implementation – Existing arterial upgrades <i>(note: also included in Area Plans section)</i>
PAZ	Strategic Program	Great Streets Program
	Strategic Project Need	Cesar Chavez Promenade (San Antonio to Lamar)
	Strategic Project Need	East 8 th Street (Congress Ave. to IH-35)
	Strategic Project Need	W. 6 th Street (Congress to Lamar)
	Strategic Project Need	5 th Street (IH-35 to Lamar)
	Strategic Project Need	San Jacinto (Cesar Chavez to MLK)
	Strategic Project Need	Red River (Cesar Chavez to 15 th)
	Strategic Project Need	4 th Street (Trinity to Rio Grande)
	Strategic Project Need	Trinity Street (between Cesar Chavez and 11 th Street)
EDD	Strategic Program	Soul-y Austin Commercial Stabilization Program <i>(note: also included in Area Plans section)</i>
Other Strategic Project Needs:		
EDD	Strategic Project Need	Colony Loop Drive <i>(note: also included in Area Plans section)</i>
EDD	Strategic Project Need	Seaholm District Railroad Pedestrian and Bicycle Crossing <i>(note: also included in Area Plans section)</i>

DESCRIPTIONS

Ongoing Capital Programs

EXISTING INFRASTRUCTURE REHABILITATION, REPLACEMENT OR MANAGEMENT

Street Improvements Program

Public Works Dept.

This program is for street reconstruction and rehabilitation projects to address the condition of the existing streets and bring the infrastructure up to current standards and designs. Projects may include but are not limited to: streets, sidewalks, curbs, gutters, ramps, bicycle lanes, traffic management devices, streetscapes and drainage improvements.

Program Subcategories:

- Arterial and Primary Collector Street Reconstruction: The Arterial and Primary Collector Street Reconstruction program is for full-depth street reconstruction on arterial and primary collector streets with failed pavement throughout the City of Austin. PWD has the requirement to maintain 80% - 85% of the existing pavements in satisfactory (C) or better condition on a sustained basis. Capital funds are the primary resource used to raise the level of D-rated and F-rated pavements. Projects designed with prior bond funding will be considered a priority.
- Residential Area Street Reconstruction: The Residential Area Street Reconstruction program is for full-depth street reconstruction on residential and neighborhood streets with failed pavement throughout the City of Austin. PWD has the requirement to maintain 80% - 85% of the existing pavements in satisfactory (C) or better condition on a sustained basis. Capital funds are the primary resource used to raise the level of D-rated and F-rated pavements.
- Street Rehabilitation: Street rehabilitation funding will be applied to address streets in poor (D) condition. The project planning approach incorporates coordination with other scheduled and pending work. PWD has the requirement to maintain 80% - 85% of the existing pavements in satisfactory (C) or better condition on a sustained basis. Capital funds are the primary resource used to raise the level of D-rated and F-rated pavements.
- Intersection Conversion from Asphalt to Concrete: These projects will upgrade asphalt intersections to concrete. Many intersections for primary roadways experience accelerated deterioration due to heavy traffic. These intersections are difficult to maintain on a regular basis due to many factors, including cost, traffic control, etc. Upgrading these asphalt intersections would provide a significantly increased service life and limit disruptions to traffic due to maintenance operations.
- Bus Lane Conversion from Asphalt to Concrete: These projects will upgrade asphalt bus lanes to concrete. Candidates include arterials with weak to marginal subgrade that have D & F conditions. Bus lanes experience accelerated deterioration due to heavy loading. The cost of maintaining these lanes is significant and is required more regularly than lanes subject to normal traffic. Upgrading asphalt bus lanes would increase service life and minimize disruptions to traffic due to maintenance operations.
- Curb and Gutter Rehabilitation and Replacement: These projects will rehabilitate and replace deteriorated curb and gutter. The current street maintenance budget does not cover the cost to replace deteriorated curb and gutter along street maintenance projects. Omitting repair of curb and gutter can accelerate deterioration of the street and also create drainage concerns for citizens.
- Street Reconstruction – Utility Participation/Coordination: These projects are coordination

opportunities with the Austin Water Utility (AWU) and Watershed Protection Department (WPD). Coordinating work between departments is cost efficient and upholds the dig-once coordination opportunity objectives.

Citywide Sidewalk and Curb Ramp Improvements

Public Works Dept.

This program is to provide Americans with Disabilities Act (ADA) compliant sidewalks and curb ramps throughout the City. It will implement the City of Austin's Sidewalk Master Plan and the Council-adopted Americans with Disabilities Act (ADA) Transition Plan. This is a critical program for encouraging walking as a viable mode of transportation, improving pedestrian safety and mobility for people with disabilities, and enabling people to walk to and from transit stops. It implements a variety of Imagine Austin policies particularly related to the Compact and Connected Priority Program.

Program Subcategory: Sidewalk Rehabilitation and Replacement: The Sidewalk Rehabilitation & Replacement Program is to replace existing failed and/or non-ADA compliant sidewalks and curb ramps to maintain conformance with Department of Justice guidance and ADA requirements. This program is for the implementation of the Council-adopted City of Austin's ADA Transition Plan. The Sidewalks Rehabilitation and Replacement Program is to provide access to public facilities, remove obstructions and slopes, and address the absence of curb ramps according to the requirements of the Americans with Disabilities Act.

Bridges, Culverts and Structures

Public Works Dept.

The Bridges, Culverts & Structures program is to design and implement bridge and retaining wall repairs throughout the City. Funding will be used for improvements that cannot be addressed through the annual maintenance plan. Bridges and culverts are critical locations in the roadway system which cannot be structurally unsound, deficient in safety, or have damage that is left unaddressed for any substantial length of time. Additionally, railings and other protection systems may be obsolete or may not meet current engineering standards. These structures form critical links within the roadway system with limited or no alternative routes.

Highlighted Project Needs:

- Red Bud Trail Bridge over Lady Bird Lake: Build a multi-span bridge that will connect Austin to West Lake over Lady Bird Lake just downstream of the Tom Miller Dam. The bridge consists of two structures; the primary structure has experienced substructure degradation and been repaired several times due to flood flows from high volume dam releases by the Lower Colorado River Authority (LCRA). The primary bridge received an all-time low Serviceability Rating of 36.4 (out of 100) in the mid-1990s through the Texas Department of Transportation (TXDOT) Bridge Inspection Appraisal Program (BRINSAP). A thorough and rigorous engineering study was then performed by CFX Engineering in 1996 to determine the remaining life of both structures and to design an interim strengthening project, completed in 1998. The interim enhancements were only intended to extend the usable life of the structure through the 6 year construction of the Ullrich Water Treatment Plant expansion project and until the City could aggressively secure capital funding to replace the bridges. Austin Water Utilities currently on the bridge consist of a 16" water main, a 6" inverted siphon, and a 10" inverted siphon and its associated 6" air jumper. The two inverted siphons that are attached to the bridge carry wastewater that is generated by the City of Austin and City of West Lake Hills customers on the west side of Town Lake and by the Ullrich Water Treatment Plant.
- Barton Springs Rd Bridge over Barton Creek: Improvements at the intersection of Barton

Springs Rd & Robert E Lee: bridge, retaining wall, structural sidewalk, sidewalk connectivity, and bike lanes as well as protecting the Zilker Park, Barton Creek, and the creek-side amenities below. The current bridge is 212' long and 58'-8" wide. Structurally it appears to be in fair condition; however, the deck width and geometry are extremely obsolete. The bridge is currently a bottleneck for all modes of travel on Barton Springs Rd approaching Zilker Park from the east.

- William Cannon Railroad Overpass (east end): This project aims to remove a portion of the Mechanically Stabilized Earth (MSE) wall on the east side of the bridge and replace it with an elevated structure, thus extending the bridge to the east. The MSE Walls on both side of the bridge have experienced movements/deflections that has caused noticeable separation between the sidewalk and the street and has triggered major cracking in the roadway surface.
- William Cannon Railroad Overpass (west end): This project aims to remove about 500 feet of the existing Mechanically Stabilized Earth (MSE) wall on the west side of the bridge and replace it with an elevated structure, thus extending the bridge 500 feet to the west. The MSE Walls on both side of the bridge have experienced movements/deflections that has caused noticeable separation between the sidewalk and the street and has triggered major cracking in the roadway surface.
- Delwau Lane Bridge over South Boggy Creek: This project is a bridge replacement due to age, design, and damage to the bridge from flooding events. This project is related to other plans and programs in the Boggy Creek area. This bridge provides the only access point to the residences and a business beyond the bridge. This structure has been damaged numerous times during the flooding of Boggy Creek. The extensive damage and the flood levels often over-topping the bridge requires a bridge replacement with a much longer span structure to remove this bottle neck crossing from the creek system as well as scour mitigation against future flooding.
- Riverside Dr Retaining Wall: This project will replace the aging, deteriorated wall on E Riverside Dr. between Newning Ave and Alameda Dr. Existing retaining wall is deteriorated and needs to be replaced.

Program Subcategories:

- Rehabilitation and Replacement of Pedestrian Bridges The Bridges, Culverts & Structures program designs and implements pedestrian bridge repairs throughout the City. Funding will be used for improvements that cannot be addressed through the annual maintenance plan. Pedestrian bridges form critical links in the transportation system with limited alternative routes. These bridges cannot be structurally unsound, deficient in safety, or have damage that is left unaddressed for any substantial length of time. Additionally, railings and other protection systems may be obsolete or may not meet current engineering standards.
- Low Water Crossings: Improvements to low water crossings, including widening narrow low water crossings to provide shoulder areas. Many low water crossings require rehabilitation because of repeated flooding. Many low water crossings are narrow. Guardrails cannot be installed which would restrict flow. As a result, many low water crossings need to be widened to provide shoulder areas to reduce safety hazard.

Traffic Signal/ATMS System –Rehabilitation and Replacement*Austin Transportation Dept.*

The Traffic Signal/Advanced Transportation Management System (ATMS) is used to manage over 1,000 signals & pedestrian hybrid beacons (PHB) plus CCTV cameras, travel time & volume sensors, school zone & other beacons, and dynamic message signs (DMS). ATMS strategies assist with managing the impact of peak commute times, incidents, roadway construction, and special events that result in roadway or lane closures. The ATMS manages signal controllers, dynamic message signs (DMS), CCTV cameras, travel time and count sensors, transit signal priority, emergency vehicle preemption, etc. Rehabilitation/replacement is needed to address equipment that at the end of its useful life. Such equipment may experience frequent malfunctions or failures or may no longer be supported by the manufacturer. In order to maintain safe and reliable signal operation, unreliable and unsupported equipment needs to be replaced.

Program – Parking Lots and Roadways*Parks and Recreation Dept.*

Program will consist of addressing the highest priority sites in order to maintain safe, durable and accessible vehicular access for park patrons. Internal parking lot and roadway pavement at a number of the Department's heavily used facilities are in an advanced stage of deterioration. Park roads and parking areas sustain heavy use throughout the year yet annual maintenance has not been regularly provided due to general fund shortfalls. Continued deterioration may result in safety and ADA access issues as well as runoff and erosion problems.

Highlighted Project Need: Zilker Clubhouse – Parking Lot and Roadway: Provide approximately 40,000 square feet of ADA compliant paved parking, including pedestrian linkages to building and terrace areas, proper signage and striping, as well as associated water quality measures to address parking lot runoff. The Zilker Clubhouse is a 1300 square foot rustic stone clubhouse with 2,000 square feet of patio. This historically significant, reservable facility is located high within the 351 acre Zilker Metro Park and provides a remarkable vantage point of the Zilker Preserve and the City of Austin skyline. This intensively-used, revenue-generating facility suffers from poor access and a heavily deteriorated and deeply rutted gravel and grass parking area. The current parking area at the Zilker Clubhouse is a poorly organized, heavily rutted gravel and grass area prone to dust, erosion and uneven footing for facility patrons. The rolling site topography adds to the pedestrian challenges. This can be compounded by poor visibility during evening functions, posing further tripping and falling risk to visitors. Adequate parking facilities are deemed necessary for this facility to serve current and future demand in a gracious and code compliant manner.

EXPANSION/CAPACITY IMPROVEMENTS**Traffic Signal/ATMS System—Upgrades and Expansion***Austin Transportation Dept.*

The Traffic Signal/Advanced Transportation Management System (ATMS) is used to manage over 1,000 signals & pedestrian hybrid beacons (PHB) plus CCTV cameras, travel time & volume sensors, school zone & other beacons, and dynamic message signs (DMS). As Austin grows, more people travel for work, recreation, and other reasons. ATMS strategies assist with managing the impact of peak commute times, incidents, roadway construction, and special events that result in roadway or lane closures. The ATMS manages signal controllers, dynamic message signs (DMS), CCTV cameras, travel time and count sensors, transit signal priority, emergency vehicle preemption, etc. The Traffic Signal/ATMS addresses mobility and access for the growing demand, whether walking, cycling, using transit, or driving. New signals,

pedestrian hybrid beacons (PHBs), rapid flashing beacons (RFBs), and school zones and other beacons are needed for adequate mobility. PHBs and RFBs can facilitate pedestrian crossings where a typical traffic signal may not be justified. Modernization and upgrading of some equipment is also needed to provide additional functionality, increased reliability, or compatibility with other equipment..

Transportation Network Safety and Mobility Improvements*Austin Transportation Dept.*

This program designs and constructs safety and mobility improvements to locations of concern on the transportation network. It provides an ongoing ranked and prioritized assessment of locations that can be improved with engineering solutions. This program funds implementation of projects that respond to documented safety and mobility needs. Improvements are systematically evaluated, designed, and constructed at locations in a responsive and timely manner. Improvements can include adding medians, pedestrian refuge islands, and travel lanes; modifying travel lanes, curb locations, and traffic signal operation; closing median openings and driveways; and converting intersections to modern roundabouts or other innovative designs. This program provides focused and sustainable means to address critical safety and mobility needs. Implementation allows for cumulative improvement to the transportation system.

Program Subcategories:

- Local Area Traffic Management: This program installs traffic calming improvements as requested and as engineering reviews and funding allow. The devices installed are most commonly speed humps, speed cushions, and traffic circles. Devices can also include median islands, bulb outs, and chicanes where appropriate. Commonly referred to as Traffic Calming, the Local Area Traffic Management program responds to community requests to improve the quality and safety of neighborhood streets.
- Railroad Crossing Improvements: This program focuses to improve railroad crossings in Austin, including quiet zones and reports for grade separation and other operational improvements. When a train does not sound its horn for a crossing, the risk of a crash occurring increases by over 66%. To mitigate this risk, safety improvements (such as barriers or upgraded crossing controls) must be installed at the railroad crossing, in order to implement a Quiet Zone. ATD coordinates with Union Pacific Railroad (UPRR), Federal Railroad Administration (FRA) and community stakeholders to implement Quiet Zones, enhance safety at crossings and improve the overall quality of the crossing for the traveling public.

