



Looking Ahead at Neighborhood Transit in the Downtown Area Memorandum

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Prepared for:
Public Transit Department, City of Phoenix





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ACRONYMS

AoC	Areas of Concern
BRT	Bus Rapid Transit
COP	City of Phoenix
DASH	Downtown Area Shuttle
DAR	Dial-a-Ride
DRAB	Downtown Redevelopment Area Boundary
DTPU	Downtown Transportation Plan Update
e-scooter	Electric Scooter
EB	Eastbound
FTA	Federal Transit Authority
HCT	High-Capacity Transit
LRT	Light Rail Transit
MaaS	Mobility-as-a-Service
MAG	Maricopa Association of Governments
NB	Northbound
PTD	City of Phoenix Public Transit Department
ROW	Right of Way
SB	Southbound
TAZ	Traffic Analysis Zone
TNC	Transportation Network Company
UPRR	Union Pacific Railroad
WB	Westbound



1 INTRODUCTION

The City of Phoenix Public Transit Department (PTD), in partnership with Valley Metro, provides transit services in downtown Phoenix. This includes light rail transit (LRT), RAPID bus service, local bus routes, the four neighborhood circulators, and Dial-a-Ride (DAR) shared service. With the upcoming and planned developments and infrastructure changes in the downtown area, PTD would like to evaluate how these planned projects could impact the current transit system.

This memorandum provides an inventory of recent and upcoming developments, street improvements, planned transit services, and transit service changes occurring in downtown Phoenix. An analysis of all known upcoming and planned projects was conducted to determine the challenges the transit network will face as a result of the changing landscape of the downtown area. In response to these challenges, potential impacts within the downtown area were identified and are expected to be monitored by PTD to understand the changing needs and transit demand as planned projects move forward. In addition, high-level solutions were recommended to alleviate some of the future challenges the transit system could encounter, including the development of a Transit Guidelines and Policies document to aid developers and city engineers in transforming the urban landscape of downtown Phoenix.

This memo is organized into the following sections:

- **Section 1** provides the background and overview for this report.
- **Section 2** provides a brief historical examination of downtown area development for contextual reasoning and historical precedence.
- **Section 3** examines the current and future population and employment growth.
- **Section 4** identifies the upcoming and planned developments to best understand future spatial distribution and concentration of activity centers.
- **Section 5** looks at the existing and planned transit services and near-term transit service changes due to the construction of the South Central LRT extension and the redevelopment of Central Station.
- **Section 6** provides a list of programmed and planned street improvements that would temporarily or permanently impact transit services.
- **Section 7** discusses the potential impacts the downtown area could face due to the projects listed in **Sections 4, 5, and 6**.
- **Section 8** provides high-level solutions recommended to combat the potential impacts discussed in **Section 7**.

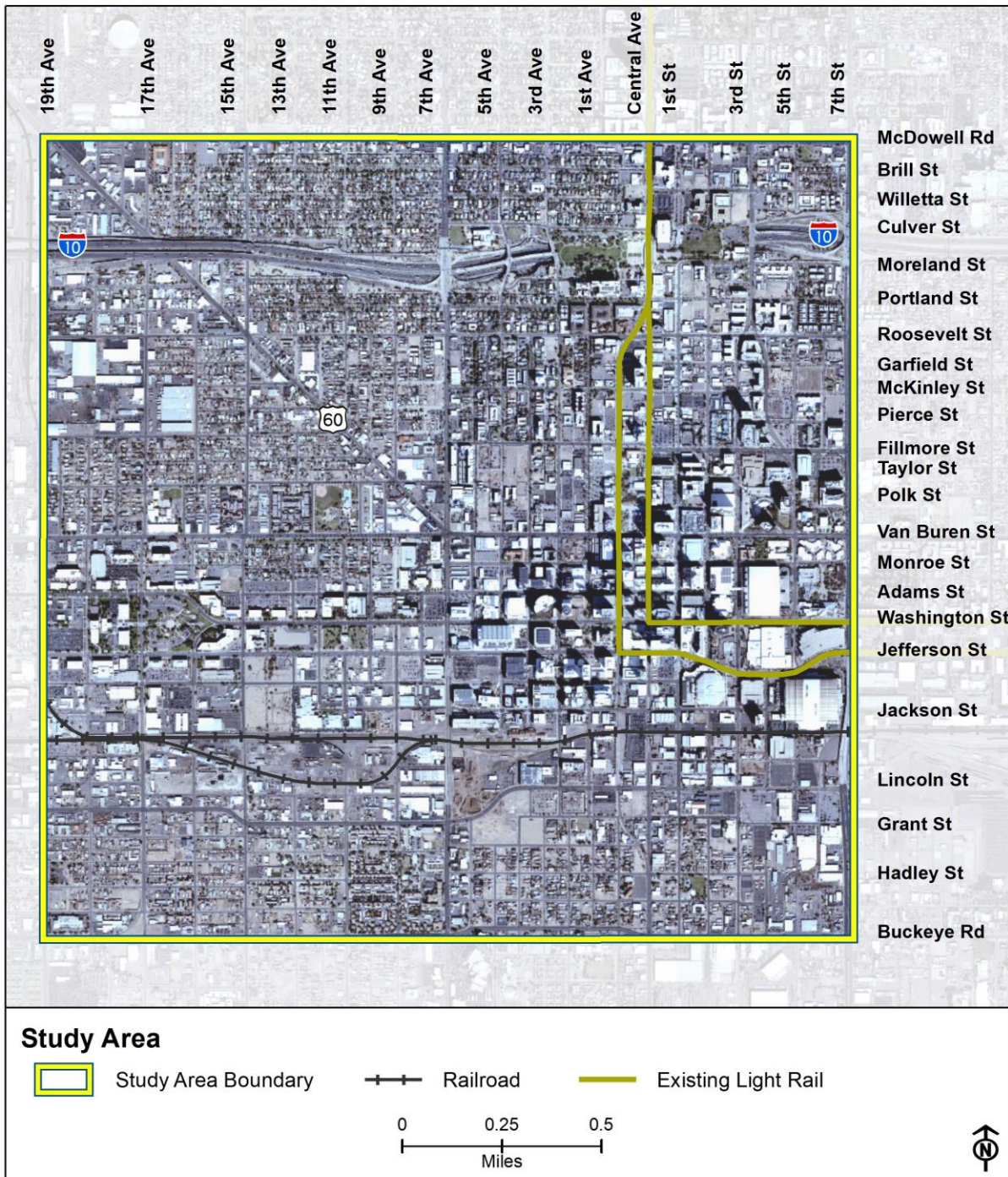
1.1 Study Area

Figure 1 illustrates the study area. The limits of the study area are McDowell Road to the north, Buckeye Road to the south, 19th Avenue to the west, and 7th Street to the east. This study area



encompasses all recent and upcoming developments, street improvements, and transit service changes that will be discussed in the latter sections of this memo.

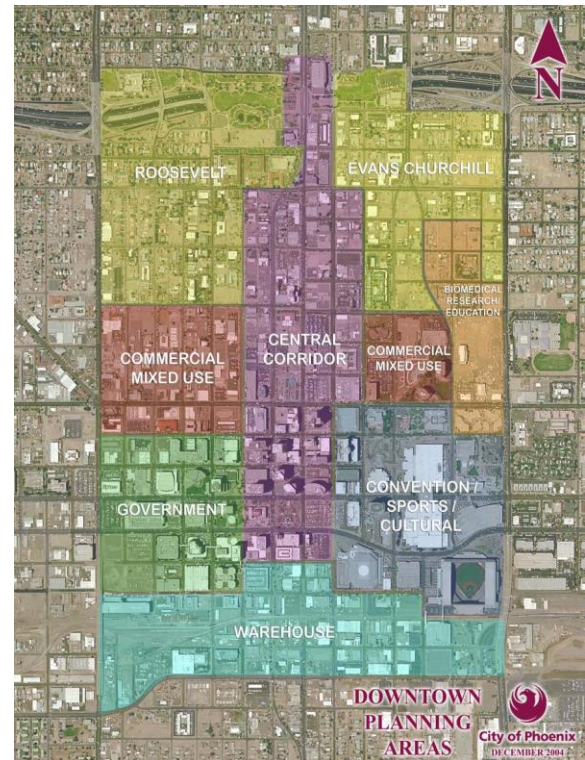
Figure 1: Study Area





2 DOWNTOWN DEVELOPMENT HISTORY

The downtown Phoenix area has evolved through multiple iterations of development and economic trends. After the suburban exodus in the early 1970s, the downtown area was left with few development and growth opportunities. The first attempt at revival took place between 1979 and the late 1990s. In 1979, the Phoenix City Council initiated the Downtown Area Redevelopment Plan and created the Downtown Redevelopment Area Boundary (DRAB), encompassing the central downtown area. This initiative slowly began to reignite interest in the downtown area and saw the completion of new developments off the I-10, City Hall, Burton Barr Central Library, and Margaret T. Hance Park. These developments provided the essential infrastructure for the Colangelo Downtown Phoenix Partnership and Valley Leadership to back bonds that brought the renovated and expanded Convention Center, the Collier Center, several sports franchises, and the ASU downtown campus in the mid to late 2000s. Further booms in development lead the Phoenix City Council to reevaluate the 1979 DRAB and expand it in 2017 to include the surrounding districts on all sides. The updated DRAB can be found at the following webpage: [Downtown Phoenix Redevelopment Area Study](#).



The 1979 Downtown Redevelopment Area Boundary, as used in the City of Phoenix's *Downtown Phoenix: A Strategic Vision and Blueprint for the Future* (2004)

In conjunction with the growth in development, the Regional Public Transit Authority was created in 1985 to build a new transit system in Maricopa County. This agency later became Valley Metro in 1993. Through sales tax initiatives, Valley Metro has maintained and operated the regional transit system. In 2008, Valley Metro expanded on the existing transit system (buses and rural shuttles) to include a 20-mile LRT starter line that would traverse Phoenix, Tempe, and Mesa. Subsequent extensions totaling 8.2 miles have since opened, including one along Main Street in Mesa that extended the line to Mesa Road (August 2015) and later Gilbert Road (May 2019), and another, known as the Northwest Extension, that extended the line along 19th Avenue in Phoenix (March 2016). As population and development in the region have steadily increased over the last few decades, Valley Metro and PTD have continued to expand the transit system to meet demand.

Presently, mixed-use spaces, adaptive reuse of the Warehouse District, and further university expansions have created stimuli for new development and transportation needs in the downtown area. The City of Phoenix (COP), in partnership with Valley Metro, has adapted to



these needs with planned extensions to the existing 28.2-mile LRT system and service enhancements to the local bus routes. To complement the current transit network in the downtown area, the Downtown Area Shuttle (DASH) circulator is currently operating to serve the area between Central Station and the Arizona State Capitol Mall corridor. Pilot programs for rentable electric scooters (e-scooters) and bicycles are also available through public-private partnerships. Other future transit system additions are described in **Section 5** of this memo.