Citywide On-street Active Transportation Facilities*Austin Transportation Dept.*

This program is for new and improved bicycle and pedestrian facilities identified utilizing criteria developed in the Bicycle Master Plan, the Pedestrian Safety Action Plan (currently in development), and that complement the Urban Trails Master Plan. This program is ongoing and received partial funding through the 2016 Mobility Bond, however additional funding is needed to fully implement the plans.

Program Subcategories:

- Bicycle Facility Network Build Out with Street Maintenance Program: This program provides for the installation of bicycle facilities in coordination with the street preventative maintenance program, covering capital cost that may include modifying curbs and/or medians and adding pavement and/or relocating utilities. This coordination is the most cost effective opportunity to meet the goals in the Council adopted Bicycle Master Plan which calls for 75% of the complete bicycle network recommendations be complete by 2020. The coordinating of bicycle lane installation with Street and Bridge's Preventative Maintenance Program results in installations at 1/10th of the cost as compared to stand alone projects.

- Active Transportation Network Barrier Removal: Installation of bicycle and pedestrian facilities in locations where significant barriers in the network exist requiring street widening, constructing bridges or tunnels, adding or modifying signals, constructing traffic calming. This funding enables the Active Transportation Program to address significant infrastructure barriers to safe bicycle and pedestrian path of travel.
- All Ages and Abilities Bicycle Network: This program provides for the installation of bicycle facilities separated from motor vehicle traffic, including costs for constructing physically protected bicycle lanes and off-street bikeways or shared use paths. The Council adopted 2014 Bicycle Master Plan recommends a 50% build out of the all ages and abilities bicycle network by 2020 and 80% by 2025. If funded, the City will be able to significantly expand the accessibility of bicycle transportation to people of all ages and abilities.
- Bike Share Expansion: Expand the existing bike share system owned by the City of Austin and operated by Bike Share of Austin, including acquisition of stations, bikes, and modifications to street infrastructure for station installation.
- Pedestrian Crossing Program: The purpose of the Pedestrian Crossing Improvement Program is to fund the design and installation of a wide variety crossing improvements that improve the safety, connectivity and quality of the pedestrian network in the City of Austin. The program would provide a source of funding for crossing improvements that can be installed in conjunction with safety and connectivity projects as well as stand-alone spot improvements identified in the Pedestrian Safety Action Plan. This program was not funded through the 2016 Mobility Bond.

Citywide Sidewalk and Curb Ramp Improvements

Public Works Dept.

This program is to provide Americans with Disabilities Act (ADA) compliant sidewalks and curb ramps throughout the City. It will implement the City of Austin's Sidewalk Master Plan and the Council-adopted ADA Transition Plan. This is a critical program for encouraging walking as a viable mode of transportation, improving pedestrian safety and mobility for people with disabilities, and enabling people to walk to and from transit stops. It implements a variety of Imagine Austin policies particularly related to the Compact and Connected Priority Program.

Program Subcategory: New Sidewalk and Ramp Construction Program: This program is for the implementation of the City of Austin's Sidewalk Master Plan for new sidewalk construction program at adopted target levels. This program is for the implementation of the Council-adopted City of Austin's Sidewalk Master Plan according to the requirements of the Americans with Disabilities Act.

Urban Trails Improvements

Public Works Dept.

The Urban Trails program is for the construction of multi-use trails that provide important accessible routes for transportation and recreation. With the adoption of the Urban Trails Master Plan in October 2014, the City has identified over 47 miles of priority Urban Trails to serve as recreation and transportation throughout Austin.

Highlighted Project Needs:

- Austin to Manor Phase 2: The Austin to Manor Rail with Trail Project - Phase 2 will begin where Phase 1 of the project terminates near the intersection of Decker Lane and Lindell Lane in Walter E. Long Park. This project is identified as a Tier I (high priority) Urban Trail in the Urban Trail Master Plan and completes the Austin to Manor Trail System. Austin to Manor Trail Phase I was completed in 2013.

- YBC Urban Trail: Construct a 5 mile Urban Trail from the Y at Oak Hill to Barton Creek, facilitated by the MoPac Mobility Bridges project. The project would service several major employers (AMD, Freescale), schools (St. Andrews, ACC Pinnacle Campus) and residences.

Program – Park Trails

Parks and Recreation Dept.

Program budget to address the need for trail development and major renovation in parkland city-wide as trails constitute one of the most popular outdoor recreation amenities in the City. Work will include corridor clearing, trail construction, and supporting landscape improvements such as retaining walls, trailhead amenities, signage and general landscape enhancement. Trails on parkland provide both recreation as well as alternative transportation benefit. Public trails are seen as a growing mode of bicycle and pedestrian connectivity consistent with the priority programs promoted by the Imagine Austin Plan. Promoted by the City's Bicycle and Pedestrian Plan and the PARD Long Range Plan, trails rank the highest in user surveys as recreation activities sought on public land.

Strategic Capital Investments

Regional Partnership Projects

Austin Transportation Dept.

ATD serves as the lead on a number of regional transportation projects that require forming partnerships with other agencies. These projects require funding for stages of project development including studies, public engagement and implementation. Improving transportation conditions for Austin and the central Texas region will require work beyond any one governmental agency. Because the Austin area transportation network is comprised of roadways that are owned and/or operated by multiple governmental and quasi-governmental transportation agencies, partnerships among them foster enhanced traffic congestion management. In order to maximize the final outcomes, each agency must be prepared to bring in-kind contributions and/or funding to the partnership.

Strategic Project Needs:

- I-35 Corridor Improvements: In accordance with TxDOT's plans for short and long-term improvements to IH-35, the City will continue to participate to move each viable project through project development and construction. The developed projects will improve mobility, connectivity and safety for all modes of users including automobiles, transit, bicyclists and pedestrians through and across the IH-35 corridor. These projects will assist in managing congestion on the most congested corridor in Texas according to Texas A&M Transportation Institute.
- Project Connect: Project Connect is multi-modal and includes a high-capacity transit system vision for Central Texas. Capital Metro is in the process of refining Project Connect and producing a set of high-capacity transit projects to move forward and pursue local, state and federal funding. Funding from multiple sources and regional partners will be needed to move this vision towards implementation. Improving transportation conditions for Austin and the central Texas region will require work beyond any one governmental agency. Project Connect is a regional planning effort that provides a platform for transparent, inter-agency collaboration. In order to maximize the final outcomes, each agency must be prepared to bring in-kind contributions and/or funding to the partnership.
- Match Fund for Grants: This program better positions the City to seek federal, state and other grants and innovative funding opportunities by making competitive applications or letters of intent for private foundations. The City is often required to provide a portion of a project's cost, often twenty percent, to match with federal or state funds. In order to stretch limited capital infrastructure funding, this program seeks to leverage other funding sources.

This program is consistent with Imagine Austin's implementation strategy to utilize partnerships and the capital improvement program to realize the community's vision and goals.

- Mopac Corridor Improvements: The City of Austin supports the TxDOT/ CTRMA MoPac Corridor Improvement Project. This program provides for the opportunity to partner for realization of the project's goals. The purpose of the project is to improve mobility, manage congestion, provide a reliable transit route to reduce travel times, improve emergency response, and maximize use of the facility. MoPac is one of Austin's most important arteries, serving as a key route to downtown and points beyond. As a primary alternative to Interstate 35, MoPac carries more than 180,000 cars and trucks each day. By 2030, MoPac is projected to serve more than 320,000 cars a day.

Corridor Mobility Development Program*Austin Transportation Dept.*

This is a long-term program to develop and maintain concept designs for our critical transportation network. Resources are needed to implement completed corridor mobility reports and evaluate new corridors every year. There are additional arterial roadways that should have new corridor reports performed, in addition to the remaining lengths of the streets that have been previously examined. In taking a holistic approach to studying ways to improve entire corridors, ATD works to advance numerous community objectives:

- Improve safety
- Increase mobility and accessibility for drivers, pedestrians, bicycles and transit users
- Identify and make specific roadway improvement projects, to deliver these outcomes
- Improve quality of life, for corridor travelers and neighbors
- Support other Imagine Austin, urban design and economic development goals

Program Subcategories:

- Corridor Mobility Master Planning/Prelim. Engineering Reports (ATD): This program allows for periodic in-depth review of arterial corridor operations to assure roadway capacity and safety are optimized for all modes. In many cases, ATD's work on improving Critical Arterials for regional mobility goals informs ATD's corridor reports, and vice versa. The reports address short-, medium-, and long-term transportation improvements.
- Corridor Right-of-Way Preservation Program (ATD): The Corridor Right-of-Way Preservation Program includes efforts to accomplish proactive right-of-way (ROW) acquisition in existing critical corridors. This program works to implement Imagine Austin goals and vision by proactively acquiring right-of-way, specifically for mobility improvements that are unlikely to be required of or otherwise implemented by the private sector as development occurs.
- Connectivity Program (ATD): This program provides for the proactive development of new roadway network connections. Many of the proposed new connections implement adopted small areas plans created with the community. Improved network connectivity allows for traffic to be spread more evenly among the transportation road network, which can provide more choices between destinations and provide additional capacity towards mitigating traffic congestion. These connections are also designed in accordance with the Complete Streets Ordinance.
- Transit Speed and Reliability Program (ATD): Transit-supportive investments include transit priority treatments, signal improvements, bus stop enhancements and relocations, and pedestrian crossing improvements. Partnering with Capital Metro to make these transit-supportive investments will improve the efficiency and reliability of transit services, making transit a better option, and ultimately improving transportation network performance overall.
- Substandard Streets (PWD): Substandard streets are publicly-owned right-of-ways with pavement widths that are typically less than 24 feet across. Substandard streets require aggressive maintenance on shoulders and pavement edges to keep these streets safe with a passable and usable width for two-way traffic. Upgrading substandard streets typically requires funding for pavement and drainage, and some additional funding for bicycle facilities and sidewalks may be necessary where the respective Master Plans dictate such an investment. Work on substandard streets will be prioritized by those streets with poor or failed conditions in order to address safety and street condition needs.

Neighborhood Partnering Program*Public Works Dept.*

The Neighborhood Partnering Program (NPP) allows citizens to partner with the City to propose small to medium scale projects on City-owned property to improve the places in which they live, work and play. As a "cost and effort-share" program, the Neighborhood Partnering Program is able to leverage outside resources and build positive working relationships with neighborhoods by providing public improvement projects initiated by the community opportunities for funding and implementation.

Small Area Plan Implementation*Planning and Zoning Dept.*

Various capital projects implementing adopted neighborhood plans, special regulating district plans, and other small area plans supporting the Imagine Austin Comprehensive Plan. This ongoing program would support implementation of Imagine Austin, by providing funding for significant, catalytic projects recommended by adopted small area plans. Funding these projects would allow for the City to develop demonstration projects that could be built on in other areas, would leverage additional private sector investment in the areas, and would send a signal to the public that the City is serious about implementing its plans.

Strategic Project Needs:

- Congress Ave. Streetscape Improvement Project: Make streetscape Improvements to Congress Avenue that implement the Downtown Austin Plan and Congress Avenue Improvements Study. This project would help to implement the Downtown Master Plan, and would take advantage of the design and engineering work that is currently funded under the 2012 Bond.
- East 6th Street (Congress Ave. to IH-35): Make streetscape improvements to E. Sixth Street between Congress and IH 35 that implement the Downtown Austin Plan. East 6th Street is known nationally and internationally as an entertainment destination, but currently under-performs compared to its potential. This project was identified as a high-priority Transformative project by the Downtown Austin Plan. The project seeks to leverage 6th Street reputation and its physical attributes (including one of the largest concentrations of late 19th century buildings in Texas) by transforming and upgrading the streetscape environment.

Program Subcategory: Implementation of South Central Waterfront Plan

Construct public improvements that implement the South Central Waterfront Plan. Several City plans, adopted and in process, overlap in the South Central Waterfront Plan area. These include: two adopted neighborhood plans; all four of the streets which transect the study area are Core Transit Corridors; and the South Central Waterfront Plan, adopted by City Council in 2016 (the Interim Vision Framework Plan, a precursor to the small area plan, completed in 2014); and the Congress Streetscape project, in process. These plans include recommendations for infrastructure improvements to promote walkability and greater mobility choices related to all four core transit corridors, improved streetscapes throughout, the introduction of new street connections, new urban trail connections along Bouldin Creek, district-wide implementation of exemplary green infrastructure standards, and otherwise enhanced place-making features within this district. If these and other needs raised by the public as part of the planning processes are considered early in the development of the project scope and are sufficiently funded, infrastructure improvement projects within this district have an opportunity to not only address mobility-related issues, but also to support place-making and green infrastructure goals established in the plans, and be better coordinated with future planned development in the area.

Highlighted Project Needs:

- South Central Waterfront Plan Implementation – Barton Springs Drive East: Construct a new green street, which would include spacious landscaping and green infrastructure. This recommendation would set the stage for the new street grid in the SCW Planning Area.
- South Central Waterfront Plan Implementation – Bouldin Creek Trail: Implement Bouldin Creek Trail. This specific recommendation is a catalytic project that provides recreational connectivity and potential public/public partnership that contributes to the green infrastructure network in the SCW vision.
- South Central Waterfront Plan Implementation – Existing arterial upgrades: Design and engineering to upgrade existing arterials. Upgrading the existing arterials are a central component to achieving the SCW Plan's vision of a connected green infrastructure district.

Great Streets Program*Planning and Zoning Dept.*

Streetscape improvements in compliance with the Great Streets Master Plan in Downtown within the following boundaries: MLK, Lamar, IH-35, Cesar Chavez. Improvements include wide sidewalks (minimum 18 feet unless otherwise noted), shade trees, street furnishings, and light poles. The Great Streets Program provides a mechanism to improve the quality of downtown streets and sidewalks, aiming ultimately to transform the public right-of-ways into great public spaces. The “building blocks” of the Program are the Great Streets Master Plan and the adopted Great Streets Standards. The Great Streets Master Plan is a comprehensive and integrated urban design strategy for public right-of-way in Downtown Austin. It provides a vision and the instruments to create a healthy balance among the uses

Strategic Project Needs:

- Cesar Chavez Promenade (San Antonio to Lamar): Make Great Streets Improvements to implement the Cesar Chavez Promenade between San Antonio and Lamar. This project would help to implement the Downtown Master Plan. The City completed the initial four blocks of the Promenade (from Congress Avenue to San Antonio Street) in the early 2000s, and that project (along with other City investments such as 2nd Street improvements) had a transformative effect on the southwest portion of Downtown. But the promenade currently ends (at its western terminus) in a dirt path. The extension project will bring the same level of transformation westward to the Seaholm District, and will have a synergy with Tramell Crow's Green Water Treatment project and the City's new Central Library. This project previously received some funding for preliminary engineering under the roadway reconstruction category within the 2012 Bond.
- East 8th Street (Congress Ave. to IH-35): Make Great Streets Improvements to 8th Street. This project will extend Great Streets improvements eastward from the recently completed portion of 8th Street between Congress Avenue and San Antonio. This project would help to implement the Downtown Master Plan. This eastward extension is critical because (among other reasons) it will provide an east-west linkage between two prior major Great Streets projects: Brazos Street and Colorado Streets.
- W. 6th Street (Congress to Lamar): Make Great Streets Improvements to West 6th Street. This project will make Great Streets improvements to West 6th Street between Lamar and Congress. This project would help to implement the Downtown Master Plan. West 6th Street is critical to Downtown Austin, serving as one of the major westbound routes out of Downtown, connecting the center Downtown (6th and Congress) to the Market District (at 6th and Lamar), and has become a new home for entertainment and dining. This project

- will bring the streetscape up to the level of prominence appropriate for this important corridor.
- 5th Street (IH-35 to Lamar): Make Great Streets Improvements to 5th Street. This project will make Great Streets improvements to 5th Street between IH 35 and Lamar. This project would help to implement the Downtown Master Plan. East 5th Street is a major connector between the Convention Center (and Convention Center Hotels) and the core of Downtown. It also connects two of Downtown's signature parks Republic Square and Brush Square. The Downtown Austin Plan also identified East 5th Street as the location for the Mexican-American Heritage Corridor.
 - San Jacinto (Cesar Chavez to MLK): Make Great Streets Improvements to San Jacinto Street. This project will make Great Streets Improvements to San Jacinto between Cesar Chavez and MLK. This project would help to implement the Downtown Master Plan. San Jacinto Street plays an important role of connecting northward from the core of Downtown up to and through the University of Texas. It also passes immediately adjacent to the Texas Capitol Complex (which likely will undergo transformative changes in the coming decades) and nearby the emerging medical school/hospital/innovation district. San Jacinto also likely will have an important role in accommodating rail transit in coming years. All of these factors justify the City investing Great Streets improvements along the street.
 - Red River (Cesar Chavez to 15th): Make Great Streets Improvements to Red River Street. This Project will make Great Streets improvements to Red River Street between 15th and Cesar Chavez. This project would help to implement the Downtown Master Plan. Red River Street is the easternmost major north-south corridor through downtown. It also borders the Convention Center and is part of the Music as well as Waller Creek Districts. It will eventually connect downtown with the new UT Medical District.
 - 4th Street (Trinity to Rio Grande): Make Great Streets Improvements to 4th Street. This project will make Great Streets improvements to 4th Street between Rio Grande and IH 35. This project would help to implement the Downtown Master Plan. 4th Street is the east-west transit corridor for downtown. In addition, major projects that have implemented Great Streets have been completed or are under construction in the vicinity. The street is also considered the heart of the Warehouse District.
 - Trinity Street (between Cesar Chavez and 11th Street): Make Great Streets Improvements to Trinity Street. This project will make Great Streets improvements to Trinity Street between Cesar Chavez and 11th Street. This project would help to implement the Downtown Master Plan. Trinity Street is one of the major north-south corridors east of Congress Avenue, adjacent to the Convention Center and bisecting the 2nd Street District and East 6th.

Soul-y Austin Commercial Stabilization Program

Economic Development Dept.

This program would fund infrastructure repairs and streetscape improvements. The City of Austin recognizes the significance and role that vibrant commercial districts and corridors with a range of retail, restaurants and community responsive services have in creating socially and economically healthy neighborhoods. As an integral part of our community and economy, these commercial areas offer many benefits to our community including job creation, generation of sales tax and sales revenue, provide convenient access to goods and services, support small business development and importantly foster the sense of place that many of our Austin neighborhoods have. Importantly a Commercial Stabilization Program furthers the Imagine Austins goal of becoming a compact and connected city. Commercial Districts and corridors offer an opportunity to increase and promote pedestrian, bicycle and transit friendly places that improve the quality of life for residents and increase their access to opportunity. A city-wide Commercial Stabilization Plan supports the formation of Merchants Associations,

infrastructure repairs and streetscape improvements, enhanced policies, and beautification efforts that contribute to the local economy. This program will partner with local businesses and other city departments to rehab/replace and/or enhance existing and new infrastructure.

Other Strategic Project Needs:

- Colony Loop Drive *Economic Development Dept.*
 Construction of a new roadway, connecting the existing leg of Colony Loop Dr., which begins at Loyola Lane and serves Overton Elementary School, with the western leg of Colony Loop Drive, which begins at Valleyfield Dr. and connecting to Decker Ln. This project also includes complete street improvements on the existing east and west legs of Colony Loop Dr. to support and enhance the construction of the proposed Colony Loop Drive Connection and provide critical connectivity for the neighborhood. The Preliminary Engineering and/or Design and Construction of the Colony Loop Drive connection, which includes a new complete street roadway beginning at Overton Elementary School and connecting through the Colony Park site to Valleyfield Drive and the Lakeside Community, includes engineering and design of all major utilities and telecommunication infrastructure to support the implementation of the Council adopted Colony Park Master Plan and possible upgrade of necessary utility mains at Loyola Lane. The project will provide critical connectivity for residents and visitors of the Colony Park neighborhood to access the Overton Elementary, Turner-Roberts Recreation Center, Colony Park District Park, and Travis County Expo Center. Installation of this major roadway connection and accompanying infrastructure will play a key role in the ability to foster commercial and residential development during the implementation of the Council adopted Colony Park Master Plan, helping to generate revenue from private investment. The site is currently owned by Austin Housing Finance Corporation (AHFC) and receives 100% tax abatement. Development of the site will put the property back on the tax rolls, increasing the City's revenue. The Colony Park zip code, 78724, only provides 0.4 jobs per housing unit. Additionally, the missing Colony Loop Drive connection hinders public transportation from efficiently servicing the neighborhood. As the Colony Park Master Plan envisions a mixed-income, mixed-use, sustainable development, construction of the Colony Loop Drive connection would increase mobility, foster transit access that serves a broad range of incomes, create much needed connections to existing recreation and educational facilities, and bring jobs and housing closer together. Resolution #20140807-104, directed the City Manager to include neighboring connectivity, public amenity maintenance and governance, and financing options within and adjacent to the City of Austin owned 208-acres associated with the Council adopted Colony Park Master Plan.
- Seaholm District Railroad Pedestrian and Bicycle Crossing *Economic Development Dept.*
 This project will provide a controlled pedestrian and bicycle crossing of the Union Pacific Rail Road (UPRR) on the west side of Lamar. This project was agreed to with UPRR as part of negotiations on the Bowie Underpass and real estate contracts in the Seaholm District. It is vital for safety and access on the west side of Lamar.

TYPICAL CIP FUNDING SOURCES

Mobility Infrastructure capital improvements are funded primarily from general obligation bonds. Departments will also fund some projects outside of the typical bond projects through a transfer from its operating funds. Supplementary funding sources also include Contractual Obligations, Certificates of Obligation, Transportation User Fees, developer and private contributions, parking meter revenue, Federal and State grant funds, federal pass-through funds from the Surface Transportation Program and Metropolitan Mobility (STPMM), and the Capital Metro Build Greater Austin Program.

Capital improvements may include all activities related to the creation of or improvement to parks and recreation infrastructure, including but not limited to amenities, structures, playscapes, sport courts and fields, pools, golf courses, field lighting, trail improvements, master plans or studies, or design of projects.

Note: Parks and Recreation facility improvements or new building needs are identified in the Facilities section, and parkland acquisition needs are identified in the Land Acquisition section and this section. Park Trails are included in both this section and the Mobility section, since they provide both recreational and pedestrian and bicycle mobility benefits.

DEPARTMENT ROLES

The **Parks and Recreation Department's (PARD)** mission is to provide, protect and preserve a premier park system that promotes quality recreational, cultural and outdoor experiences for Austin. To help the department achieve this mission, the following strategic goals have been developed as part of the PARD Strategic Plan:

- Implement comprehensive communication strategies
- Provide accessible, diverse, inclusive, and innovative programs and services
- Protect Austin's parkland and facilities for our future generations
- Achieve and maintain a standard of excellence for park systems
- Diversify funding strategies for Austin parks and recreation services

The Capital Improvement Program is the vehicle by which the Parks and Recreation Department acquires and develops land to satisfy the goals of PARD's mission statement. As land is purchased and facilities are developed through the CIP, PARD is able to meet the demand for diverse, safe, and universally accessible recreational opportunities and outdoor experiences for Austin's citizens and visitors. Another key purpose of PARD's CIP is to repair, renovate and replace its aging park facilities within this rapidly growing city. Both renovation and new facility development are done with an eye toward long-term operations and maintenance concerns so as to not adversely impact future budgets.

The **Public Works Department** manages the Neighborhood Partnering Program, including community outreach, evaluation of applications, prioritization, allocation of funding, project management and coordination with applicants for project implementation. Applications for community projects can include park improvements.

FUTURE CAPITAL NEEDS

Below is a list of identified future park infrastructure needs with a description of each provided on the following pages.

Ongoing Capital Programs

Ongoing capital program needs are identified by departments as necessary to continue maintaining an

acceptable level of service for the City's basic infrastructure responsibilities. This can include rehabilitation or replacement of existing infrastructure as well as expansion of infrastructure to meet growth demands.

Highlighted future project needs within the ongoing capital programs are also provided below to illustrate the types of projects that are typically undertaken within that capital program, or to identify significant planned projects on the horizon. These highlighted projects shown herein are intended to be a snapshot in time and are not guaranteed to be implemented in the future. The City needs flexibility in implementing ongoing capital programs in order to adapt to changing circumstances or address any unforeseen urgent needs. Capital needs will be updated annually for the purposes of planning, coordination, and public transparency.

Dept.	Ongoing Program or Highlighted Project Need	Title
PARC	Ongoing Program	Program – Park Improvements
	Highlighted Need	Pease District Park – Phase 1 Implementation
	Highlighted Need	Walter E Long Metro Park – Phase 1 Implementation
	Highlighted Need	Holly Shores/Festival Beach Phase 2 Implementation
	Highlighted Need	Colony District Park – Phase 2 Implementation
PARC	Ongoing Program	Program - Playscapes
	Highlighted Need	Zilker Metro Park – Nature-based Playscape
PARC	Ongoing Program	Program - Aquatic
	Highlighted Need	Colony Park Municipal Pool - Development
PARC	Ongoing Program	Program - Cemeteries
PARC	Ongoing Program	Program - Park Trails <i>(note: also included in Mobility section)</i>
PARC	Ongoing Program	Program - Athletics
PARC	Ongoing Program	Program - Tennis
	Highlighted Need	Pharr Tennis Center – Court Renovations
PARC	Ongoing Program	Program – Golf
	Highlighted Need	Roy Kizer and Grey Rock – Greens Renovation
PARC	Ongoing program	Program – ADA and Safety
PARC	Ongoing Program	Program – Parking Lots and Roadways <i>(note: also included in Mobility section)</i>
	Highlighted Need	Zilker Clubhouse – Parking Lot and Roadway

PARD	Ongoing Program	Program – Land Acquisition and Development for Parks <i>(note: also included in Land Acquisition section)</i>
PARD	Ongoing Program	Program – Master Plans
PARD	Ongoing Program	Program – Buildings New
PARD	Ongoing Program	Program – Buildings Renovation
PWD	Ongoing Program	Neighborhood Partnering Program <i>(note: also included in Mobility section)</i>

Strategic Capital Investments

The City also has needs for strategic capital investments in Park Infrastructure. Strategic investments may include innovative approaches to better meet departments' service to the community, respond to specific City Council-identified capital investment priorities, or to advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City department.

Investments in Park Infrastructure will be an important part of implementing the Healthy Austin and Green Infrastructure priority programs of Imagine Austin. To achieve this goal, PARD is engaged with multiple Imagine Austin Implementation Teams focused on long-term land management and green infrastructure initiatives.

Public-Private Partnerships continue to play a critical role in both capital project delivery and long-term operations and maintenance of PARD facilities. The Department is continuously seeking opportunities with non-profit and private entities to leverage existing capital funding with outside funding for greater project delivery. Examples of this new model are evident in recent and on-going work at Republic Square, Waller Creek District, Barton Springs Pool, Butler Trail, AISD Shared-use Sites, Pease District Park and the Shoal Creek Greenbelt. Each of these projects represents a unique opportunity to enhance and raise the level of service on parkland that would have otherwise been deferred or unachievable given current allocation of resources under both capital and general funds.

Dept.	Strategic Program or Strategic Project Need	Title
PARD	Strategic Program	Waller Creek District – Redevelopment
PARD	Strategic Program	Program – Historic Resource Preservation
	Highlighted Project	Norwood House and Grounds - Reconstructions
PARD	Strategic Program	Program – AISD School Infill Parks
Other Strategic Project Needs:		
PARD	Strategic Project Need	Seaholm Intake Facility – Adaptive Re-use

DESCRIPTIONS

Program – Park Improvements

Parks and Recreation Dept.

Program shall consist of projects with scope of broadly applied park renovation and development consistent with recently completed park Master Plans. These projects represent a strategic re-investment or new development opportunity in Metropolitan, District, Neighborhood, Pocket and Special parks whose proposed enhancements have been identified and prioritized through broad-based community input and support. The projects will be organized to maximize efficiency and coordination of concurrent work items and to minimize facility down-time. Through an ongoing process of community collaboration, partnering and visioning, Master Plans have been completed for a number of PARs high profile parks and facilities. This Program seeks to provide immediate follow-up and implementation of high priority improvements set forth within these long-range, community-based vision plans in order to capitalize on support, momentum and timeliness of investment. Many of these projects offer leveraging opportunities with other city departments, outside agencies, grants and community partnering.