3 POPULATION AND EMPLOYMENT

The demographic growth of the downtown area is closely tied to the redevelopment initiatives currently being undertaken. This section reviews the current and projected future population and employment densities that are likely to increase demand on the existing transit service network. Adopted Maricopa Association of Governments (MAG) Socioeconomic Projections were analyzed to provide a better understanding of where future transit services could be needed to service high-density areas within the downtown area efficiently. **Figures 2 through 7** illustrate population and employment densities for 2019 and 2040 and the rates of change between those years in the downtown area by Traffic Analysis Zones (TAZ).

3.1 Population

The current (2019) population density is mostly centered around the existing transit system, university campuses, and employment opportunities in the downtown area, as shown in **Figure 2**. **Figure 3** illustrates a significant increase in projected population density in the downtown area, especially within the Central Avenue Corridor and Warehouse District. The population growth for these areas could be correlated to the various recent and upcoming developments listed in **Section 4** that are occurring or planned. Another draw for population growth in the downtown area is its connectivity to the region due to a centralized multimodal transportation network. Highways and freeways, such as I-17, I-10, and Grand Avenue (US 60), service the downtown area. In conjunction, the area is also served by various transit services such as LRT, local and express bus routes and the DASH thereby providing several mobility options. **Figure 4** shows the rate of increase in population over the 21-year period.

3.2 Employment

Current employment in the downtown area is concentrated around Central Avenue and south of Van Buren Street, as shown in **Figure 5 and Figure 6**. The major employers in this corridor are the COP, Maricopa County, and several university campuses. This area is home to various economic generators such as Talking Stick Arena, Arizona Federal Theater, Chase Field, and the Phoenix Convention Center.

Recent and upcoming developments and investments in the downtown area are the main drivers for increased employment projections. **Figure 7** shows projected employment growth throughout the downtown area that can be attributed to economic investments inventoried in **Section 4** of this memo. In addition, areas around the downtown area show an increase in employment density compared to 2019, such as the area south of Grand Avenue (US 60). **Figure 7** shows the rate of increase in employment over a 21-year period. Several upcoming developments to the area will see an increase in retail, business, and mixed-use spaces to house new and expanding employment opportunities.



Figure 2: Population Density 2019

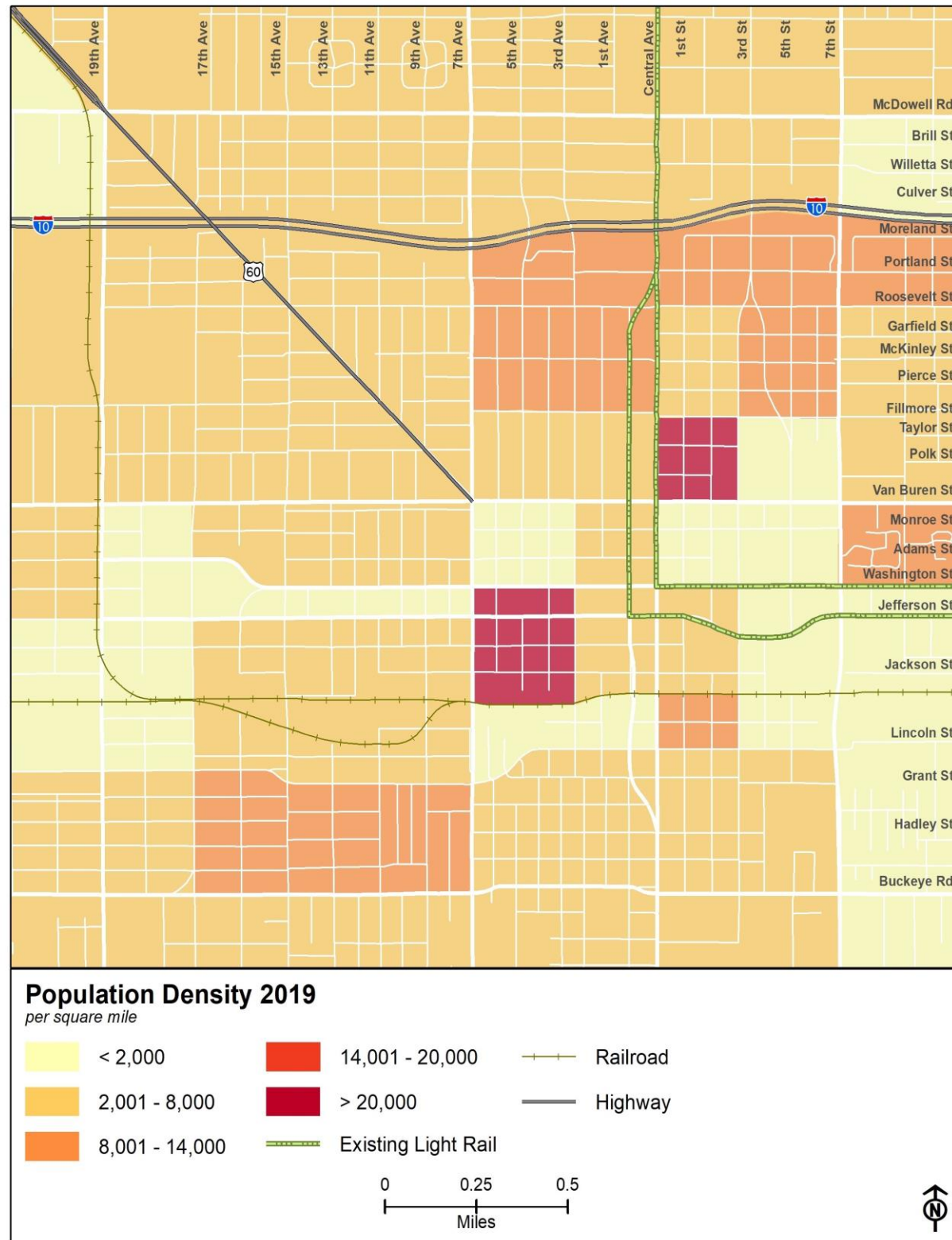


Figure 3: Population Density 2040

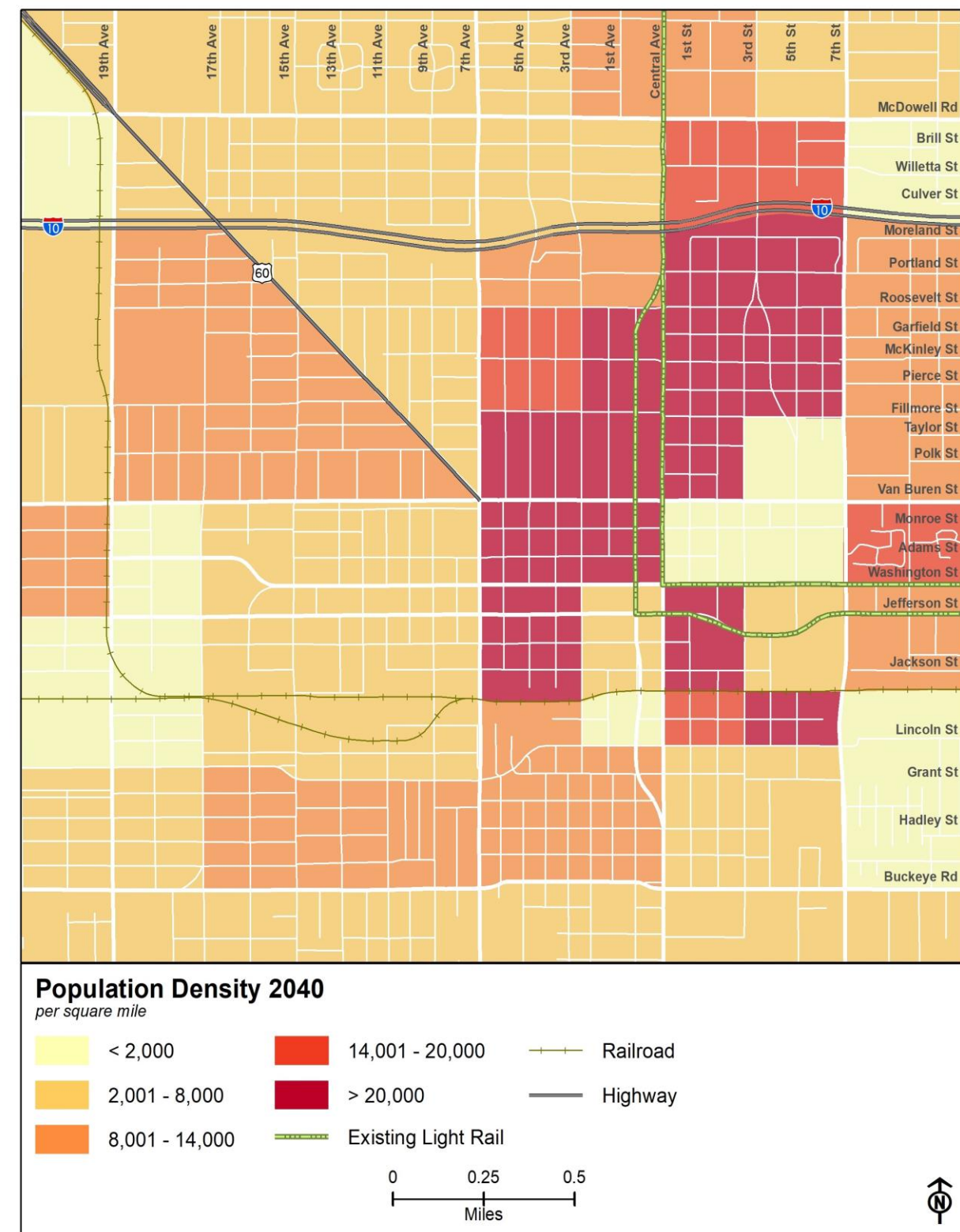




Figure 4: Population Density Growth Percentage

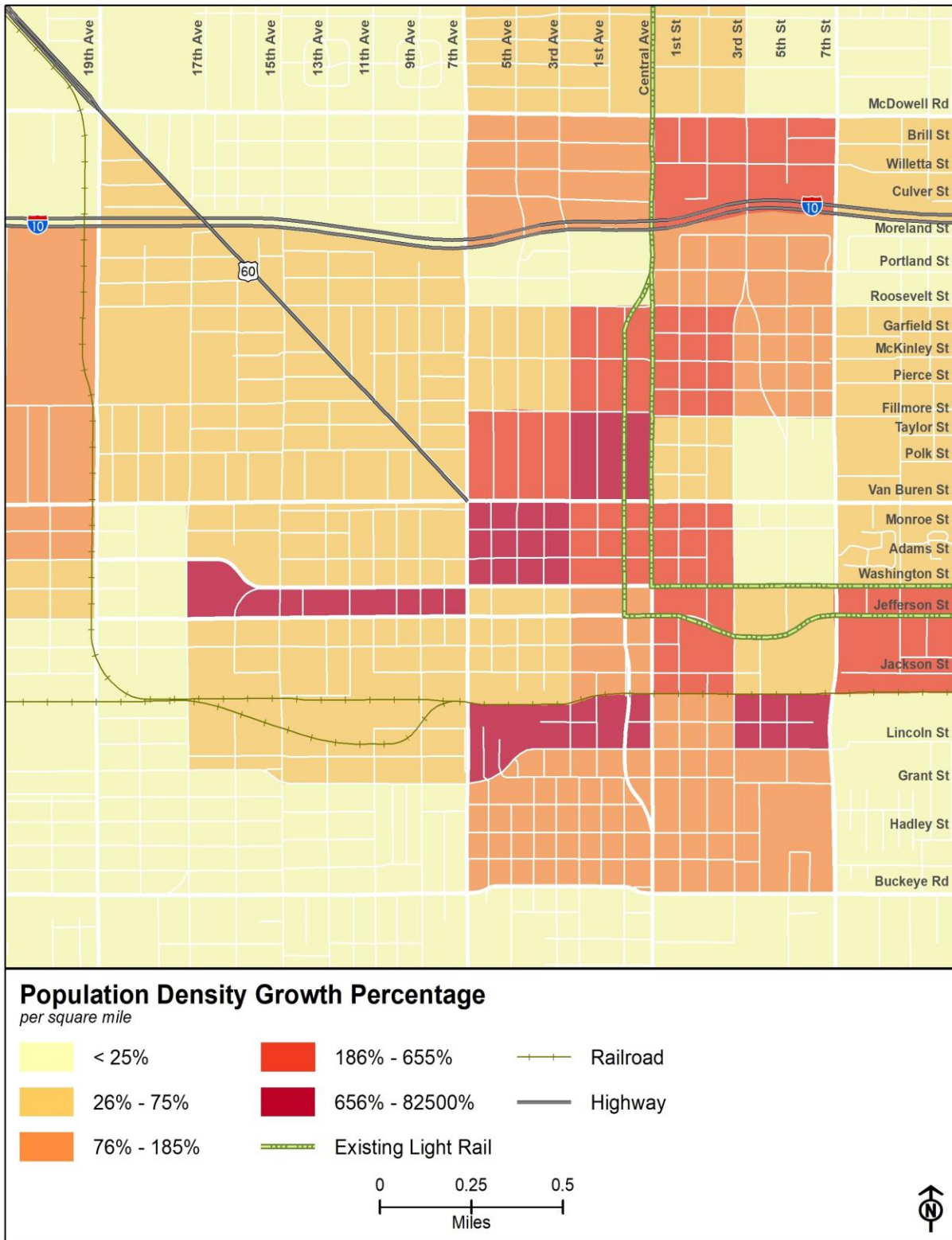




Figure 5: Employment Density 2019

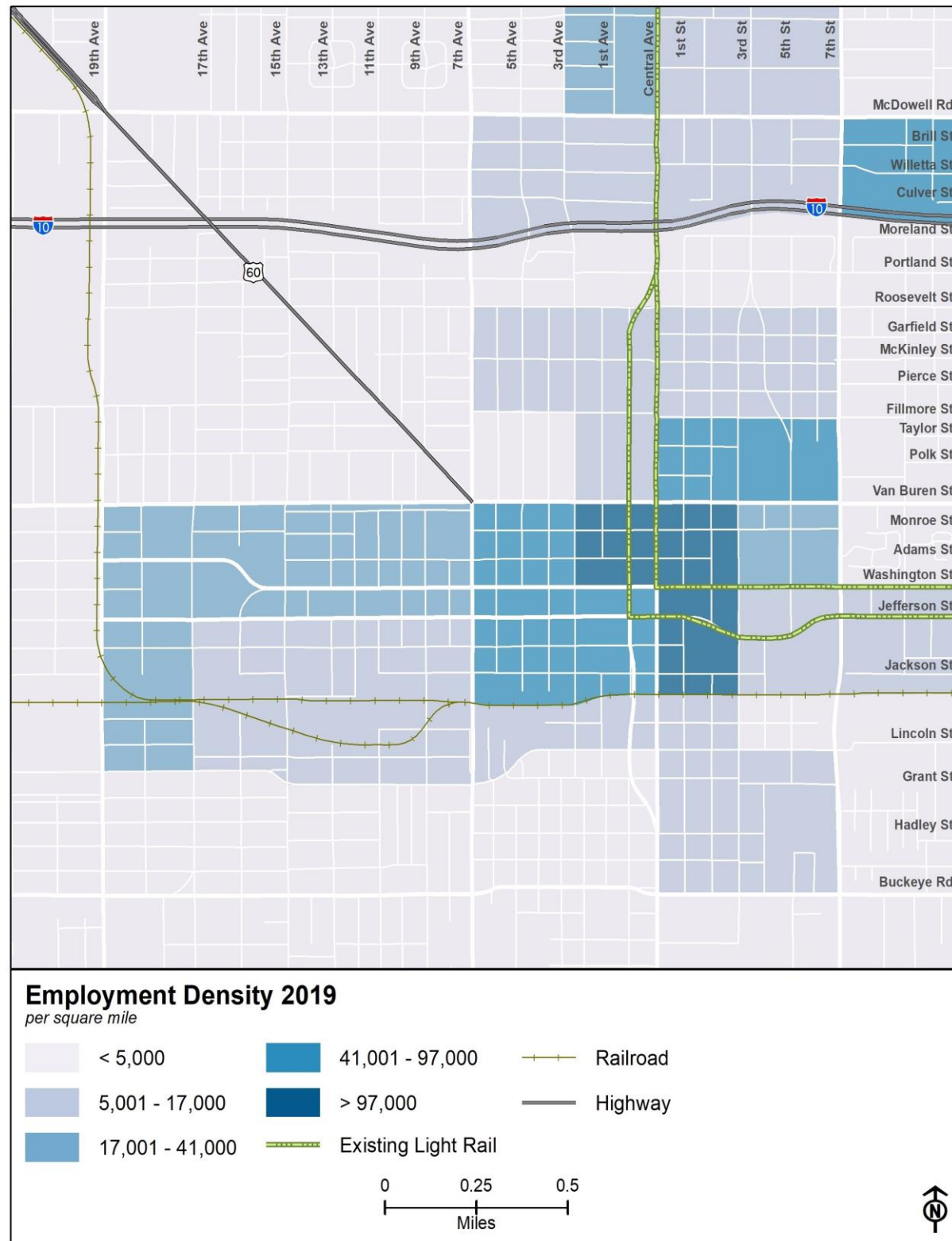


Figure 6: Employment Density 2040

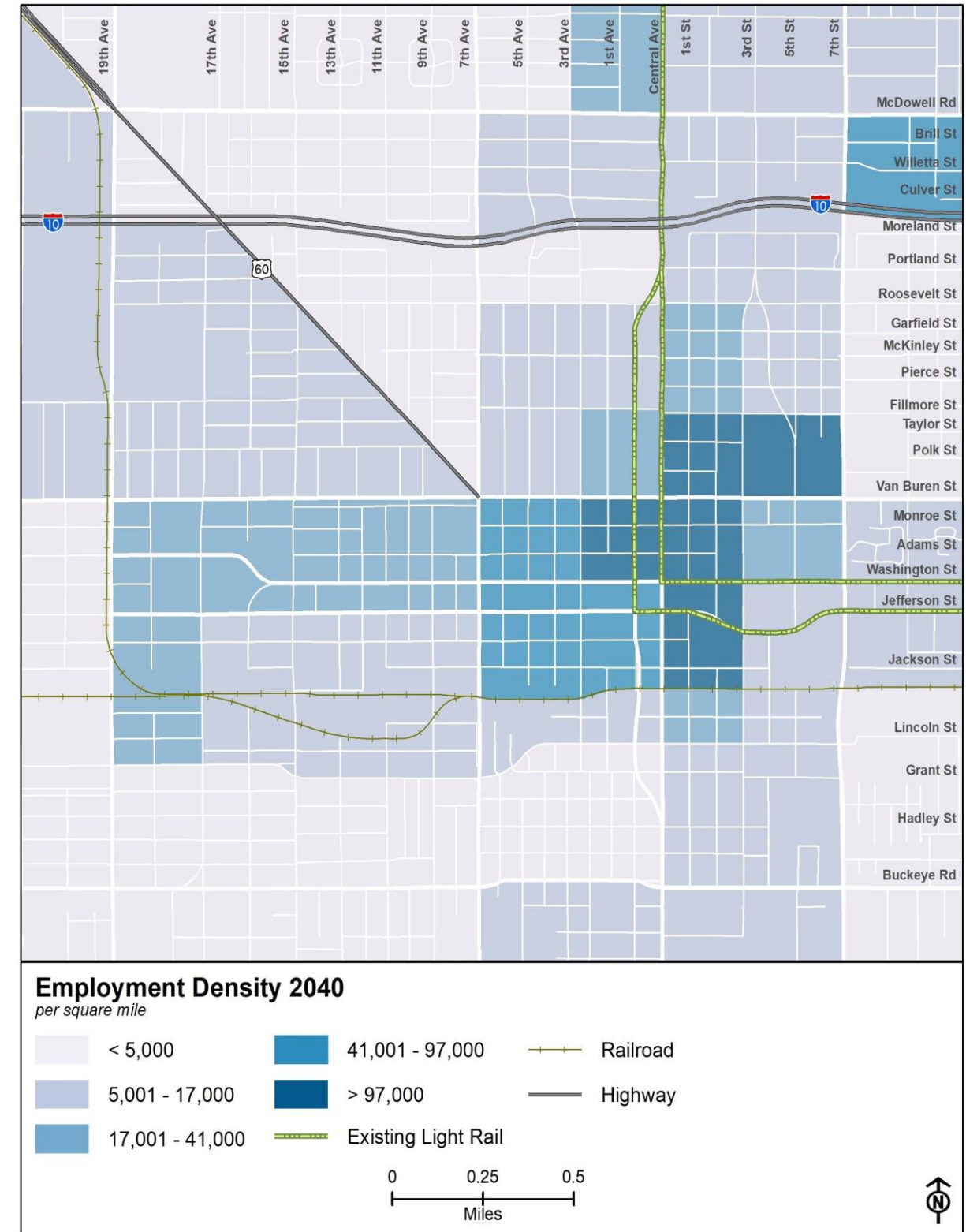
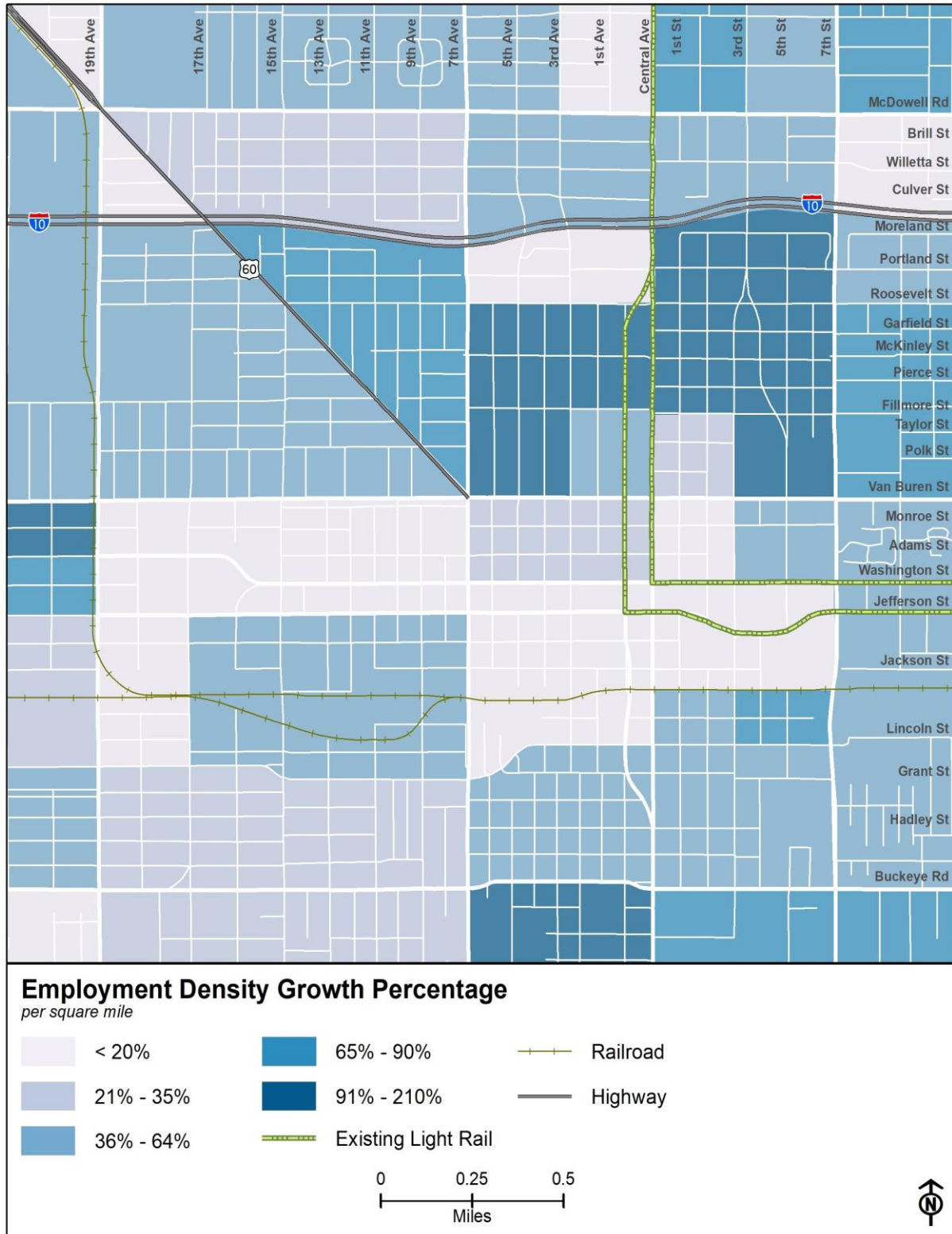




Figure 7: Employment Density Growth Percentage





4 RECENT AND UPCOMING DEVELOPMENTS

Table 1 inventories the recent and upcoming developments within the downtown area gathered by the Phoenix Street Transportation Department. The developments included in this inventory are a snapshot of the projects derived from capital investment in buildings and spaces that will result in new land uses, or adaptive reuse of land, for residential, commercial, or mixed-use purposes. These developments will increase the urban density within the downtown area, resulting in an increased demand for mobility options for regional connectivity and neighborhood circulation. The developments captured have been categorized to better understand the types of developments the downtown area is attracting. **Figure 8** shows the location and type for each development referenced in **Table 1**.

Table 1: Recent and Upcoming Developments

No.	Name	Status	Location	Development Type		Organizations
1	The Churchill	Opened	901 N. 1st St.	Restaurant	19 units	FTG Projects
2	Vintage 45	Opened	45 W. Buchanan St.	Event Venue		
3	Scientific Technology Corporation	Opened	411 S. 1st St.	Office Space		Scientific Technology Corporation
4	Urban Axes	Opened	402 S. 1st St.	Restaurant		
5	Galvanize	Opened	515 E. Grant St.	Office Space	125,000 sq ft	Technology School
6	Arizona Center	Opened	455 N. 3rd St.	Mixed-Use		
7	Hampton Inn	Opened	77 E. Polk St.	Hotel	210 units	Mortenson Company
8	ArtHaus	Opened	1717 N. 1st Ave.	Residential	25 units	
9	The Derby Roosevelt Row	Opened	800 N. 2nd St.	Residential	211 micro-units	Transwestern Commercial Real Estate



No.	Name	Status	Location	Development Type		Organizations
10	Residence at Collier Center	Opened	201 E. Washington St.	Mixed-Use	4,500 sq ft 379 units	Transwestern
11	The Sheraton Grand Phoenix	Opened	340 N. 3rd St.	Hotel	1000 rooms	
12	The Hyatt Regency Phoenix	Opened	122 N. 2nd St.	Hotel	240 rooms	
13	University of Arizona - Phoenix Campus	Opened 2012	435 N. 5th St.	Education	220,000 sq ft	University of Arizona, Wexford Science & Technology
14	UA Health Services Education Building	Opened 2012	435 N. 5th St.	Education	225,000 sq ft	University of Arizona, Wexford Science & Technology
15	UA Eller College of Management	Opened 2014	435 N. 5th St.	Education	225,000 sq ft	University of Arizona, Wexford Science & Technology
16	UA Cancer Center	Opened 2016	435 N. 5th St.	Education		University of Arizona, Wexford Science & Technology
17	Biosciences Partnership Campus and High School	Opened 2017	435 N. 5th St.	Education		University of Arizona, Wexford Science & Technology
18	NAU Medical Campus	Opened 2017	435 N. 5th St.	Education	10 stories	Northern Arizona University



No.	Name	Status	Location	Development Type		Organizations
19	Phoenix Biomedical Campus	Opened 2017	435 N. 5th St.	Education	519,052 sq ft	Co-operative