Highlighted Project Needs:

- Pease District Park – Phase 1 Implementation: Phase 1 implementation of the Master Plan prepared in 2012 in conjunction with the Pease Park Conservancy to include playscape replacement, adaptive reuse of historic restroom building, picnic area enhancements and trail improvements. A Master Plan for Pease Park was prepared as a collaborative effort between the Pease Park Conservancy and PAR and adopted by the Austin City Council in October of 2014. With a focus on enhancing and preserving the naturalistic feel of the park, opportunities were identified for improving gateways, sensitively adapting the historic Tudor Cottage restroom building and enhancing the playscape area. The Pease Park Conservancy has committed to a fund raising campaign for the preparation of final design documents and for the subsequent construction phases. PAR will seek to identify matching funds for this effort through its capital program, including where possible PLD, grants, and future bond funding. Pease Park is one of Austin's oldest and most beloved parklands. Situated along the banks of Shoal Creek, this heavily used District Park features historic architectural elements and landscape areas that have deteriorated due to age, flooding, and heavy use. Watershed Protection recently completed a five million dollar riparian zone restoration project to repair past erosion damage, protect at-risk heritage trees, and to bring innovative and sustainable stormwater management landscape features into the park. The Pease Park Master Plan seeks to layer upon these restorative projects with renovated and new recreation facilities in order to serve current and future use. These proposed site enhancements seek to capitalize on the momentum of public interest, support and collaboration currently exemplified by our team of outside stakeholders and multiple city departments.
- Walter E Long Metro Park – Phase 1 Implementation: Design and Phase 1 Development for a signature 1,800 acre destination park in the rapidly growing and park deficient northeast Austin area consistent with the recently initiated master plan for the park. Funding under this proposal would provide the public investment needed to initiate a major phase of development including a public private partnership to leverage private funding and construct and operate a recreational facility to serve as an anchor for the project. The master plan will be driven by the site conditions and community need and demand for recreation programs and facilities, but will also include a business plan that recommends

- strategies and partnerships for the implementation of major recreational facilities. The proposed project addresses the gap for developed parkland and a destination park in this part of Austin, and supports the Spirit of East Austin Initiative and the parkland needs related to the significant growth planned in the surrounding area.
- Holly Shores / Festival Beach – Phase 2 Implementation: Phase 2 implementation of the recently adopted master plan for Holly Shores / Edward Rendon Sr. Park at Festival Beach to include ADA access, restroom improvements, shoreline enhancements, and family picnic and play areas. In 2014 the Master Plan for Holly Shores / Edward Rendon Sr. Park at Festival Beach was completed after an intensive two year planning and community engagement process. The resulting plan for these 90 acres of parkland along the north shore of Lady Bird Lake envisions enhancements to existing parkland as well as new trail and recreation facilities on 9 acres of newly acquired parkland formally contained within the Holly Power Plant. A modest amount of funding was provided under the 2012 bond program for phase one implementation of the master plan. However this funding falls well short of what will be necessary to address the overall project need within this area. Projects within the area include ADA access improvements, restrooms, shoreline enhancements, family picnic and children's play areas, additional trails and adaptive re-use of buildings and shoreline structures remnant from the Holly Power Plant facility. Improvements will be phased and prioritized according to expressed community desires. The implementation of improvements under this program represent a timely follow-through with project implementation to help realize the vision of the recently completed Master Plan. Matching funds will be sought through various grant programs, particularly brownfields redevelopment funding that may be applicable to the transformation of the power plant site to public parkland use. Additional city funds for grant match and neighborhood partnering will help facilitate these improvements, much in demand by this traditional yet rapidly growing neighborhood. In particular the trail improvements envisioned by the plan will provide vastly improved ADA accessible neighborhood access, while closing a critical gap in the popular multi-use Butler Trail on Lady Bird Lake.
 - Colony District Park – Phase 2 Implementation: Next phase of improvements from the recently adopted master plan to include playscape amenities, expansion of trail network, community gardens, food forest (orchard), wildlife gardens, and other site amenities. The recently adopted Master Plan for Colony Park was prepared in 2014 in conjunction with Neighborhood Housing Sustainable Communities Initiative. This project represents a continuation of work initiated under the 2012 GO Bond and would likely include leveraging of City funding with outside grant opportunities. The vision for Colony District Park as outlined in the master plan draws upon many of the growing trends in urban development by integrating parks and other natural spaces.

Program – Playscapes*Parks and Recreation Dept.*

Program shall consist of renovation and replacement of obsolete play equipment and safety surface at various park sites. The need for more innovative play environments were recommended by the Urban Park Workgroup in their report to City Council. The PARD Playground Safety Program has identified numerous level 1 safety concerns needing to be addressed within the next bond program. Revised ADA requirements call for a higher level of accessibility within children's play environments. Also, PARD seeks to bring childrens' play environments into alignment with national best practices such as nature based play. These concepts were further reinforced through the recently completed through the Cities Connecting Children to Nature planning grant.

Highlighted Project Need: Zilker Metro Park – Nature-based Playscape: The play structure in Zilker Metro Park is identified as a high priority for replacement and represents a significant opportunity to develop an all-inclusive play environment that implements nature-based play elements. The PARD Playground Safety Program has identified numerous level 1 safety concerns needing to be addressed within the next bond program. Revised ADA requirements call for a higher level of accessibility within childrens' play environments. Also, PARD seeks to bring childrens' play environments into alignment with national best practices such as nature based play. This Bathhouse Zone of Zilker Metro Park is currently moving through a planning and design process which will also address the play area and its relationship to adjacent facilities. This playscape should be a play for all abilities and draw upon growing themes in nature-based play. This funding will provide for construction and will be leveraged with partnering entities.

Program – Aquatics*Parks and Recreation Dept.*

Program shall consist of renovation and replacement of obsolete aquatic facilities and equipment at various park sites. Improvements such as filtration and water re-circulation systems are necessary in order to keep pools compliant with certain health, safety and environmental regulations. PARD will soon complete the Aquatic Facilities Master Plan, which identifies and prioritizes opportunities for code upgrades, potential facility closures, and facility enhancements consistent with current national best practices. Water conservation ranks high as a motivating factor in aquatic replacement and renovation projects.

Highlighted Project Need: Colony Park Municipal Pool – Development: Design and construction of a new neighborhood pool in Colony District Park in response to recommendations set forth in the recently completed master plan for Colony Park by the Neighborhood Housing and Community Development Office. Colony District Park is identified as an underserved area of the City with limited availability of outdoor recreation opportunities. This project seeks to build upon initiatives put forth during the 2012 Bond program to master plan and implement phase 1 of the master plan recommendations, including the community's desire for a community pool facility.

Program – Cemeteries*Parks and Recreation Dept.*

Program shall consist of preservation and restoration of cultural assets, site and facility accessibility, operational infrastructure and general landscape improvements at the 5 city-owned and operated cemeteries. PARD recently completed in a master planning effort for the 5 city-owned and operated cemeteries (Oakwood, Oakwood Annex, Austin Memorial, Evergreen and Plummer). The strategic master plan provides the long-term prioritized inventory of needs and schedule of improvements to the cemetery. Work will include preservation and restoration of cultural assets, site and facility accessibility, operational infrastructure and general landscape improvements. This program seeks to arrest the ongoing deterioration of these unique historic and cultural assets while also enhancing the visitor experience at those sites still providing burial service. Past lack of funding for regular maintenance and renovation activities has resulted in failing infrastructure including obsolete buildings and site security

and safety concerns. PARD has recently taken ownership of daily operations of these facilities which has necessitated reinvestment in office, customer service facilities and infrastructure.

Program – Park Trails*Parks and Recreation Dept.*

Program budget to address the need for trail development and major renovation city-wide as trails constitute one of the most popular outdoor recreation amenities in the City. Work will include corridor clearing, trail construction, and supporting landscape improvements such as retaining walls, trailhead amenities, signage and general landscape enhancement. Trails on parkland provide both recreation as well as alternative transportation benefit. Public trails are seen as a growing mode of bicycle and pedestrian connectivity consistent with the priority programs promoted by the Imagine Austin Plan. Promoted by the City's Bicycle and Pedestrian Plan and the PARD Long Range Plan, trails rank the highest in user surveys as recreation activities sought on public land.

Program – Athletics*Parks and Recreation Dept.*

Program shall consist of renovation and replacement of deteriorated sport courts and athletic fields including perimeter fencing, lighting, surfacing, irrigation, turfgrass and other associated amenities and equipment. Initial phase of improvements under this program will likely include the replacement of non-compliant lighting equipment system-wide. Athletic facilities sustain heavy use and are in an advanced state of deterioration with limited capital reinvestment historically. PARD lacks adequate facilities to serve current and growing demand for programmable, revenue generating athletic facilities. PARD risks interruption of service if appropriate infrastructure re-investment is not made.

Program – Tennis*Parks and Recreation Dept.*

Program will support the on-going reinvestment into fee-based Public Tennis Facilities that consist of 8 or more tennis courts and supported by a Pro Shop Building. Scope shall include court re-surfacing as well as equipment and lighting replacement as required to prevent long-term deterioration or failure of assets. Tennis Facilities sustain heavy use throughout the year yet annual is often deferred due to general fund constraints. Continued deterioration may result in safety issues and facility closures with a resulting revenue loss.

Highlighted Project Need: Pharr Tennis Center – Court Renovations

This tennis facility is beyond life expectancy and courts will need new asphalt, re-surfacing of playing surface, and lighting equipment replacement with repairs to perimeter fencing as required. This tennis facility was originally built in 1975 with asphalt base surface having a life expectancy of 25 years. Courts are 15 years past life expectancy and are starting to cause safety issues. Court condition is causing lack of play, generating revenue shortfalls. Lighting is outdated and will need rewiring for energy savings.

Program – Golf*Parks and Recreation Dept.*

Program shall consist of pro-shop development and renovation, parking and access improvements, pathway improvements, greens and fairway renovation, irrigation and pump enhancements, and other site amenities that serve the golf community. Currently PARD owns and manages 6 municipal golf courses of various size, age and condition. These popular recreation facilities will continue to need capital reinvestment in order to serve current and future user demand. Interruption of service would

have an immediate impact on the Golf Enterprise as that funding model requires a constant stream of revenue.

Highlighted Project Need: Roy Kizer and Grey Rock – Greens Renovation: Renovation to the greens complexes at both Roy Kizer golf course and Grey Rock golf course. The greens complexes at both Roy Kizer golf course and Grey Rock golf course are over 20 years in age and are suffering from mutation of grasses and are more prone to disease and insect damage. The USGA recommends greens should be renovated every 20-25 years to maintain a high quality of health and playability. Continued deteriorating conditions will result in less play to the course and less revenue.

Program – ADA and Safety

Parks and Recreation Dept.

This program will seek to address the highest priority accessibility needs including access walks, doorways, restrooms and other public building spaces as well as access to outdoor destinations such as play, picnic and athletic facilities. Currently many of the PARD buildings and outdoor recreation facilities are out of compliance with state and federal accessibility guidelines. PARD recently completed an ADA Self Assessment and Transition Plan for all PARD facilities to determine standing with ADA of Federal Title II and Texas Accessibility Standards (TAS). PARD currently does not meet these standards as required by Federal Law.

Program – Parking Lots and Roadways

Parks and Recreation Dept.

Program will consist of addressing the highest priority sites in order to maintain safe, durable and accessible vehicular access for park patrons. Internal parking lot and roadway pavement at a number of the Department's heavily used facilities are in an advanced stage of deterioration. Park roads and parking areas sustain heavy use throughout the year yet annual maintenance has not been regularly provided due general fund shortfalls. Continued deterioration may result in safety concerns and runoff and erosion problems.

Highlighted Project Need: Zilker Clubhouse – Parking Lot and Roadway: Provide approximately 40,000 square feet of ADA compliant paved parking, including pedestrian linkages to building and terrace areas, proper signage and striping, as well as associated water quality measures to address parking lot runoff. The Zilker Clubhouse is a 1300 square foot rustic stone clubhouse with 2,000 square feet of patio. This historically significant, reservable facility is located high within the 351 acre Zilker Metro Park and provides a remarkable vantage point of the Zilker Preserve and the City of Austin skyline. This intensively-used, revenue-generating facility suffers from poor access and a heavily deteriorated and deeply rutted gravel and grass parking area. The current parking area at the Zilker Clubhouse is a poorly organized, heavily rutted gravel and grass area prone to dust, erosion and uneven footing for facility patrons. The rolling site topography adds to the pedestrian challenges. This can be compounded by poor visibility during evening functions, posing further tripping and falling risk to visitors. Adequate parking facilities are deemed necessary for this facility to serve current and future demand in a gracious and code compliant manner.

Program – Land Acquisition and Development for Parks*Parks and Recreation Dept.*

This program consists of acquisition and development of land for park and open space including property for destination parks, greenways, infill parks and preserves. Properties will be acquired according to the PARD Gap Analysis and long-term needs assessment. PARD must be proactive in the land acquisition program in order to meet the increasing demand for parks and open space, particularly in rapid growth areas. Likewise, PARD has identified the need to acquire infill parks as identified by the Urban Park Workgroup and as described in the Imagine Austin Plan.

Program – Master Plans*Parks and Recreation Dept.*

Program funding for master planning efforts system-wide. PARD is currently underway on a number of master plans but lacks a consistent funding source for these efforts. The current emphasis is to develop master plans for major destinations such as metropolitan and district parks, but the master planning effort does include key neighborhood and pocket parks. These master plans are seen as a necessary first step before proceeding with final design and construction. These activities do not currently have a dedicated funding source and are being addressed with specialized funding sources such as one-time capital or wrapped into larger capital projects. To make significant progress on developing master plans, PARD is requesting a program for master plans city-wide.

Program – Buildings New*Parks and Recreation Dept.*

Program consists of the development of new facilities or expansion of existing facilities to address the growing need for recreational programming in rapid growth areas. Types of facilities include recreation centers, senior activity centers, cultural facilities, administrative buildings, and operation and maintenance facilities. As part of the city-wide effort to consolidate and co-develop facilities, PARD is looking to draw upon industry standards by developing multi-generational Recreational Facilities to serve a wide range of community needs and also to co-locate and co-develop our operation and maintenance facilities with other City departments. This may include the strategic consolidation of existing facilities which may result in some facility closures to reduce O&M burden.

Program – Buildings Renovations*Parks and Recreation Dept.*

Program shall consist of physical improvements to existing buildings including roofs, HVAC, mechanical, electrical, plumbing, elevators, and interiors. Work will be prioritized and performed on buildings and facilities city-wide in conjunction with PARD Facilities Maintenance program. Currently PARD is developing a comprehensive asset management system which guides prioritization of the Buildings program. A large portion of PARD facilities are in an advanced state of deterioration and need significant renovations to extend useful life. This program seeks to address the backlog of deferred maintenance.