20	Union @ Roosevelt	Opened 2017	888 N. 1st Ave.	Mixed-Use	80 units	MetroWest
21	En Hance Park	Opened 2017	1130 N. 2nd St.	Residential	49 units	Sencorp
22	The Oscar Phoenix	Opened 2017	206 E. Portland St.	Residential	11 units	Stark James
23	Portland on the Park Phase 2	Opened 2017	200 W. Portland St.	Mixed-Use	72,000 sq ft retail 149 units	Habitat Metro, Sunbelt Holdings
24	The Van Buren	Opened 2017	401 W. Van Buren St.	Event Venue		Stateside Presents, Genuine Concepts
25	Roosevelt Row Apartments	Opened 2018	330 E. Roosevelt St.	Residential	316 units	Weidner Apartment Homes
26	Punch Bowl Social	Opened 2019	903 N. 2nd St.	Restaurant		True North Studio
27	Block 23	Opened 2019	101 E. Washington St.	Mixed-Use	330 units 250,000 sq ft	RED Development, Streetlights Residential, Fry's. Food Stores
28	The Cambria Hotel	Opened 2019	222 E. Portland St.	Hotel	127 rooms	True Studio LLC
29	CIRCA Central Avenue	Opened 2019	1505 N. Central Ave.	Mixed-Use	220 units	Ryan Companies



No.	Name	Status	Location	Development Type		Organizations
30	Portrait at Hance Park	Opened 2019	1313 N. 2nd St.	Mixed- Use	325 units	Transwestern
31	The Link PHX	Opened 2019	330 E. Pierce St.	Mixed-Use	612 units	CA Ventures
32	The Stewart	Opened 2019	800 N. Central Ave.	Mixed-Use	312 units	Empire Group
33	Urban Living on Fillmore	Opened 2019	609 N. 2nd Ave.	Residential	63 units	Native American Connections
34	El Norteno	Opened 2019	1002 7th Ave.	Restaurant		
35	The Ryan	Opened 2020	188 E. Jefferson St.	Residential	330 units	Alliance Southwest, LLC
36	The McKinley	In Development – Summer 2020	2nd Ave. and McKinley St.	Residential	108 units	Baron Properties
37	Alta Warehouse District	In Development – Q2 2020	402 W. Lincoln St.	Mixed-Use	300 units	Wood Partners
38	The Fillmore	In Development – Q4 2020	4th Ave. and Fillmore St.	Residential	692 units	Trammel Crowe
39	Aspire (Duo on Fillmore)	In Development – Q1 2021	3rd Ave. and Fillmore St.	Mixed-Use	254 units	Aspirant Development
40	AC Hotel at Arizona Center	In Development – 2022	5th St. and Van Buren St.	Hotel	200 units	
41	Kenect Phoenix	In Development	Central Ave. and Polk St.	Mixed-Use	320 units	



No.	Name	Status	Location	Development Type		Organizations
42	Lincoln Union	In Development	5th St. and Lincoln St.	Office Space	92,202 sq ft	Montana Avenue Capital Partners & Humphrey's Co.
43	X Phoenix	In Development	2nd Ave. and Monroe St.	Mixed-Use	253 units	PMG
44	The Battery	In Development	301 E. Buchanan St.	Mixed-Use	276 units	JMA Ventures LLC
45	County Office Space	In Development	225 W. Madison St.	Office Space	264,000 sq ft	Maricopa County
46	Roosevelt on 5th	In Development	NE corner of Roosevelt St. and 5th St.	Mixed-Use	3 stories	
47	Palm Court Tower	In Development	5th St. and Van Buren St.	Residential	350 units	American Development Group
48	Ro2	In Development	2nd St. North of Roosevelt St.	Mixed-Use	300,000 sq ft 77,000 sq ft retail, 32 units	True North Holdings
49	Josephine	In Development	218 E. Portland St.	Restaurant		TNS Lifestyle
50	City Center on the Park	In Development	1314 N. 3rd St.	Mixed-Use	4,500 sq ft 319 units	Transwestern
51	McKinley Row	In Development	808 N. 4th Ave.	Residential	18 units	MetroWest
52	EcoPHX	In Development	3rd Ave. and Roosevelt St.	Mixed-Use	70 units	Habitat Metro



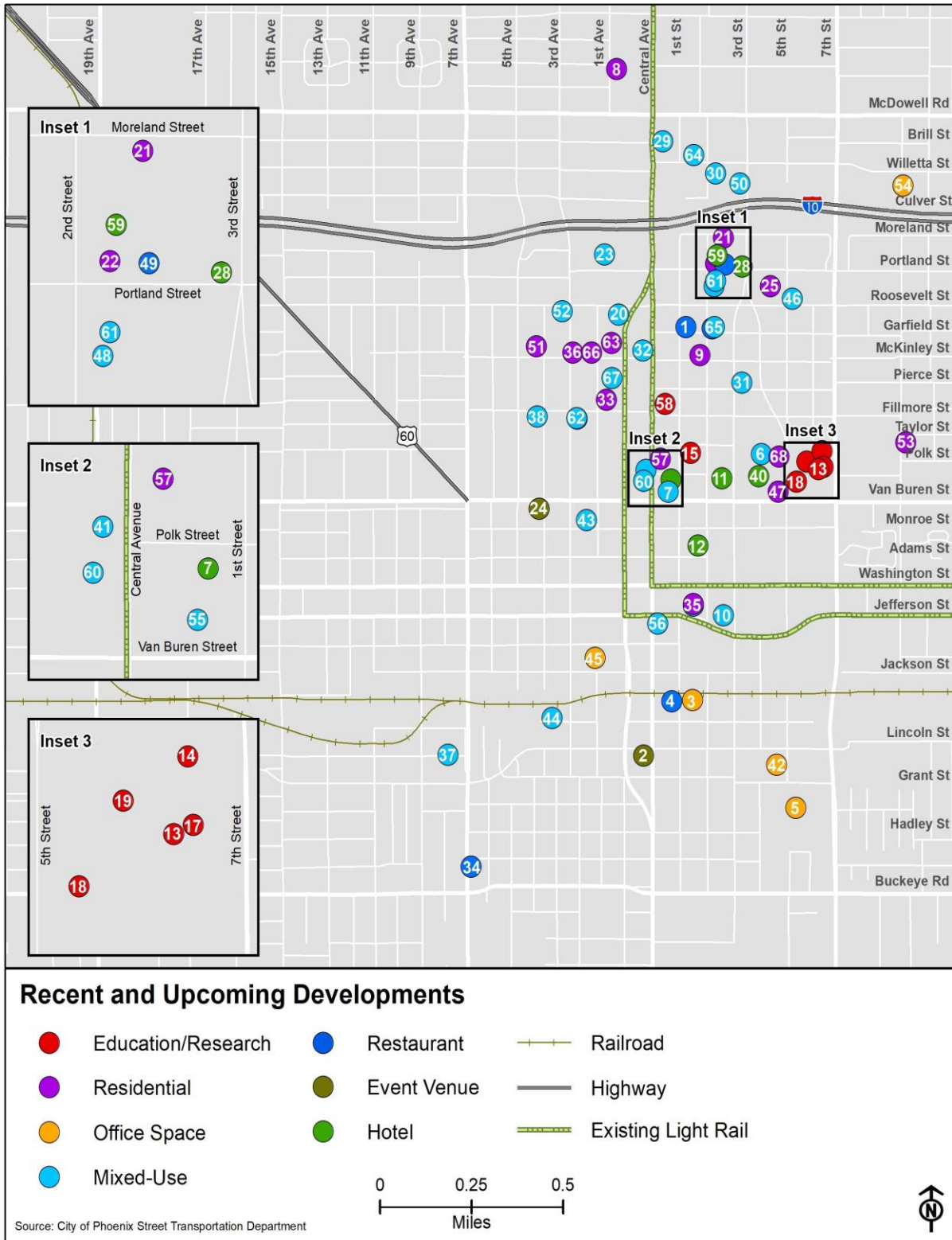
No.	Name	Status	Location	Development Type	Organizations
53	Residency at Verde Park	In Development	475 N. 9th St.	Residential	43 units
54	YWCA	In Development	775 E. Willetta St.	Office Space	32,000 sq ft Banner Health
55	Freeport McMoRan Center	In Development	333 N. Central Ave.	Mixed-Use	501,200 sq ft 242 rooms Freeport McMoRan
56	Barrister Place	Pre-Submittal/ Pre-Approval	101 S. Central Ave.	Mixed-Use	28,836 sq ft 172 units Crescent Bay Holdings
57	ASU-Downtown Phoenix Campus	Pre-Development	411 N. Central Ave.	Residential	13 stories Arizona State University
58	ASU-Downtown Phoenix Campus	Pre-Development	1E W. Fillmore St.	Garage	400 spaces Arizona State University
59	The Godfrey Hotel	Pre-Development	1111 N. 2nd St.	Hotel	297 rooms
60	Central Station	Pre-Development – Fall 2024	300 N. Central Ave.	Mixed-Use	45,000 sq ft 150 rooms 300 units Electric Red Ventures
61	Knipe House	Pre-Development	1025 N. 2nd St.	Mixed-Use	Historic house
62	Astra	Pre-Development	2nd Ave. and Fillmore St.	Mixed-Use	



No.	Name	Status	Location	Development Type	Organizations
63	McKinley Green	Pre-Development	NWC McKinley St./1st Ave.	Residential	384 units
64	Willetta Apartment Homes	Pre-Development	Willetta St. b/w. 1st and 2nd St.	Mixed-Use	150 units
65	Evans Churchill West	Pre-Development	NE corner 2nd St. and Garfield St.	Mixed-Use	
66	Residences on Second Avenue	Pre-Development	NW corner 2nd Ave. and McKinley St.	Residential	6 units
67	2nd and Fillmore Multifamily	Pre-Development	Full Block Fillmore St. and 2nd Ave.	Mixed-Use	333 units
68	5th and Van Buren Apartments	Pre-Development	5th St. center block between Van Buren St. and Fillmore St.	Residential	230 units



Figure 8: Recent and Upcoming Developments





5 TRANSIT SERVICES

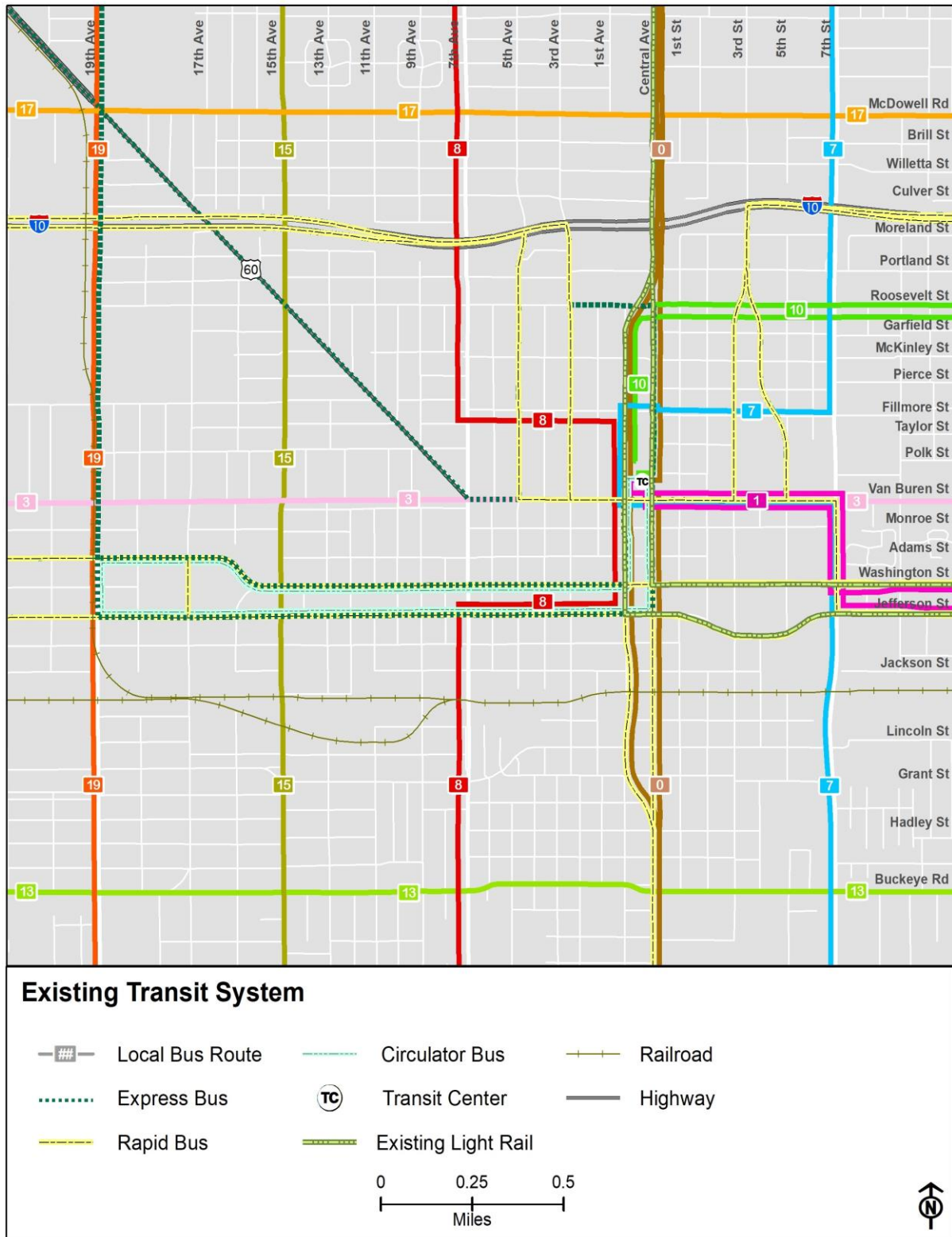
Transit services in Phoenix provide alternative mobility options for residents and commuters around the Valley. This section will discuss the existing transit system in the downtown area as well as the service additions and service changes that are planned to accommodate future developments, street improvements, and planned transit system expansions.