Neighborhood Partnering Program*Public Works Dept.*

The Neighborhood Partnering Program (NPP) allows citizens to partner with the City to propose small to medium scale projects on City-owned property to improve the places in which they live, work and play. As a "cost and effort-share" program, the Neighborhood Partnering Program is able to leverage outside resources and build positive working relationships with neighborhoods by providing public improvement projects initiated by the community opportunities for funding and implementation.

Strategic Capital Investments

Waller Creek District – Redevelopment

Parks and Recreation Dept.

City-match funding provided for comprehensive improvements to the Waller Creek Corridor from Waterloo Park to Lady Bird Lake in collaboration with the Waller Creek Conservancy. Funding under this proposal would provide the City match for a partnership with the Waller Creek Conservancy for the re-development of the Waller Creek District as outlined in the Joint Development Agreement. Design development for the Creek Mouth and Waterloo Park are proceeding with current funding under the 2012 GO Bond. Next installment of funding would provide for construction and design phases services for next series of phase plans.

Program – Historic Resource Preservation

Parks and Recreation Dept.

PARD is the steward of a wide range of historic resources throughout the municipal park system. Historic resources range from entire parks to park infrastructure and may be formerly designated on the local, state and national level. Cultural resource management and preservation planning is a critical component of a parks and recreation department and is required in order to meet national standards of best practice. This is supported in the Commission for Accreditation of Park and Recreation Agencies (CAPRA) Accreditation process. The need for this program is also consistent with Imagine Austin, the City of Austin's Comprehensive Plan.

Highlighted Project Need: Norwood House and Grounds – Reconstruction: The reconstruction of the Historic Norwood House and grounds is a project being undertaken by the Norwood Foundation. PARD will leverage capital funding to address infrastructure, site work and support structures in this phased project. The existing Norwood House has fallen into an advanced state of deterioration and is in critical need of capital reinvestment to save the historic structures. A recently completed master plan for this area serves as the guiding document to invest capital funding with a recent phase completed by the Norwood Foundation. This project will seek to build upon this momentum and implement subsequent phases of construction to the main Norwood House structure and also address support structures as well as necessary grounds improvements.

Program – AISD School Infill Parks

Parks and Recreation Dept.

Design and construct low maintenance pocket parks with playgrounds on school district property or properties jointly owned by COA and AISD in park deficient areas that are open to the public during the school day. School properties cannot be used by the public during the school day. School infill parks will provide access to parks for younger children and families that have no other nearby access to parks during the school day. By partnering with school districts this initiative leverages public land and allows us to develop a park space without having to acquire land. This initiative also helps achieve the City's overall goal of having parks within a ¼ or ½ mile of all Austin children and families.

Other Strategic Project Need: Seaholm Intake Facility – Adaptive Re-use: Adaptive re-use of the Seaholm Intake Facility in a manner that draws upon conditions assessment and feasibility study, concepts developed during the Design Ideas Competition, and ultimately through an RFQS for redevelopment. Funding under this proposal would provide the City match for a public-

private partnership toward the re-purposing of this significant structure on parkland in the Seaholm District. PARD is currently working with Austin Parks Foundation, The Trail Foundation, and other City Departments to develop an RFP for the redevelopment of the Seaholm Intake Facility.

TYPICAL CIP FUNDING SOURCES

The predominant funding source for Park Infrastructure is general obligation bond programs. Other funding sources include grants, mitigation, Parkland Dedication, cash, and various other revenues. PARD is actively engaged in public-private partnership opportunities to leverage capital funding with private funding for some high-profile community park projects, such as Republic Square, Waller Creek District and Barton Springs Pool. PARD is also constantly looking for opportunities to leverage existing capital funding through state and local grant programs, typically on a one-to-one match. As an example, PARD received funding from the Texas Parks and Wildlife Department's Urban Outdoor Recreation Grant Program for park improvements at Colony District Park and Waterloo Neighborhood Park.

This section identifies capital improvement needs related to public art sponsored and owned by the City and the associated restoration and maintenance of those works.

DEPARTMENT ROLES

The ***Economic Development Department*** manages the City's Art in Public Places Program, including facilitating the artist selection process, managing the contracts with professional visual artists for services related to the design, fabrication and installation of public art, and is responsible for repair of the city's aging public art collection.

FUTURE CAPITAL NEEDS

Below is a list of identified other future needs with a description of each provided on the following pages.

Ongoing Capital Programs

Ongoing capital program needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. This can include rehabilitation or replacement of existing infrastructure as well as expansion of infrastructure to meet growth demands. The City needs flexibility in implementing ongoing capital programs in order to adapt to changing circumstances or address urgent needs. Capital needs will be updated annually for planning, coordination, and public transparency purposes.

Dept.	Ongoing Program or Highlighted Project Need	Title
EDD	Ongoing Program	Art in Public Places Program
EDD	Ongoing Program	Art Restoration

DESCRIPTIONS

Ongoing Capital Programs

Art in Public Places Program

Economic Development Dept.

Planning for the ongoing Art in Public Places (AIPP) program including but not limited to new infrastructure related to growth. The AIPP program receives a 2% contribution from eligible Capital Improvement Projects (CIP) to fund the selection, design, fabrication and installation of public art. Any additional funding could be applied to art projects outside of CIP requirements. AIPP staff could make use of public/private partnerships, donations and interdepartmental agreements to target areas where growth is occurring, as well as target areas of the city where art is lacking.

Art Restoration*Economic Development Dept.*

Improvements and repairs of Art in Public Places (AIPP) artworks. The Art in Public Places Program is charged with long-term conservation and repair of cultural assets acquired through the City's public art program, donations, and inherited artworks.

TYPICAL CIP FUNDING SOURCES

The Art in Public Places Program receives a 2% contribution from eligible CIP projects per City Code Chapter 7-2, the Art in Public Places Ordinance, to fund new art installations; however, bond law restricts reserving any portion of that 2% to be put toward future artwork repairs. Art restoration of the City-owned public art is funded by a one-time allocation that is currently being utilized for immediate and emergency needs, but there is no long-term, sustainable funding source identified to address remaining and future collection repairs.

Capital improvements may include the creation of new and/or improvements to existing drainage infrastructure, including – but not limited to – studies, design, new construction, realignment of existing infrastructure, replacement of existing infrastructure, deepening or widening of existing infrastructure, or closing existing infrastructure.

DEPARTMENT ROLES

The ***Watershed Protection Department (WPD)*** mission is to protect lives, property, and the environment of our community by reducing the impact of flooding erosion and water pollution. WPD is responsible for the City's stormwater management system, including the city-owned storm drain system, stormwater management ponds, and the creek drainage system.

The ***Public Works Department*** is responsible for full-depth street reconstruction and rehabilitation of arterial, collector, and residential streets with 'poor' or 'failed' ratings throughout the City of Austin. The need for drainage improvements is evaluated and the improvements are included as part of the street reconstruction or substandard street project if needed.

The ***Economic Development Department (EDD)*** facilitates the redevelopment of targeted areas of the city. Examples include the Mueller Redevelopment Area, Seaholm Redevelopment, and Green Water Treatment Plant Redevelopment. Because green infrastructure can be a key component of place-making and redevelopment, improved access to creeks and other stormwater-related infrastructure are sometimes identified by EDD as strategic capital investment needs.

Drainage solutions often affect parkland; in these cases, the ***Parks and Recreation Department (PARC)*** plays a role in coordination with WPD on stormwater project development.

FUTURE CAPITAL NEEDS

Below is a list of identified future stormwater management infrastructure needs with a description of each provided on the following pages. Enterprise Departments, like the Watershed Protection Department, are revenue generating and adjust capital program roll-out based on available revenue. Although a dedicated funding source is identified for these capital programs, projected capital project needs typically exceed funding availability, as is common with municipalities across the U.S.

The Watershed Protection Department has identified stormwater management Top Priority Problem Areas that drive the identification and prioritization of future capital improvements. Each of the three Watershed Protection Department missions (Flood, Erosion, and Water Quality) has developed problem score systems to quantify and prioritize problem areas. The Flood mission is split into Creek Flooding Mitigation and Localized Drainage ongoing programs. Problem scores assign a numeric value to watershed problems, such as individual erosion sites or structures in floodplains. These problem scores can be aggregated into larger units, such as stream reaches, project groupings, or even entire watersheds, to enable comparisons across geographic areas.

As part of the yearly capital budget planning process, the top ranked problem areas, ordered by problem score for each mission, are collected to identify potential solutions. The review of these areas results in the identification of capital projects that are included in the five-year CIP appropriation plan that is provided to the City's Budget Office as part of the CIP appropriation process.

This year's Rolling Needs Assessment submittal includes projects identified as solutions to top ranked problem areas that have a significant unfunded need beyond the funding capacity of the five-year CIP appropriation plan.

Ongoing Capital Programs

Ongoing capital program needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. This can include rehabilitation or replacement of existing infrastructure as well as expansion of infrastructure to meet growth demands.

Highlighted future project needs within the ongoing capital programs are also provided below to illustrate the types of projects that are typically undertaken within that capital program, or to identify significant future planned projects on the horizon. These are provided as a snapshot of planned future projects at this point in time, and are not guaranteed to be implemented in the future. The City needs flexibility in implementing ongoing capital programs in order to adapt to changing circumstances or address urgent needs. Capital needs will be updated annually for planning, coordination, and public transparency purposes.

Dept.	Ongoing Program or Highlighted Project Need	Title
WPD	Ongoing Program	Erosion Control – Stream Restoration
	Program Subcategory	Erosion Control Long-Term Infrastructure Maintenance and Asset Management
WPD	Ongoing Program	Flood Control – Creek Flooding Mitigation
	Program Subcategory	Creek Flooding Mitigation Creek Crossings
	Highlighted Need	Walnut Creek – McNeil Dr Low Water Crossing Improvements
	Highlighted Need	East Bouldin Creek – West Monroe St. Low Water Crossing Improvements
	Highlighted Need	Williamson Creek - Nuckols Crossing Low Water Crossing Improvements
	Program Subcategory	Creek Flooding Mitigation Structures
	Highlighted Need	Onion Creek – Pinehurst Drive and Wild Dunes Area Flood Hazard Mitigation
	Highlighted Need	Carson Creek - Flood Hazard Mitigation

	Highlighted Need	Shoal Creek - Lower Shoal Creek Flood Hazard Mitigation
WPD	Ongoing Program	Flood Control - Localized Drainage
	Highlighted Need	Waller Creek – Guadalupe St., W. 35 th 37 th St. Storm Drain Improvements
	Highlighted Need	West Bouldin Creek – Del Curto Storm Drain Improvements
	Highlighted Need	Barton Creek - Oak Park Oak Acres Storm Drain Improvements
	Highlighted Need	Shoal Creek - Nueces St Storm Drain Improvements
	Highlighted Need	Walnut Creek - North Acres Storm Drain Improvements
	Highlighted Need	Walnut Creek - Whispering Valley Dr and West Cow Path Flooding Mitigation
	Highlighted Need	Taylor Slough South - Warren St Storm Drain Improvements
	Highlighted Need	Williamson Creek - Brassiewood Dr Storm Drain Improvements
	Highlighted Need	East Bouldin Creek – Annie St. Storm Drainage Improvements
	Highlighted Need	Walnut Creek - January Dr Storm Drain Improvements
	Highlighted Need	Johnson Creek - Oakmont Blvd. Storm Drain Improvements
	Highlighted Need	Lady Bird Lake - Briar Hill Dr Storm Drain Improvements
	Highlighted Need	Little Walnut Creek - Jamestown Dr Storm Drain Improvements
	Highlighted Need	Walnut Creek - Oak Knoll Drainage Improvements
	Program Subcategory	Annexation Area Drainage Improvements
	Program Subcategory	Storm Drainage Infrastructure Asset Maintenance – Capacity
	Program Subcategory	Storm Drainage Infrastructure Asset Maintenance – Condition
WPD	Ongoing Program	Water Quality Remediation and Restoration
	Program Subcategory	Open Space/Watershed Management Land Acquisition – Unfunded Needs

Strategic Capital Investments

Strategic investments represent innovative approaches to better meet departments' service to the community, respond to specific City Council-identified capital investment priorities, or to advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City department. Investments in stormwater infrastructure will be an important part of implementing the Compact and Connected, Household Affordability, Green Infrastructure, and Sustainable Water priority programs of Imagine Austin.

Dept.	Strategic Program or Strategic Project Need	Title
WPD	Strategic Program	Imagine Austin Centers & Corridors Drainage Improvements
WPD	Strategic Program	Stormwater Citywide Priorities
WPD	Strategic Program	Stream Restoration – CIP Integration
PARD, WPD	Strategic Project Need	Country Club West - Roy G. Guerrero Park Channel Stabilization
WPD	Strategic Program	Transit Oriented Development
	Highlighted Need	Boggy Creek - MLK TOD Storm Drain System Improvements
	Highlighted Need	Lady Bird Lake - Plaza/Salttillo TOD Drainage Improvements
	Highlighted Need	Shoal, Walnut, and Little Walnut Creeks - North Burnet Gateway Drainage Improvements
	Highlighted Need	Shoal and Waller Creek - Lamar/Justin TOD Drainage Improvements
	Highlighted Need	Waller Creek - Downtown TOD Drainage Improvements
	Highlighted Need	Country Club West Creek – Pleasant Valley / Elmont Stormwater Conveyance Improvements
WPD	Strategic Program	Waller Creek Redevelopment
	Strategic Project Need	Waller Creek District – Creek and Trail Improvements
Other Strategic Project Needs:		
WPD	Strategic Project Need	Shoal Creek - Brentwood Drainage Improvements
WPD, PARD, AWU	Highlighted Need	Shoal Creek – Northwest Park Dam Maintenance/Modernization
EDD	Strategic Project Need	Shoal Creek Improvements (<i>note: also included in Area Plans section</i>)

DESCRIPTIONS

Ongoing Capital Programs

Erosion Control – Stream Restoration

Watershed Protection Dept.

The Stream Restoration Program designs and builds engineered projects that protect property from the threats of streambank erosion while adding beneficial recreational and environmental elements to degraded stream systems.

Program Subcategory: Erosion Control Long-Term Infrastructure Maintenance and Asset Management: Program to fund design or construction resources to maintain aging or damaged stabilized channel infrastructure. The City of Austin has miles of stabilized channel to maintain in perpetuity. This infrastructure has largely been built over the last thirty years. As it ages and receives damage from storm events, the department does not have the design or construction resources to maintain this infrastructure while also providing the same level of service to address new priority projects. Planning for aging infrastructure prevents catastrophic failures that can result more cost in property damage and damage to public resources.