5.1 Existing Transit Services

PTD, in partnership with Valley Metro, provides fixed route transit services in the downtown area and throughout the Phoenix metropolitan area. The fixed route bus transit system in Phoenix comprises approximately 138 local bus routes, 32 express routes, and 12 RAPID routes, which also serve Phoenix's neighboring cities. The 28.2-mile LRT system runs through Central Phoenix, North Phoenix, and eastward, connecting to Tempe and Mesa. The Central Station transit center, located in the heart of the downtown area, serves as the connection point for several fixed route services (i.e., local bus, express bus, RAPID bus, and DASH), has LRT stations on either side of it, and incorporates other multimodal amenities such as bike racks and lockers. The DASH neighborhood circulator is also a part of the existing transit system and services the area between Central Station and the Arizona State Capitol Mall corridor. **Figure 9** shows the existing fixed routes, park-and-ride lots, and transit centers located within the downtown area.



Figure 9: Existing Transit Service





5.2 Planned Infrastructure Changes

Table 2 lists transit infrastructure changes that are in the planning or design phase and are programmed for inclusion in the current transit system. **Figure 10** illustrates the planned transit services.

Table 2: Planned Infrastructure Changes

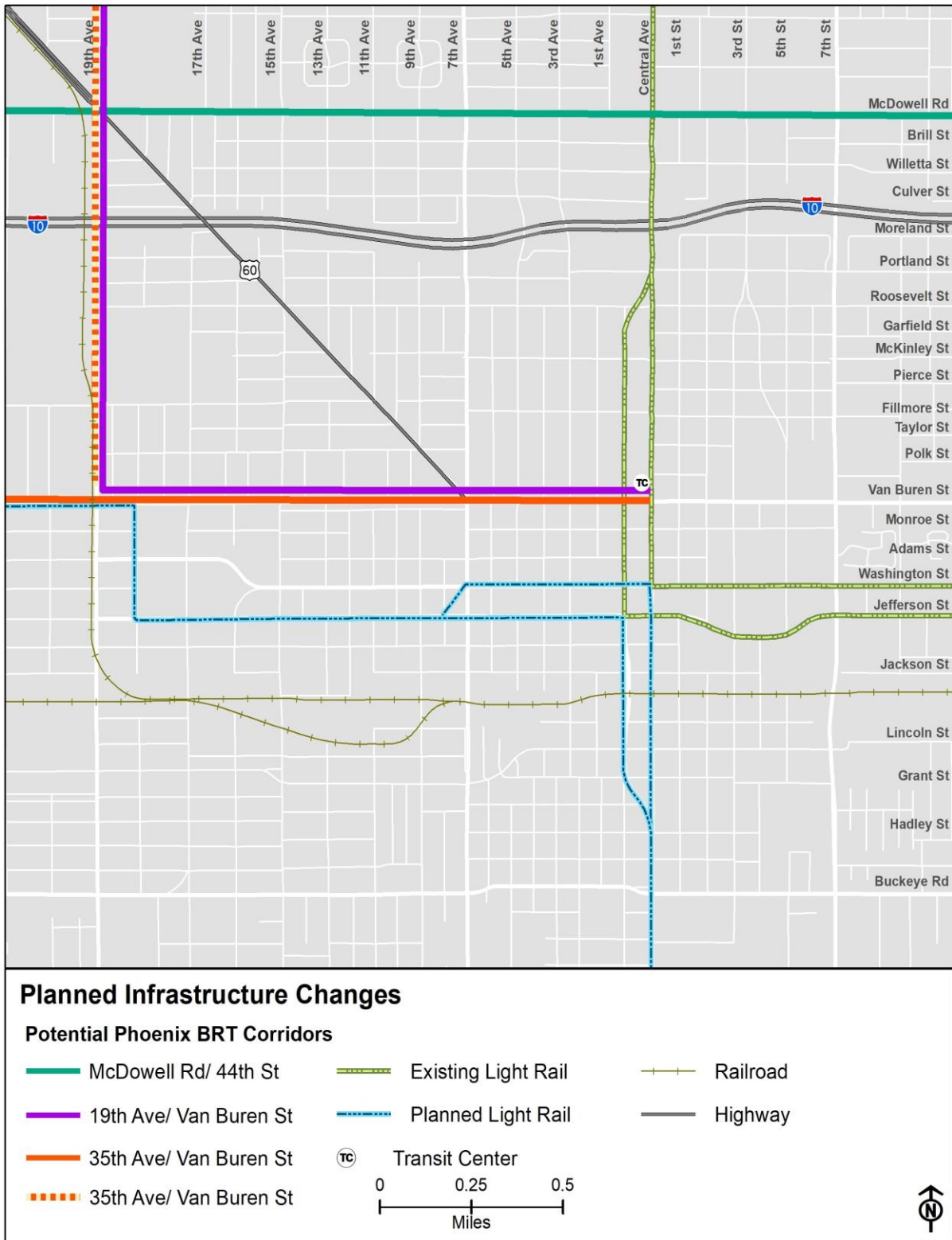
Name	Status	Location	Project Type	Agencies
<p>Central Station</p>	<p>Pre-Development – Currently undergoing asset inventory, with groundbreaking set for 2021.</p> <p>The current Phoenix Central Station is bordered by LRT routes on its east and west sides and is the stopping point for several local and Express/RAPID bus routes. The new development will consist of two individual towers connected at the ground level for the PTD offices. This project is still in the early phases of development; therefore, transit service circulation and/or enhancements at the station are unknown at this time.</p>	<p>300 N. Central Ave.</p>	<p>Transit Center</p>	<p>Valley Metro Federal Transit Authority (FTA) PTD</p>
<p>Capitol/ I-10 West</p>	<p>Evaluating public and stakeholder input and technical analysis to develop a Phase I route recommendation for presentation to the Phoenix City Council in late summer/early fall 2020.</p> <p>The 10-mile Capitol/I-10 West LRT extension will connect with the existing Valley Metro LRT system in the downtown area to the 79th Ave. Park-and-Ride. Corridors are under assessment for high capacity transit (HCT) options, to connect riders from the current LRT system to the state Capitol and West Valley. Following approval of the EA, Valley Metro and the COP will be eligible to compete for federal funding.</p>	<p>Jefferson St. & Van Buren St.</p>	<p>LRT Extension</p>	<p>Valley Metro FTA PTD</p>



Name	Status	Location	Project Type	Agencies
<p>Phoenix Bus Rapid Transit (BRT)</p>	<p>Pre-Development – Currently evaluating six potential corridors through community outreach.</p>	<p>McDowell/ 44th St. 35th Ave./ Van Buren St. 19th Ave./ Van Buren St.</p>	<p>BRT</p>	<p>Valley Metro FTA PTD</p>
<p>Three of six potential Phoenix BRT corridors are routed for travel through the downtown area. These routes have various alignments, with connections to transit centers, Phoenix Central Station, or Sky Harbor Airport. The 35th Ave. and 19th Ave. corridors both make connections through the heart of the downtown area. The McDowell alignment runs north of the downtown area. The Phoenix BRT project is in the preliminary stages of planning.</p>				
<p>South Central LRT</p>	<p>Development – Construction has started. Current activities are primarily underground utility installation.</p>	<p>Central Ave.</p>	<p>LRT Extension</p>	<p>Valley Metro FTA PTD</p>
<p>This five-mile extension will connect south Phoenix to the regional LRT system, extending from the downtown area to Baseline Rd. along Central Ave.</p>				



Figure 10: Planned Infrastructure Changes





5.3 Downtown Construction Rerouting Plan

During construction of Central Station, Capitol/I-10 West Phase I LRT extension, and South Central LRT extension, a few local bus routes and several express/RAPID bus routes will be rerouted. This will allow for continual service with minimal disruption by avoiding the heavy construction along Washington Street and Jefferson Street from Central Avenue to the State Capitol, and along Central Avenue from Van Buren Street to Baseline Road.

The affected routes are as follows:

- Local routes – 0, 8, and DASH
- Express routes – 514, 520, 521, 522, 531, 533, 535, 541, 542, 562, 563, 571, 573, 575, and the Glendale Avenue Limited (GAL)
- RAPID routes – I-10, 1-17, SR51, SME, and SMW

Appendix A provides additional detail on the rerouting plan in the form of **Table A1**, which details the alignment of each planned routing change, and **Figures A1, A2, and A3**, which depict the routing changes in map format.



6 STREET IMPROVEMENTS

Table 3 inventories the planned and programmed street improvements listed in the Downtown Transportation Plan Update (DTPU). These projects include lane conversions, bike lanes, and raised medians that aim to improve safety, mobility, and multimodal capabilities.

Table 3: Street Improvements

Segment	Status	Project Details
7th Ave. Projects		
Roosevelt St. to Van Buren St.	Pending	Construct raised median with access control.
5th Ave. Projects		
McDowell Rd to Washington St.	Programmed	Convert roadway from a one-way street to a two-way street.
Van Buren St. to Washington St.	Programmed	Add SB bike lane.
3rd Ave. Projects		
McDowell Road to Washington St.	Programmed	Convert roadway from a one-way street to a two-way street.
Van Buren St. to Jefferson St.	Programmed	Add NB bike lane.
Jefferson St. to Grant St.	Programmed	Add bidirectional bike lanes.
Central Ave. Projects		
Washington St. to Jefferson St.	Programmed	Convert roadway to one bus-only lane and one NB travel lane (limited to delivery vehicles and parking structure access).
Union Pacific Railroad (UPRR) tracks to Jefferson St.	Programmed	Add NB bike lane.
Central Ave. and 1st Ave. Projects		
Jefferson St. to Madison St.	Programmed	The current roadway is two lanes. Future conversions include both lanes making a right turn at Jefferson St.
Madison St. to Buchanan St.	Programmed	The current roadway is three lanes. The programmed changes include a reduction to two lanes where one lane turns left at Madison St. and the other is a through/right-turn lane.



Segment	Status	Project Details
Buchanan St. to Lincoln St.	Programmed	The current roadway has two lanes that turn into three. The programmed changes include a total of four lanes, of which two will be through lanes, one will be a right-turn lane and one will become a frontage road for property access on the east side of the LRT.
Lincoln St. to Grant St.	Programmed	The current roadway includes four lanes. The future roadway will have three lanes. The lane east of the LRT at Grant St. will be a left-turn/crossover; an example can be found on NB Central Ave. at Fillmore St.
Grant St. to Hadley St.	Programmed	The current roadway changes from three lanes to two lanes. The future configuration will drop to two lanes for the length of the segment.
Hadley St. to Tonto St.	Programmed	The current roadway includes two NB lanes and two SB lanes. Future alignments include 1st Ave. merging with Central Ave. at Hadley St. South of Hadley St. there are two SB lanes and one NB lane.
1st St. Projects		
Fillmore St. to Jefferson St.	Seeking Funds	Convert roadway from a two-way street to a one-way street in conjunction with the Central Avenue lane conversions. Provide direct connections to/from Central Ave. south of Jefferson St. and north of Fillmore St.
3rd St. Projects		
Indian School Road to Garfield St.	Final Design – May 2020 Construction – Fall 2020	Create a multimodal corridor that will connect to various bike and pedestrian facilities through the downtown area, Oak St. and along the Grand Canal. To accomplish this, road diets and lane narrowing will be implemented to accommodate bike lanes, landscaping, upgraded traffic signals, and ADA measures.
Jefferson St. to Lincoln St.	Programmed	Convert roadway from a one-way street to a two-way street.
McDowell Road to Jefferson St.	Programmed	Add NB bike lane from Portland St. to McDowell Road and add SB bike lane for entire length of project.
Jefferson St. to Buckeye Road	Programmed	Add bidirectional bike lanes.
4th St. Projects		
Roosevelt St. to Fillmore St.	On Hold	Reduce roadway from three NB lanes to two NB lanes.
Roosevelt St. to Fillmore St.	Programmed	Add NB bike lane.



Segment	Status	Project Details
5th St. Projects		
Fillmore St. to Jefferson St.	On Hold	Convert from three NB lanes to two NB lanes and one SB lane.
Fillmore St. to Jefferson St.	Programmed	Add NB bike lane.
7th St. and UPRR Bridge Rehabilitation Project		
Lincoln St. to Jefferson St.	Construction – April 2020 to Fall 2020	Construction of the 7th St. Bridge began in April 2020, with nighttime road closures beginning May 2020. Reduced speeds are scheduled for the timespan of the project.
Roosevelt St. to Van Buren St.	On Hold	Construct raised median and modify I-10 EB on-ramp.
Roosevelt St. Projects		
Central Ave. to 7th St.	Complete	Improve streetscapes.
15th Ave. to 10th St.	Programmed	Add EB and WB sharrow lanes from 15th Ave. to Central Ave.
Washington St. Projects		
7th Ave. and Central Ave.	Programmed	Implement modifications to accommodate Capitol/I-10 West LRT extension.
7th Ave. to 7th St.	Programmed	Add WB sharrow lane.
Jefferson St. Projects		
7th Ave. to 1st Ave.	Programmed	Implement modifications to accommodate Capitol/I-10 West LRT extension.
7th Ave. to 7th St.	Programmed	Add EB sharrow lane.
Polk St. Projects		
7th Ave. to Central Ave.	Programmed	Enhance pedestrian facilities.
Adams St. Projects		
Central Ave. to 2nd St.	Programmed	Enhance pedestrian facilities.
Grant St. and Lincoln St. Projects		
15th Ave. to 7th St.	Programmed	Add bidirectional bike lanes.



7 POTENTIAL IMPACTS

This section identifies potential major impacts to transit operations, service quality, and infrastructure as a result of the previously discussed upcoming developments, street improvements, and transit service changes within the downtown area. To understand the potential impact locations, the above-listed developments and projects were grouped and mapped to identify Areas of Concern (AoC). The resulting detailed table and map itemize the impacts for each AoC and are provided in **Appendix B (Figure B1 and Table B1)**.

Increase in population and economic opportunities. As population growth and economic activity increase in the downtown area, the demand on transit services will continue to rise in kind, as shown in **Figures 2 and 5**. The scheduled developments, such as the Fillmore, Central Station, and the YMCA will further centralize residents and employment opportunities in the downtown area and surrounding neighborhoods. The increased activity and density will require the need for expedient, reliable, and diverse transit services that will be recommended in the next section.

Transit service disruptions due to new developments. Travel flow during the construction of new developments can be inhibited by deliveries, crane operations, and lane closures due to safety requirements. During the initial excavation for the X Phoenix building (found in **Table 1**), Monroe Street was completely closed between 2nd and 3rd Avenue, along with the two right lanes on 3rd Avenue, for safety reasons. This type of closure can inhibit pedestrian access, delay typical travel times, impact service efficiency and reliability, and result in higher levels of congestion. Transit stops near such construction areas may become difficult to access or may be temporarily relocated. **Table A1** identifies the transit service routes and bus stops impacted by the upcoming developments. There are no specific guidelines for mitigating transit disruptions during new development construction.

Development policies and ordinances relevant to transit. New development approval is subject to requests and requirements for construction on impacted right of way (ROW). PTD is responsible for reviewing the development plans from a transit perspective, and refers to the following relevant policies/ordinances for the permitting processes:

- [City of Phoenix Zoning Ordinances](#)
- [Chapter 12: Downtown Code](#)
- [Map of Zoning Overlays and Regulatory Plans](#)
- [Section 669 - Arts, Culture, and Small Business Overlay Districts and Map](#)
- [Downtown Phoenix Urban Form Project](#)

Developer requirements can include bus bay and bus stop pad replacement per city standard details if construction is impacting sidewalks. Additionally, PTD suggests recommendations to the developer to improve access to transit from the new development. For example, ease of walkability from the new development to transit requires accessible pathways, contrasting



pavement treatments, and tree or structure shading. In like manner, PTD suggests several other recommendations during plan approvals; however, developers are only encouraged, not required, to implement these recommendations.

Road closures during street improvements. Street improvements in the downtown area can cause partial or full road closures, impacting traffic movement. Partial closures can slow down general traffic movement, increasing transit travel time, and decreasing its efficiency and reliability. Full closures can impact the transit route, causing temporary service detours that limit or eliminate transit access to businesses and homes. Such impacts can be identified before road closures are applied, and necessary solutions should be implemented to mitigate the impacts. It is important that PTD coordinate with the COP Street Transportation Department to understand the upcoming street improvements and road closures. **Table 3** identifies the planned and programmed street improvements. For example, street improvements planned for 3rd Avenue and 5th Avenue are likely to close part of the roadway during construction and could cause higher levels of congestion and negatively impact travel times for Local Routes 3, 8, and 17.

Transit stop relocation due to service detours. Street improvements and transit infrastructure upgrades or additions, like the South-Central Extension/Downtown Transit Center, could temporarily reroute transit service and relocate bus stops. When temporary or permanent relocation occurs, the new stops will require adequate amenities and infrastructure to support ADA compliance. Similarly, navigation to new stop locations could be challenging for transit riders. It is important to plan for the relocation of bus stops and provide adequate notice and information to the transit users. Additional mitigation measures are described in the next section of this memo.

Impacts of new transit service on existing service. Planned transit service additions, especially HCT, will necessitate reassessment of current bus service efficacy. Planned LRT extensions will require reevaluation of local bus routes and the DASH Circulator. DASH's current route follows the planned Capitol/I-10 LRT extension and will result in a redundancy of transit service. Currently, many people experiencing homelessness use the free DASH service to access homeless shelters. If DASH service is discontinued along the current route and the service is reworked surrounding the planned extension in the downtown area, it will be necessary to conduct a Title VI evaluation during the planning stage. In addition, reworking of the current transit services will need to consider the current ridership, shift of ridership to new transit services, and development trends in the downtown area. Recommended solutions for these impacts are discussed in the next section.

Existing transit service disruptions. Disruptions can be caused by rerouted bus service using stops allocated for existing bus routes. This could result in multiple buses queuing at stops and reducing access at bus bays, thereby causing schedule delays. Transit service delays could also occur due to the addition of transit service to an existing roadway capacity, which could lead to traffic congestion during peak hours. Thus, bus rerouting needs to be planned considering the existing capacity of the transit infrastructure and roadway network.



Transit service disruptions can also be caused by changing the permitted movements on roadways (e.g., changing a two-way street to a one-way street). This will necessitate changes to existing transit circulation. Solutions for these impacts are discussed further in the next section.

Microtransit inclusions. Microtransit, incorporated as first-/last-mile connections, is evolving as an integral part of the transit network. E-scooter and bicycle program accommodations around transit stops and stations can be physically secured to locations or exist as floating units. As the transit system changes, city partnerships with bike and e-scooter services may become unbalanced throughout the downtown area. Neighborhood circulator service routes may also be altered as business and residential developments change population and employment clusters within the downtown area. Microtransit considerations are necessary to maintain and expand connections during development of transit, streets, and buildings in the downtown area.

Curbside management. The management of curb space is essential for multiple modes of transit, private vehicles, TNCs, and delivery vehicles to conduct operations. Curbside access is required for on-street parking, businesses being serviced, and dwell times for loading and unloading of passengers. Safe and strategic access for new first-/last-mile services like bicycles and e-scooters is important as well. Increasing interaction between these modes and operations may result in challenges related to access and on-street parking requirements. Policy and criteria guideline solutions may become crucial to minimize conflicts and promote access management and are discussed in the next section.



8 SOLUTIONS PLANNING

This section discusses solutions that respond to the potential impacts of new developments, street improvements, and transit service changes in the downtown area. The solutions are divided into four distinct actionable categories: Neighborhood Circulation, Transit Supportive Improvements, Technology, and Transit Guidelines and Policies to make the most of the opportunities presented by impending population and economic growth. This growth will attract additional professionals, students, and businesses to the downtown area. The solutions discussed below can be applied in combination or individually as proactive responses to emerging dynamics in the downtown area.

8.1 Neighborhood Circulation

Neighborhood circulation is a key component for supporting residents and employees with connections to home, work, and leisure. During the impending period of transformation in Downtown Phoenix via the previously discussed upcoming developments, street improvements, and transit service changes, neighborhood circulation will need to be at the forefront of mitigative actions. This service could be facilitated by route-based circulators, and multimodal supportive infrastructure, as discussed in The State of Practice Memorandum.

Route-Based Circulators. This type of circulator has the ability to operate consistently and flexibly. Currently, the DASH circulator service serving the state Capitol corridor travels along a fixed route. Further deployment of similar service would connect residences with entertainment, retail, government, and employment opportunities throughout the downtown area. Recent innovations in route-based circulation include the option to change to flexible routes where riders can request a drop-off at designated or non-designated stops on the route or request a deviated drop-off within a buffer of the route.

Micromobility/Active Transportation. This service can be provided through bicycle and e-scooter programs. The increased density of development could support the first-/last-mile connections made possible by these modes. The 3rd Avenue and 5th Avenue Street improvements (found in **Table 3**) add facilities and ROW allocations to support multimodal safety and equity. The street improvements to support these modes increase the viability of transit by creating a comprehensive system of mobility.

Efficiency of Circulation in the Downtown Area. Efficient movement requires continual adaptation to new fixed-guideway HCT services such as LRT and BRT as they are incorporated into the system. As the programmed transit service changes are implemented, the need for underlying service routes may be reduced. A reevaluation of routes should be conducted, with options ranging in the full suite of route-based service options. The decision-making process can be informed with pilot programs for different circulator types and public outreach to understand favored service types. The removal of certain routes from the network will need to consider current ridership demographics, and equitable transit services for Title VI populations will need to be maintained.