Flood Control – Creek Flooding Mitigation

Watershed Protection Dept

Large scale flood control improvements to mitigate flood hazards for houses, commercial buildings and roadway crossings due to out of bank creek-overflows during extreme storm events. Example project types include regional detention basins, flood barrier/levies, bridge/culvert flow capacity increases and stream channel enlargement.

Program Subcategory: Creek Flooding Mitigation Creek Crossings: Flood control improvements to mitigate flood hazards for roadway crossings due to out of bank creek-overflows during extreme storm events. CIP Unfunded Needs represent Priority Problem Areas not currently fully-funded in the 5-year plan. Program to reduce flood risk at roadway crossings to improve public safety.

Highlighted Project Needs:

- Walnut Creek – McNeil Dr Low Water Crossing Improvements: The McNeil Drive crossing currently overtops in storm events as frequent as a 2-YR storm and serves as the main point of access from MoPac to an entire neighborhood. The roadway overtops frequently and is closed and monitored by WPD staff.
- East Bouldin Creek – West Monroe St. Low Water Crossing Improvements: The West Monroe bridge over E Bouldin Creek currently floods in the 2 year storm event and may contribute to flooding of adjacent properties. The project will improve the crossing, possibly include a property buyout, to reduce flood risks.
- Williamson Creek – Nuckols Crossing Low Water Crossing Improvements: The Nuckols Crossing at Williamson Creek currently overtops in storm events as frequent as a 2-YR storm. This planned project will involve upgrade of the creek crossing. This project will upgrade the roadway crossing to improve public safety and reduce road closures. This crossing is ranked number 12 in the Top 20 problem list for undersized roadway crossings in the FY16 creek flood master plan.

Program Subcategory: Creek Flooding Mitigation Structures: Large scale flood control improvements to mitigate flood hazards for buildings due to out of bank creek-overflows during extreme storm events. CIP Unfunded Needs represent Priority Problem Areas not currently fully-funded in the 5-year plan. Program to reduce flood risk for structures, including residential and commercial buildings, and other resources.

Highlighted Project Needs:

- Onion Creek – Pinehurst Drive and Wild Dunes Area Flood Hazard Mitigation: An estimated 164 residential structures may flood during a 100-yr storm event in the Pinehurst area. A preliminary assessment and analysis are planned to further evaluate the risk and

alternatives to reducing the risk of flooding in the area. This project will remove homes from flood risk and improve safety of lives and property. The Pinehurst area of the lower Onion Creek watershed was annexed by the City in 2003. This residential area now ranks 5 out of the top twenty worst flooding problem areas in the City when the master plan scores were updated in 2015.

- Carson Creek Flood Hazard Mitigation: Explore options to reduce the extent of the floodplain and flooding from Carson Creek. There are three creek flood hazard mitigation priority areas in the identified study area.
- Shoal Creek - Lower Shoal Creek Flood Hazard Mitigation: An updated feasibility assessment will be conducted to evaluate flood hazard mitigation solutions to address flooding along the main stem of Shoal Creek from 15th St to Lady Bird Lake.

Flood Control - Localized Drainage

Watershed Protection Dept.

Drainage projects which address flow capacity needs for the storm drain system. CIP Unfunded Needs represent Priority Problem Areas not currently fully-funded in the 5-year plan. Purpose is to alleviate local flooding in high priority problem areas.

Highlighted Project Needs:

- Waller Creek - Guadalupe St., W. 35-37th St. Storm Drain Improvements: Construct storm drain system improvements for the area near West 37th Street at Guadalupe Street. The project is intended to alleviate the flooding of buildings and yards through an upgraded storm drainage system. Project would alleviate local flooding in a high priority problem area to address 12 locations of reported house flooding and 7 locations of reported yard flooding.
- West Bouldin Creek - Del Curto Storm Drain Improvements: Construct storm drain system improvements for the area near Del Curto Street. Very high priority identified in WPD's master plan. Project will mitigate the localized flooding of several roadways and seven building and 11 yard complaints. The area is subject to redevelopment. This project will facilitate public-private partnerships and reduce cost to WPD.
- Barton Creek – Oak Park Oak Acres Storm Drain Improvements: Preliminary engineering to further study causes of and determine possible solutions to flooding problems in the Oak Park and Oak Acres subdivisions north of 290 in the Barton Creek Watershed. Residents have formally requested service from the City to address 49 locations of reported house flooding, 7 locations of reported yard flooding, and 6 locations of reported street flooding.
- Shoal Creek – Nueces St Storm Drain Improvements: The project is intended to alleviate the flooding of buildings, yards, and streets through an upgraded storm drainage system. Residents have formally requested service from the City to address 25 locations of reported house flooding, 11 locations of reported yard flooding, and 11 locations of reported street flooding.
- Walnut Creek – North Acres Storm Drain Improvements: The project is intended to alleviate the flooding of buildings, yards, and streets through an upgraded storm drainage system that includes the construction of approximately 6,446 linear feet of upgraded storm drain pipe and numerous new inlets. Residents have formally requested service from the City to address 25 locations of reported house flooding, 10 locations of reported yard flooding, and 7 location of reported street flooding.
- Walnut Creek – Whispering Valley Dr and West Cow Path Flooding Mitigation: This multi-objective project includes improvements for the creek crossing and storm drain installation

- for the area near Whispering Valley Drive and West Cow Path. Very high priority identified in WPD's master plan. The first phase of the project, creek crossing upgrade at UPRR crossing, will remove 7 houses from 100yr floodplain and 5 houses from 25yr floodplain. The second phase of the project will mitigate localized flooding of 13 building and yard complaints.
- Taylor Slough South – Warren St Storm Drain Improvements: The project is intended to alleviate the flooding of buildings, yards, and streets through an upgraded storm drainage system that includes the construction of approximately 2440 linear feet of upgraded storm drain pipe and numerous new inlets. Residents have formally requested service from the City to address 15 locations of reported house flooding, 1 location of reported yard flooding, and 2 locations of reported street flooding.
 - Williamson Creek – Brassiewood Dr Storm Drain Improvements: The project is intended to alleviate the flooding of buildings, yards, and streets through an upgraded storm drainage system that includes the construction of upgraded storm drain pipe and new storm drain inlets. Residents have formally requested service from the City to address 14 locations of reported house flooding, 3 locations of reported yard flooding and 3 locations of reported street flooding.
 - East Bouldin Creek - Annie St. Storm Drain Improvements: The purpose of this project is to mitigate flooding impacts associated with a failing storm system. The contributing project area is primarily residential generally located in the East Bouldin watershed. To reduce flooding of properties.
 - Walnut Creek – January Dr Storm Drain Improvements: The project is intended to alleviate the flooding of buildings, yards, and streets through an upgraded storm drainage system that includes the construction of approximately 2,500 linear feet of upgraded storm drain pipe and numerous new inlets. Residents have formally requested service from the City to address 13 locations of reported house flooding, 0 locations of reported yard flooding, and 1 location of reported street flooding.
 - Johnson Creek – Oakmont Blvd. Storm Drain Improvements: Construct storm drain system improvements for the area near Oakmont Boulevard. Benefit - mitigate flooding for six houses/yards. Very high priority identified in WPD's master plan. Residents have formally requested service from the City to address 11 locations of reported house flooding, 6 locations of reported yard flooding, and 3 locations of reported street flooding.
 - Lady Bird Lake – Briar Hill Dr Storm Drain Improvements: The project is intended to alleviate the flooding of buildings, yards, and streets through an upgraded storm drainage system that includes the construction of approximately 8,776 linear feet of upgraded storm drain pipes and inlets. Residents have formally requested service from the City to address 11 locations of reported house flooding, 3 locations of reported yard flooding, and 5 locations of reported street flooding.
 - Little Walnut Creek – Jamestown Dr Storm Drain Improvements: The project is intended to alleviate the flooding of buildings and yards through an upgraded storm drainage system that includes the construction of approximately 6,400 linear feet of upgraded storm drain pipe and numerous new storm drain inlets. Residents have formally requested service from the City to address 10 locations of reported house flooding and 11 locations of reported yard flooding.
 - Walnut Creek – Oak Knoll Drainage Improvements: This project would upgrade drainage infrastructure in the Oak Knoll area, which has experienced multiple flooding events to several homes and two roadways. In particular are a cluster of homes between Woodcrest

& Research Blvd. along a low area. Project will mitigate localized flooding of two roadways and ten building and yard complaints.

Program Subcategories:

- Annexation Area Drainage Improvements
This is a parent project to cost participate in preliminary engineering activities with other utilities for recently annexed areas. Enables WPD to fund additional storm system design in annexed areas where AWU is required to implement water and wastewater improvements; WPD benefits by cost participating with AWU to have one consultant design the storm system, water and wastewater lines.
- Storm Drain Infrastructure Asset Maintenance Unfunded Needs – Capacity
Program to upgrade storm drain systems identified to convey less than the 2-year storm event outside of the Imagine Austin Centers & Corridors, TODs, & Top 20 Local Flood Problem Areas. Upgrades existing city assets to achieve an acceptable level of service by meeting Drainage Criteria Manual standards. This program would fund upgrades to infrastructure less than 80 years old that has been identified to contain less than the 2-year storm event (storm drain infrastructure greater than 80 years old captured in Storm Drain Infrastructure Asset Maintenance Unfunded Needs - Condition). Replacement of this infrastructure within Imagine Austin Centers & Corridors includes additional water quality scope to meet the goals of Imagine Austin, and is captured separately in Imagine Austin Centers & Corridors Drainage Improvements.
- Storm Drain Infrastructure Asset Maintenance Unfunded Needs – Condition
Program to fund replacement of existing, aging storm drain infrastructure past its lifespan outside of the Imagine Austin Centers & Corridors, TODs, & Top 20 Local Flood Problem Areas. Storm drain lifespan is estimated to reach critical risk of failure at 80 years. This program would fund essential replacement and potential upgrades to storm drain infrastructure installed before 1936. Funds needed maintenance and prevents structural failure of WPD infrastructure assets. Replacement of this infrastructure within Imagine Austin Centers & Corridors includes additional water quality scope to meet the goals of Imagine Austin, and is captured separately in Imagine Austin Centers & Corridors Drainage Improvements.

Water Quality Remediation and Restoration

Watershed Protection Dept.

This program addresses environmental problems throughout Austin watersheds and are prioritized based on problem severity as determined by field monitoring. Projects utilize innovative methods to stabilize banks and improve stormwater quality.

Program Subcategory: Open Space/Watershed Management Land Acquisition: Acquire properties or conservation easements in the Barton Springs Zone to protect water quality and water quantity in the Edwards Aquifer and at Barton Springs for maintenance of recreational quality and endangered species habitat. Protection of water quality and water quantity in the Barton Springs segment of the Edwards Aquifer has been a high priority for the citizens of Austin as indicated by passage of the Save Our Springs Ordinance and approval of four previous Open Space Bonds starting in 1998. Maintaining or enhancing the quantity of recharge to the Edwards Aquifer is a departmental water quality objective. Funds from the previous bonds are exhausted. Purchase of properties or conservation easements on properties are an optimal solution to protection of water quality and quantity because 1) 2/3 of the area that contributes water to Barton Springs is outside the jurisdiction of the City of Austin (COA), 2) allowable development under county or other city

jurisdiction will contribute to a decline in water quality and quantity in the aquifer because of higher impervious cover and less efficient water quality controls, 3) COA ownership of the land allows for management of the land to improve water quality and quantity of recharge into the aquifer, and 4) it allows COA to open and maintain recharge features to improve recharge efficiency. Specific authorization to purchase property or conservation easements to protect water quality and quantity have been approved by Council on numerous occasions, justifying this method. Purchase of open space is ongoing and funding this effort will allow continuation of this highly successful project.

Strategic Capital Investments

Imagine Austin Centers & Corridors Drainage Improvements

Watershed Protection Dept.

Program to fund essential replacement and upgrades to stormwater infrastructure in the Imagine Austin Centers & Corridors. Includes replacement of storm drains and installation of water quality controls, including green stormwater infrastructure. Many of the existing stormdrain systems in the Imagine Austin Centers and Corridors are undersized for current stormwater conveyance standards. Upgrades to this infrastructure in these areas warrant integration of water quality scope to meet the goals of Imagine Austin. WPD does not currently have a funding source to fund these essential improvements outside of mission-identified priority problem areas.

Stormwater Citywide Priorities

Watershed Protection Dept.

This project provides a funding source for private public partnerships. This is a parent fund for stormwater City-Wide Priority projects involving stormwater conveyance infrastructure needs. The primary purpose for this fund is cost participation with developers.

Stream Restoration – CIP Integration

Watershed Protection Dept.

Program to implement large-scale, multi-departmental, time-critical, catastrophic, and/or multi-mission projects with stream restoration and stabilization benefits. The stream restoration program is currently able to fund restoration and stabilization of the routine erosion through the capital budget; however, lacks the flexible funding to implement large-scale, coordinated projects. Integrated projects meet the goals of Imagine Austin by protecting city assets, improving connectivity, enhancing neighborhoods, and increasing efficiency in CIP project implementation.

Strategic Project Need: Country Club West - Roy G. Guerrero Park Channel Stabilization

Channel stabilization project to halt erosion in a drainage channel in Roy G. Guerrero Park behind Krieg Fields to restore stability to parkland, support a pedestrian bridge, and protect upstream residential properties and City infrastructure. Failure to complete this project will result in certain damage to parkland, park amenities, upstream apartment buildings, Wickersham/Riverside bridges, and utilities.

Transit Oriented Development

Watershed Protection Dept.

The Watershed Protection Department has committed to either provide strategic improvements or to identify improvements needed to address inadequate stormwater conveyance in or downstream of the TOD Districts.

Strategic Project Needs:

- **Boggy Creek – MLK TOD Storm Drain System Improvements:** The purpose of this project is to improve storm water conveyance within the boundaries of the MLK Transit Oriented

- Development (TOD) to facilitate future development \ re-development of the MLK TOD. The stormdrain system is undersized for current stormwater conveyance standards. Priority is independent of local flood hazard mitigation and is determined by available funding.
- Lady Bird Lake – Plaza/Salttillo TOD Drainage Improvements: The purpose of this project is to improve storm water conveyance within the boundaries of the Plaza/Salttillo Transit Oriented Development (TOD) to facilitate future development \ re-development of the Plaza/Salttillo TOD. The stormdrain system is undersized for current stormwater conveyance standards. Priority is independent of local flood hazard mitigation and is determined by available funding.
 - Shoal, Walnut, and Little Walnut Creeks – North Burnet Gateway Drainage Improvements: The purpose of this project is to improve storm water conveyance within the boundaries of the North Burnet / Gateway Transit Oriented Development (TOD) to facilitate future development / re-development of the North Burnet / Gateway TOD. The stormdrain system is undersized for current stormwater conveyance standards. Priority is independent of local flood hazard mitigation and is determined by available funding.
 - Shoal and Waller Creeks – Lamar/Justin TOD Drainage Improvements: The purpose of this project is to improve storm water conveyance within the boundaries of the Lamar/Justin Transit Oriented Development (TOD) to facilitate future development/re-development of the L/J TOD. The storm drain system is undersized for current stormwater conveyance standards. Priority is independent of local flood hazard mitigation and is determined by available funding.
 - Waller Creek - Downtown TOD Drainage Improvements: The purpose of this project is to improve storm water conveyance within the boundaries of the Downtown station development concurrent with Capital Metro project improvements (planned for FY2018). Capital Metro plans to improve their Downtown Station which will necessitate storm drain improvements on their schedule (currently FY 2018). The remainder of the improvements will be needed as funding becomes available. The storm drain system is undersized for current stormwater conveyance standards. Capital Metro project provides opportune time to upgrade infrastructure to meet service demands.
 - Country Club West Creek - Pleasant Valley/Elmont Stormwater Conveyance Improvements: Improve Stormwater Conveyance along Pleasant Valley Road in and near the intersection of Elmont Drive. This intersection has known flooding problems dating back to 1988. The main project benefit is the elimination of street flooding at the intersection of Pleasant Valley/Elmont. Additional benefits are meeting neighborhood plan goals and supporting the East Riverside Corridor Plan.

Waller Creek Redevelopment

Watershed Protection Dept

Projects related to the Waller Creek master plan and corridor redevelopment made possible by the Waller Creek Tunnel. Schedules are to be coordinated collaboratively with the Waller Creek Conservancy.

Strategic Project Need: Waller Creek District - Creek and Trail Improvements

City-match funding provided for comprehensive improvements to the Waller Creek Corridor from Waterloo Park to Lady Bird Lake in collaboration with the Waller Creek Conservancy. WPD - Erosion threatens numerous resources in this reach including threatens several structures, 16 private properties, hike and bike trail, bridge and utilities. The project benefits include providing

a stable, ecologically sustainable creek system and connectivity along the creek and to the Waller Creek District.

Other Strategic Project Needs:

- Shoal Creek - Brentwood Drainage Improvements *Watershed Protection Dept.*
 Comprehensive integrated project to reduce flooding, stabilize and restore streams, and enhance water quality in the Brentwood neighborhood. Project aims to incorporate neighborhood connectivity and other citywide priorities. High priority problem area for flooding and erosion. A comprehensive solution is needed to address both. Large neighborhood connectivity need and requires integration with multiple city departments. The drainage system in the Brentwood neighborhood containing Grover and Hancock Tributaries to Shoal Creek is undersized for conveying floodwaters and is degrading from erosion. Upgrading infrastructure and restoring the stream could be incorporated into a larger scale project that expands the greenspace around the tributaries to incorporate neighborhood connectivity, improved stream water quality, and increased park-type land area. Watershed is initiating a feasibility study that evaluates all the possible solutions. It is likely that a comprehensive solution will be too expensive to fund in a reasonable time frame.
- Shoal Creek – Northwest Park Dam Maintenance/Modernization
 Dam safety inspection revealed significant heavy maintenance needs and settlement/movement issues around the baseball field facilities. This is a multi-phase project to be coordinated with the Parks and Recreation Department and Austin Water. The facility is a Texas state-regulated dam and the structure is being compromised with ongoing settlement and movement issues. Project will address serious settlement and non-routine maintenance and repair issues.
- Shoal Creek Improvements *Economic Development Dept.*
 Improvements along lower Shoal Creek, within the Seaholm Development District. Improvements along lower Shoal Creek are needed to create a green space asset and support redevelopment of the district.

TYPICAL CIP FUNDING SOURCES

WPD utilizes a combination of general obligation bonds, drainage fees, payment-in-lieu programs and Certificates of Obligation from tax increment financing to fund its CIP.

The Drainage Utility Fund (DUF) is funded by commercial and residential drainage fees. The DUF supports a variety of WPD activities, including flood hazard mitigation, infrastructure and waterway maintenance, stream restoration and water quality protection.

The Urban Watersheds Ordinance (UWO) payment-in-lieu program provides additional funds for Watershed Protection's CIP projects in the form of the Urban Structural Control Fund. The UWO amendments require water quality control structures to treat stormwater runoff. The ordinance includes other requirements that allow for payment-in-lieu in Urban Watersheds instead of building water quality control structures when approved by the Director of the Watershed Protection Department.

The Regional Stormwater Management Program (RSMP) is a payment-in-lieu program administered by the Watershed Protection Department, which allows development to pay into a fund to build regional facilities instead of providing site-by-site flood detention. This program provides for the planning, design and construction of regional drainage improvements to prevent flooding caused by increased runoff from developments, using payments from the owners of those developments.

DRAFT

Capital improvements may include new and/or improvements to existing water, wastewater, and reclaimed water infrastructure, including, but not limited to, studies, design, new construction, realignment of existing infrastructure, replacement of existing infrastructure, deepening or widening of existing infrastructure, or abandoning existing infrastructure.

DEPARTMENT ROLES

Austin Water provides safe, reliable, and high quality water services to a population of approximately 1,000,000 inside and outside the city limits as well as about twenty-one wholesale customers, including the communities of Rollingwood, Sunset Valley, Manor, Westlake Hills, two water control and improvement districts, five municipal utility districts, and several water supply corporations and private utilities. Austin Water is responsible for three utility systems: Water, Wastewater, and Reclaimed. Austin Water draws water from the Colorado River into three water treatment plants and then drinking water is pumped from the plants into Austin's water distribution system. Austin Water also operates a collection system that brings wastewater to two major treatment plants where it is treated before either being returned to the Colorado River or reclaimed for irrigation, cooling, or industrial uses. A bio-solids facility at Hornsby Bend receives sludge generated by the treatment processes at Austin Water's wastewater plants and uses it to create compost. Austin Water also promotes water conservation through educational, enforcement and incentive programs as well as manages the City's wildlands and Balcones Canyonlands Preserve (BCP), protecting water quality and conserving habitat for endangered species.

FUTURE CAPITAL NEEDS

Austin Water is an enterprise department that has a dedicated funding source for its Capital Improvements Program (CIP) through rate revenues. Each year, Austin Water prepares a prediction of future revenues, and then Austin Water CIP project selection and prioritization for funding allocation involves a bottom-up approach of reviewing existing CIP priorities and identifying critical needs. The Austin Water CIP team analyzes previous CIP spending compared to the approved budget in an effort to improve project cost and schedule estimates. They then meet with Austin Water personnel responsible for managing, operating, planning, financing, and delivering CIP projects to develop priority lists by infrastructure category. Information from asset management condition assessments and from hands-on operations personnel provide an essential basis for the development of these CIP priority lists. A CIP coordinating committee composed of representative chairpersons from different Austin Water divisions evaluates projects based on the identified priorities. Once these evaluations are complete, Austin Water's director and executive team meet regularly with the CIP coordinating committee and the CIP management team to finalize the projects to be included in the City's CIP Five-Year Plan and Austin Water's internal financial planning for a 10-year horizon.

Through this process, Austin Water carefully evaluates each CIP project to determine the impact of any project reprioritizations. Austin Water's CIP planning is designed to balance investments in rehabilitation

and/or replacement projects to reduce risks associated with aging infrastructure with investments in major infrastructure system improvement projects to support growth and development.

Because of the size and complexity of Austin Water's CIP program, there are always projects that need to be executed but cannot be undertaken as quickly as Austin Water would prefer. Austin Water's program is designed to address the highest priorities first. When unforeseen conditions arise requiring spending on a project that was not in the current year's CIP plan, another project or projects may have to be delayed.

Below is a list of identified future water, wastewater and reclaimed water infrastructure ongoing capital program needs with a description of each provided on the following pages.

Ongoing Capital Programs

Ongoing capital program needs are identified by departments as necessary to continue maintaining acceptable condition or service levels for the City's basic infrastructure responsibilities. This can include rehabilitation or replacement of existing infrastructure as well as expansion of infrastructure to meet growth demands.

Highlighted future project needs within the ongoing capital programs are also provided below to illustrate the types of projects that are typically undertaken within that capital program, or to identify significant future planned projects on the horizon. These are provided as a snapshot of planned future projects at this point in time, and are not guaranteed to be implemented in the future. The City needs flexibility in implementing ongoing capital programs in order to adapt to changing circumstances or address urgent needs. Capital needs will be updated annually for planning, coordination, and public transparency purposes.

Dept.	Ongoing Program or Highlighted Project Need	Title
Austin Water	Ongoing Program	Annexed Areas
Austin Water	Ongoing Program	Lift Stations
Austin Water	Ongoing Program	Pump Stations
Austin Water	Ongoing Program	Rehabilitation
Austin Water	Ongoing Program	Relocation
Austin Water	Ongoing Program	Reservoir
	Highlighted Need	North Austin Reservoir & Pump Station Improvements
Austin Water	Ongoing Program	Service Extension Request Reimbursements
Austin Water	Ongoing Program	Transmission/Distribution
	Highlighted Need	Advanced Metering Infrastructure for Potable & Reclaimed Water Services

Austin Water	Ongoing Program	Treatment Plants
	Highlighted Need	Walnut Creek Wastewater Treatment Plant 100 MGD Expansion
	Highlighted Need	Davis Water Treatment Plant Treated Water Discharge System
	Highlighted Need	Davis Water Treatment Plant Power Distribution Upgrade
	Highlighted Need	South Austin Regional Wastewater Treatment Plant Trains A&B Blower Replacement
	Highlighted Need	South Austin Regional Wastewater Treatment Plant Tertiary Filter Improvements
	Highlighted Need	Walnut Creek Wastewater Treatment Plant Tertiary Filter Rehabilitation
Austin Water	Ongoing Program	Water Reclamation Initiative
Austin Water	Ongoing Program	Wastewater Collection
	Highlighted Need	Parmer Lane Interceptor
	Highlighted Need	Williamson Creek Wastewater Interceptor
Austin Water	Ongoing Program	Other

Strategic Capital Investments

The City also has needs for strategic capital investments in water infrastructure. Strategic investments may include innovative approaches to better meet departments' service to the community, respond to specific City Council-identified capital investment priorities, or to advance Imagine Austin goals through implementation of major capital projects that extend beyond the work of any one City department. Investments in Water Infrastructure will be an important part of implementing the Compact and Connected, Green Infrastructure, and Sustainable Water priority programs of Imagine Austin. Opportunities for strategic investment will be evaluated over the coming year for possible inclusion in next year's Rolling Needs Assessment.

DESCRIPTIONS

The Austin Water near-term work plan emphasizes replacement and rehabilitation of critical assets throughout the water and wastewater systems, which consist of horizontal assets (pipes, valves, etc.) and vertical assets (treatment plants, pump stations, reservoirs, lift stations, etc.). Furthermore, the work plan continues to emphasize the addition of reclaimed water assets. Austin Water is continually reassessing its long-term capital program plans in response to the changing conditions, including drought and related revenue challenges. As such, published CIP plans represent a snapshot in time and projects included in prior plans may be deferred while others are accelerated, affecting both short- and long-term plans for capital investments.

Ongoing Capital Programs

Austin Water's three utility systems, Water, Wastewater, and Reclaimed Water, are organized into twelve project types outlined below:

Annexed areas *Austin Water*

Capital investments to provide services to areas annexed by the City.

Lift stations *Austin Water*

Capital investments to build and improve wastewater lift stations.

Pump stations *Austin Water*

Capital investments to build and improve water pump stations.

Rehabilitation *Austin Water*

Capital investments to improve or replace existing water and wastewater piping infrastructure that are no longer adequate to provide sufficient, reliable service.

Relocation *Austin Water*

Capital investments to relocate water and wastewater facilities affected by road construction.

Reservoir *Austin Water*

Capital investments to build and improve water storage facilities.

Highlighted Project Need: North Austin Reservoir & Pump Station Improvements

Replacement of the aging North Austin Reservoir, a 10 million gallon concrete potable water reservoir which is among Austin Water's oldest assets in service. Originally designed in 1912, the reservoir has been modified and rehabilitated several times to extend its useful life and now slated for replacement due to ongoing performance issues.

Service Extension Request Reimbursements *Austin Water*

Capital investments to reimburse developers for water and wastewater facilities built on the City's behalf.

Transmission/Distribution *Austin Water*

Capital investments to build and improve water transmission and distribution infrastructure.

Highlighted Project Need: Advanced Metering Infrastructure for Potable & Reclaimed Water

Services: Project will upgrade customer water meters, system-wide, from visual read to electronic read network, with associated software. There will also be associated pressure management and leak detection capabilities. The Advanced Metering Infrastructure project will update customer meters and meter boxes, so that meter reads will no longer be collected manually, but instead by cellular or radio transmission. This will improve data collection, providing more accurate data, fewer re-reads, more timely data, and more granular data. It should reduce meter data errors. It will also reduce or eliminate meter reading costs, improve customer service and satisfaction, allow customer notification of potential customer-side leaks, and allow better system diagnostics through better leak detection, through district metering and/or integrated acoustic leak detection sensors. Installation will be dependent on the type of system chosen (RF or cellular), the cost of the system, the rate of replacement, integration into CC&B, and the staffing available for installations. Current limitations include lack of

interoperability between different manufacturers' systems, difficulty transmitting from some meter installations, and meter shop staffing to install the new metering system.

Treatment Plants

Austin Water

Capital investments to build and improve water and wastewater treatment facilities.

Highlighted Project Needs:

- Walnut Creek Wastewater Treatment Plant 100 MGD Expansion: Expansion of Walnut Creek Wastewater Treatment Plant capacity from 75 million gallons per day to 100 million gallons per day. The primary wastewater treatment facility serving central and north Austin is the Walnut Creek Wastewater Treatment Plant (WWTP) which has a rated capacity of 75 million gallons per day (MGD). Flows into the plant are projected to exceed 75 MGD as early as 2020, with planning and design activities to be performed well in advance. Additionally, it is anticipated Texas Commission on Environmental Quality (TCEQ) will increase treatment standards to include nutrient removal in the same time frame (dependent on permit renewal). To meet these two challenges, a major plant expansion will need to be undertaken to increase the treatment capacity from 75 MGD to 100 MGD, and the existing plant must be retrofitted such that it will be able to meet the new nutrient limits.
- Davis Water Treatment Plant Treated Water Discharge System: This project involves the renewal and enhancement of the aging Medium Service Pump Station at the Davis Water Treatment Plant. Originally constructed in 1952, the Davis Water Treatment Plant (WTP) is the workhorse of the Austin potable water system, producing potable water for the central, east and north parts of the city. Key functions at the plant are performed by original assets that are far beyond their expected useful life including the power distribution system and the medium service pump station (MSPS) which delivers the finished water to the distribution system. The Davis WTP Power Distribution and MSPS projects have been scoped and scheduled to renew and improve these integral plant processes with minimal disruption to facility operations, significantly extending the useful life of a facility that is a cornerstone of the Austin Water system.
- Davis Water Treatment Plant Power Distribution Upgrade: This project involves renewal and enhancement of aging electrical infrastructure at the Davis Water Treatment Plant. Originally constructed in 1952, the Davis Water Treatment Plant (WTP) is the workhorse of the Austin potable water system, producing potable water for the central, east and north parts of the city. Key functions at the plant are performed by original assets that are far beyond their expected useful life including the power distribution system and the medium service pump station (MSPS) which delivers the finished water to the distribution system. The Davis WTP Power Distribution and MSPS projects have been scoped and scheduled to renew and improve these integral plant processes with minimal disruption to facility operations, significantly extending the useful life of a facility that is a cornerstone of the Austin Water system.
- South Austin Regional Wastewater Treatment Plant Trains A&B Blower Replacement: This project involves renewal and enhancement of the aeration blower equipment serving the South Austin Regional Wastewater Treatment Plant (SAR WWTP). The South Austin Regional WWTP is a cornerstone of Austin wastewater collection system, treating sewage from much of central and south Austin using a multi-step process. The activated sludge biological process at the core of this treatment plant relies on large industrial blowers to deliver air to basins where microorganisms come in contact with sewage and decompose the organic matter. At present, the blowers which serve this aeration process are far beyond their expected useful life and in need of replacement. The SAR WWTP Trains A&B Blower Replacement project will replace these aged assets from the plant's original construction in

1988 with modern, efficient blowers reducing the operations and maintenance cost while improving reliability, operational flexibility, and energy efficiency. Additionally, air drops and diffusers will be added to the aeration basins of the three treatment trains to supply increased quantities of air required to treat sewage that has increased in strength by over 30% since the plant was originally constructed. Finally, an air header system will be installed to tie the new blowers to the existing Train C Blowers. In this manner the new blowers and the Train C blowers can work together to provide air throughout the plant regardless of which blowers are out of service and which basin are on-line.

- South Austin Regional Wastewater Treatment Plant Tertiary Filter Improvements: This project involves renewal and enhancement of aging filtration infrastructure at the South Austin Regional (SAR) Wastewater Treatment Plant (WWTP). The majority of Austin's wastewater is routed to either the South Austin Regional Wastewater Treatment Plant (WWTP) or the Walnut Creek WWTP where it is treated before being reclaimed for industrial and irrigation purposes or discharged into the Colorado River downstream of the city center. To consistently achieve the water quality stipulated in the discharge permit issued by the State of Texas, a filtration step is required after the primary and secondary treatment stages. At the South Austin Regional WWTP, the assets serving the filtration processes are nearing the end of their expected useful lives and must be rehabilitated or replaced. The South Austin Regional WWTP Tertiary Filter Improvements project will serve to extend the useful life of these assets, improve operational efficiencies at the plants, and address future capacity issues.
- Walnut Creek Wastewater Treatment Plant Tertiary Filter Rehabilitation: This project involves renewal and enhancement of aging infrastructure in the Walnut Creek Wastewater Treatment Plant Tertiary Filter building. The majority of Austin's wastewater is routed to either the South Austin Regional Wastewater Treatment Plant (WWTP) or the Walnut Creek WWTP where it is treated before being reclaimed for industrial and irrigation purposes or discharged into the Colorado River downstream of the city center. To consistently achieve the water quality stipulated in the discharge permit issued by the State of Texas, a filtration step is required after the primary and secondary treatment stages. At the Walnut Creek WWTP, the assets serving the filtration processes are nearing the end of their expected useful lives and must be rehabilitated or replaced. The Walnut Creek WWTP Tertiary Filter projects will serve to extend the useful life of these assets, improve operational efficiencies at the plants, and address future capacity issues.

Water Reclamation Initiative*Austin Water*

Capital investments to develop facilities to reclaim treated wastewater and distribute the reclaimed water for appropriate uses.

Wastewater Collection*Austin Water*

Capital investments to build and improve wastewater collection facilities.

Highlighted Project Needs:

- Parmer Lane Interceptor: The project includes the construction of 12,000 linear feet of 42-inch gravity interceptor west of Parmer Lane and the demolition of components of the Lake Creek and Rattan Creek Sewer Lift Stations. In late 2008, the City of Austin annexed the Anderson Mill area, adding 2.5 square miles of wastewater service area, along with wastewater collection and treatment assets of various ages and conditions. The Parmer Lane Interceptor project involves the installation of over two miles of large diameter wastewater pipeline along Parmer Lane between Anderson Mill and McNeil roads to better protect public health and the environment and reduce operating expenses by removing aged and underperforming wastewater facilities. Once installed, wastewater will flow by

gravity to the Walnut Creek wastewater treatment plant (WWTP) enabling the decommissioning of the Anderson Mill WWTP and the Lake Creek and Rattan Creek lift stations. This new wastewater infrastructure will not only eliminate the power, chemical, and labor costs of the existing facilities, but address outstanding capacity concerns in the nearby desired development zone.

- Williamson Creek Wastewater Interceptor: Approximately 18,000 linear feet of large diameter (66-inch +/-) gravity interceptor along/near Williamson Creek to increase the capacity of the Williamson Creek Interceptor from the existing 48-inch interceptor in the vicinity of South First Street. Existing Williamson Interceptor is at capacity.

Other

Austin Water

Capital investments to improve facilities and systems that are not in other categories, such as administrative buildings, service centers, and computer systems.

■ TYPICAL CIP FUNDING SOURCES

Capital Improvement Program (CIP) expenditures are necessary to ensure the ongoing integrity of the City's water, wastewater, and reclaimed water systems. Austin Water's financial policies, approved by the City Council, outline the funding requirements for its CIP projects. According to these policies, a mixture of current revenue and debt provide funding resources for CIP projects. The program is financed largely by the issue of commercial paper that is later refinanced with long-term debt serviced by Austin Water's revenues.

The costs of developing and administering the CIP program are included in Austin Water's operating funds. The costs of the CIP program are therefore a major influence on operating costs. Many CIP expenditures increase operating costs, because they result in assets that must be operated and maintained. However, rehabilitation and replacement of older assets can reduce operating costs by increasing the efficiency of the system.

In addition, the majority of capital expenditures are financed with long-term debt which must be serviced. Once debt is issued, the payments are an inflexible element in Austin Water's budget, so any required cost containment must come from the remainder of the budget. Currently, debt service accounts for about forty percent of Austin Water's revenue requirements. The projected Austin Water operating costs are increasing at a higher rate than the growth in base revenues.

Appendix A: Definitions

Area Plans: Area Plans are developed for a defined geographic area of the city, providing an opportunity for citizens to take a proactive role in the planning process to decide how the area will move into the future. The plans often address land use, transportation and urban design issues, and may include numerous implementation strategies, including policies, regulations, and desired City investments. Many of Austin's area plans are developed by City staff in coordination with the community, and do not require funding for consultants. However, sometimes consultants are sought to either facilitate the planning process or provide specific technical assistance. Funding used for external consultants to assist with the development of citywide plans such as the Imagine Austin Comprehensive Plan or specific-area plans is often considered a capital expense.

Cash transfers: Cash transfers are transfers of cash from department operating budgets or revenues. Revenue generated through the sale of certain services, such as the provision of utilities, may be used to fund some capital improvement projects. This money is transferred from the operating fund of certain departments to the capital budget. Departments may also get income from fees, such as the Transportation User Fee, which is assessed each month as part of the electricity bill to residents and businesses based on traffic levels generated by each dwelling unit or business. Other fees that can fund capital improvement projects are those that developers provide to the City if the developer chooses not to create the required infrastructure with the development of a project. For example, some developers may opt to pay a parkland dedication fee instead of creating a park as part of a new residential development if that is an option. Similar to funds raised through services, fees are transferred to a department's capital budget to fund capital improvement projects.

Certificate of Obligation: A certificate of obligation (CO) is used to obtain quick financing for real property and construction. COs are secured by the full faith and credit of the City and are repaid over a 20-year period. According to Texas state law, the City's intent to issue a certificate must be published in the local newspaper 30 days in advance. COs do not require voter approval unless 5% of qualified voters sign a petition to put it on the ballot and file it with the City Clerk.

Commercial Paper: Commercial paper is a very short-term debt, usually due within 30-45 days and used as an interim financing instrument for capital expenditures that provides for lower interest costs and flexibility. Generally, the notes are backed by a line of credit with a bank. By official City policy, COs can be used to finance urgent, unanticipated expenditures or those that are necessary to prevent an economic loss to the City. They can also be used when the capital expenditure is revenue generating or when COs are the most cost-effective financing option.

Contractual Obligations: Contractual Obligations (KOs) are a short-term debt instrument that does not require voter authorization. KOs are used to finance the purchase of items such as equipment and vehicles. By official City policy, KOs can be used to finance urgent, unanticipated expenditures or those that are necessary to prevent an economic loss to the City. They can also be used when the capital expenditure is revenue generating or when KOs are the most cost-effective financing option.

Electric: Capital improvements may include creating new and or improving existing electric infrastructure including, but not limited to, studies, design, new construction, realignment of, replacement of, deepening or widening of, or closing existing infrastructure.

Enterprise Government Department: Enterprise Government Departments are able to generate revenue to pay for their capital needs. Examples include infrastructure like water lines, telecommunications and energy. Revenue may be generated through user fees, such as electric and water utility rates; airport passenger facility charges; drainage utility fees; and pay-as-you go fees for waste pick up and disposal.

Facilities: Capital improvements may include improvements related to an expansion or renovation to an already existing facility or facilities and all activities related to the construction of a new facility or facilities.

General Government Department: General Government Departments do not generally generate revenue in amounts sufficient to pay for their capital project needs. Therefore, these departments need outside funding sources such as voter-approved bonds and/or federal grants.

Grants: Grants are funds disbursed by one party (grant makers)—often a government department, corporation, foundation or trust—to a recipient, which is often a nonprofit or government entity, educational institution, a business or an individual. Most grants are made to fund a specific project and require some level of compliance and reporting. Additionally, a funding “match” is often required at a certain split, e.g. 80-20 in which the grant recipient provides 20% of total project cost and receives a grant for the remaining 80%. Grants are a good way to leverage bond funds, so many capital improvement projects are funded in part by grants. An example of a grant-funded/leveraged project is East Austin’s Colony District Park, a 93-acre park that underwent extensive planning and visioning in 2014 and 2015, and which received a \$725,000 state grant to leverage \$731,000 of 2012 Bond Program funding and \$60,000 from parkland dedication fees to pay for the first phase of improvements in the park master plan.

Housing: Capital improvements may include activities related to neighborhood and/or community housing and development.

Land Acquisition: Capital improvements may include activities related to the purchase or acquisition of land including, but not limited to, park land, open spaces, easements, or land on which to build new facilities.

Mobility Infrastructure: Capital improvements may include the creation of new and/or improvements to existing transportation infrastructure including, but not limited to, preliminary engineering, designs, streets, sidewalks, trails, pedestrian improvements, signs, signals, markings, traffic mitigation, bridges and mass transit infrastructure-related activities such as transit plans, and to fund matching initiatives.

Other Infrastructure Improvements: This section identifies capital improvement needs that do not fit neatly into the other infrastructure types listed previously.

Park Infrastructure: Capital improvements may include all activities related to the creation of or improvement to parks and recreation infrastructure including, but not limited to, amenities, structures, playscapes, sport courts and fields, pools, golf courses, field lighting, path creation or improvements, master plans or studies, or design of projects. (Note: improvements or construction of new Parks and Recreation facilities are listed under the Facilities category.)

Public Improvement District (PID): A PID is a defined geographical area established to provide specific

types of improvements or maintenance within the area, which are financed by taxation of the properties within the PID. PIDs are established through approval by City Council at the request of members of the PID. PIDs can provide a means to fund services and improvements to meet community needs that could not otherwise be constructed. Examples include the Austin Downtown Public Improvement District, created in 1993, and the newer South Congress Avenue PID. Both PIDs provide a funding source that leverages other City infrastructure investments in their respective district.

Revenue bonds: Revenue bonds are repaid from a specific source of revenue and do not affect the property tax rate. Repayment may be derived from operation of the revenue bond-financed project, grants, sales, or other taxes that are not property taxes.

Stormwater: Capital improvements may include the creation of new and/or improvements to existing drainage infrastructure including, but not limited to studies, design, new construction, realignment of existing infrastructure, replacement of existing infrastructure, deepening or widening of existing infrastructure, or closing existing infrastructure.

Tax Increment Financing (TIFs): TIFs are a method to use future gains in taxes to subsidize current improvements, which are projected to create the conditions for projected tax gains. The completion of a public or private project often results in an increase in the value of surrounding real estate, which generates additional tax revenue. The Waller Creek Tunnel project is an example of a TIF-funded project in the CIP. City Council created the Waller Creek Tax Increment Financing Reinvestment Zone No. 17 in 2007 to finance the construction of flood control improvements along lower Waller Creek, which will create desirable conditions for public and private development. The City will dedicate 100% of its tax increment revenue to repay itself for the improvements and Travis County will dedicate 50% of its tax increment revenue from the TIF district.

Voter-Approved Bond Programs: When voters consider bond propositions on an election ballot, they are considering allowing the City to issue general obligation (GO) bonds. GO bonds give cities a tool to raise funds for capital improvement projects, such as roads, bridges, bikeways and urban trails and parks, that are otherwise not funded by City revenue. Voter-approved GO bonds are repaid through property taxes. The property tax rate is composed of two parts: the Operations and Maintenance rate and the debt service rate. The debt service rate is set in order to generate the revenue necessary to make the City's payments for tax-supported debt. When voters approve bond propositions, the City does not issue all of the debt immediately. Instead, debt issuances are spread out over several years according to the annual spending needs of the bond program.

Water Infrastructure: Capital improvements may include new and/or improvements to existing water, wastewater, and reclaimed water infrastructure including, but not limited to, studies, design, new construction, realignment of existing infrastructure, replacement of existing infrastructure, deepening or widening of existing infrastructure, or abandoning existing infrastructure.