Circulation mechanisms should be implemented throughout the downtown area as a proactive response to growth. Local route-based services pass through the downtown area, making connections to border cities, but do not currently service the immediate population sufficiently. Priority areas should be identified and monitored for how new developments could increase transit and multimodal needs. These needs could then be channeled into neighborhood transit services. These programmatic options could increase the efficiency of circulation in the downtown area and circumvent future transit access challenges.

8.2 Transit-Supportive Improvements

The impacts of development, street improvements, and transit service changes on the downtown area will affect travel patterns and transit needs for riders. The current downtown area transit network includes LRT, BRT, local bus routes, express/RAPID routes, and route-based circulators that are all likely to experience some level of service disruption during construction activities. Below are recommendations that could aid in the thoughtful management of the existing and planned transit system during this growth period for the downtown area.

Wayfinding Signage. Informational signage could provide clear directions for the changing landscape of the downtown area. With new developments, street improvements, and transit service changes consistently occurring, the ability of transit riders to find stops and stations, and maintain safe access to service, could be reduced. Advanced notification of service changes should be clearly visible at stops and stations along affected transit service lines and via transit service websites and applications. During service disruptions, temporary signage should be used to provide clear directions to rerouted lines, relocated stops, and/or service access points.

Curbside Management. Curbside management is an organizational approach to the physical distribution of space where vehicle types converge. The increased demand on curb space is a continual challenge in the downtown area. Personal vehicles, buses, TNCs, and delivery trucks all compete for space when operating in the crowded streets of Phoenix. The curb is a collaborative zone where most vehicle types require some level of access. To ensure that all vehicle types have curbside access, signage and roadway design can be used in the following ways:

- Signage:
 - To establish loading/no-loading zones for delivery trucks and TNCs
 - To identify parking/no-parking areas with penalty information available
 - To establish time of day access where appropriate
- Roadway Design:
 - To include bus-only lanes where space is available
 - To add bike lanes where space is available
 - To add pavement markings to further identify loading zones and on-street parking areas



Development in the downtown area will stem from large private and public investments. For the public sector, the LRT corridors and planned BRT routes will impact multimodal options and awareness, requiring proactive notification, wayfinding, and curbside management. Multiple high-tech companies are present in the region and any progress in design of new services or roadways should account for new service opportunities. The private sector will seek to leverage public investments and can support transit and transportation advancements through partnerships.

8.3 Technology

Technology integration into transit services is changing ridership expectations and administration capabilities. The emergence of mobile phone internet access has enabled GPS location for remote ride hailing and mobile access to service information, like maps and schedules. In the macro-transportation sector, autonomous and connected vehicles are now being tested with success in suitable urban environments and conditions.

Mobility-as-a-Service (MaaS). MaaS refers to online access to transit information and services hosted by system administrators. The platform is instituted as an application accessible by smartphone or online where riders can map a trip, purchase passes or tickets, provide feedback, and receive route notifications. Some service providers have integrated carpool sourcing, discounts, guaranteed ride home programs, and partnerships with TNCs into the program. MaaS can enable more efficient route-based services with real-time arrival and reservation services. The incorporation of MaaS into the transit agency portfolio empowers systemwide access, performance measurement, and intelligent transit service administration.

Data collection and informed decisions made possible by MaaS can provide essential data to support meeting ridership expectations and needs. The recurring trips hailed for circulators or TNC partnerships through MaaS applications can aid the reevaluation process for existing transit services and help ensure viability of future routes. Consumer feedback also provides access to real-time information about the reliability and safety of services.

Equitable application of MaaS necessitates equal access to services being provided online or by phone. By implementing MaaS across digital barriers, equal opportunities to enjoy and utilize these services are established. Some transit services could go a step further and provide registrations for recurring trips.

Notifications of transit service changes are made possible when users download and enable MaaS on smartphones. This could increase the access to, and timely dissemination of, any service changes, including delays, upcoming reroutes, or projected congestion due to construction. Temporary reroutes, incident reporting, schedule changes, and service updates can all be channeled through a simple-to-use and intuitive platform.

Autonomous Vehicles/Connected Vehicles. Technologically advanced vehicles are being introduced to transportation and transit systems nationwide. A pilot project highlighting the economic progression and research and development portfolio of Phoenix is a significant opportunity. Predetermined and dedicated space for these potential projects should be



incorporated in roadway design concepts. Concepts could include dedicated ROW or adaptable spaces such as bike lanes or curb zones, with features suitable for the safe operation of autonomous and connected vehicles. With safe speeds, lower traffic volumes and an optimal grid network, the downtown area could house the ridership and space needed for advanced innovations. This type of project could showcase both the collaboration and project coordination expertise at the COP.

8.4 Transit Guidelines and Policies

Transit guidelines are used to inform and supplement existing policies, regulations and plans. The design of policy documents can house details and binding information related to the transit agency's approach to promoting transit-oriented communities. Transit-oriented communities are those that make supportive decisions with regulations, set expectations through policy for the timeline requirements and recommendations on construction, and facilitate a consistent and reliable system-wide service. The guidelines promote a positive experience for riders and adequate measures for enforcement on their behalf. A Title VI population outreach and service program can be incorporated into the document. The guidelines and policies listed below should be compiled into a readily available document that can serve as best practices for developers, stakeholders, and transit agencies in promoting the highest level of service.

New Development Construction. Construction of new developments and street improvements are the primary challenges affecting transit services. Standard guidelines for developer interaction with transit stations, stops, or access should be included in a guideline document. Coordination of temporary impacts to access and stop relocations must be accounted for in advance, with online notifications, posting of upcoming changes for riders, wayfinding signage and ADA-compliant access. Pedestrian and bicycle access for transit connections should be ensured through safe widths on sidewalks and sufficient timing at intersection crossings. Ensuring clear visibility and proper signage on downtown-area roads benefits passengers and roadway users. Standard timelines for communication with developers is needed for construction of both developments and street improvements, to ensure route reliability and public safety. Additionally, processes need to be adopted for transit department site plan review and approval before site plans are submitted or approved for permits. Through coordinated approval of plans, the agency can preserve transit interests and enable beneficial planning for the private and public sectors. For example, providing a shade tree as an amenity at a bus station could simultaneously improve the entry to a building and improve the transit ridership experience.

Design and maintenance of bus stations can also be used to incentivize a branded transit network, displaying a well programmed and funded system. The system representation is continuously shown by the level of investment in stations and stops. By developing standards with several design concepts approved for level of ridership, a consistent brand and stop can be paired with street improvements or developments.

Title VI Policy. Title VI populations must have equitable services as the transit service network changes and grows.



Transit Oriented Development. Transit-oriented communities could increase the viability of neighborhood transit connections, driving demand for intuitive and flexible services. Guidelines for features and applications could include “bus only” marking standards, yellow paint striping to indicate lane purpose or curbside space purposes, signage with messages to share the roadway, and site planning principles that create connections between land uses and transit stops or amenities. Transit guidelines can describe incentives and principles for leveraging transit-oriented development, benefiting the immediate economies with multi-family housing, shopping and activity driven by high rates of people transference.

Curbside Management. Guidelines for new developments and street improvements along transit routes would further cement the recommendations discussed in the previous section for current curbside issues. These guidelines should be centered around ROW allocations for access to services, safety of mode choices, and organization of public spaces. This can be done with regulatory details and signage, highlighting prescribed uses of space within the ROW. Uses can include bike lanes, bus-only lanes, parking allowances/restrictions, designated loading zones, time of day access allocations, and dwell time restrictions.

Reliability of Service. Reliability of transit systems is based on modeled service headway timing, space at stops, and creating a consistent and intuitive system for riders. Potential service delays due to construction or changes in service should be remedied in advance to minimize the impact on ridership. Methods that could be employed are:

- Staggering bus schedules when reroutes merge bus stops from other lines
- Clearly labeling temporary bus stop relocations in advance of service changes
- Increasing service frequencies on adjacent transit lines when decommissioning other transit services in the area, whether temporary or permanent



9 CONCLUSION

Population and employment growth in and around Phoenix are driving the need to invest in new and expanded development. This development will, in turn, necessitate street improvements to accommodate the changing landscape and added traffic. Changes and additions to transit services will also be necessary to meet new and shifting ridership demands. The changing dynamics of downtown Phoenix are likely to result in impacts to transit services and ridership, such as those described in **Section 7** of this memo. Managing these impacts will require proactive mitigation.

As urbanization of the downtown area is projected to continue, careful consideration of the associated challenges is paramount. It is critical to keep the transit system running efficiently and, at a minimum, maintain the current level of service riders have come to rely on. The solutions recommended in **Section 8** of this memo provides strategies for limiting disruptions to the transit system as Phoenix continues to grow and expand.

New policies and guidelines will be at the forefront of preventing impacts to the transit system. They can shape transit considerations around new developments, provide guidance for minimizing transit disruptions, and keep transit users up to date on transit service changes. It is suggested that a Transit Guidelines and Policies document be created to assist developers, stakeholders, and PTD in building and navigating downtown Phoenix.



APPENDIX A: DOWNTOWN CONSTRUCTION REROUTING PLAN DETAILS

Table A1 lists the downtown construction rerouting plan proposed by PTD and Valley Metro for several local and RAPID/Express bus routes due to construction of the South-Central LRT extension and Central Station redevelopment. **Figures A1, A2, and A3** illustrate these transit service changes.

Table A1: Downtown Construction Rerouting Plan

Route	Alignment Change
Local Routes and Circulator	
8 North	This realignment diverts onto Adams St. to avoid construction on Jefferson St.
8 South	This realignment diverts onto Washington St., 5th Ave. and 7th Ave. to avoid construction on Jefferson St.
0 Route A	This realignment begins on Dobbins/Baseline Rd., turns northbound (NB) on Central Ave., turns eastbound (EB) on Jefferson St., turns NB on 5th St., turns westbound (WB) on Van Buren St. and ends at Central Ave. and Van Buren St. From this stop, the bus departs and travels WB on Van Buren St., turns southbound (SB) on 1st Ave. and circles back to Dobbins/Baseline Rd.
0 Route B	This realignment begins at the Sunnyslope Transit Center, travels SB on 1st Ave., turns EB on Van Buren St., turns NB on Central Ave. and stops at Central Ave. and Polk St. From this stop, the bus departs back to the Sunnyslope Transit Center.
DASH	This route is shortening to run west on Washington St. and east on Jefferson St. between the State Capital and 3rd Avenue. This will avoid construction along Central Avenue and for Central Station.
Express/RAPID AM Routing 1	
562, 563, 571, 573, and I-10W	This realignment diverts onto 1st Ave., turns WB on Van Buren St., turns SB on 5th Ave. and turns WB on Washington St.
Express/RAPID AM Routing 2	



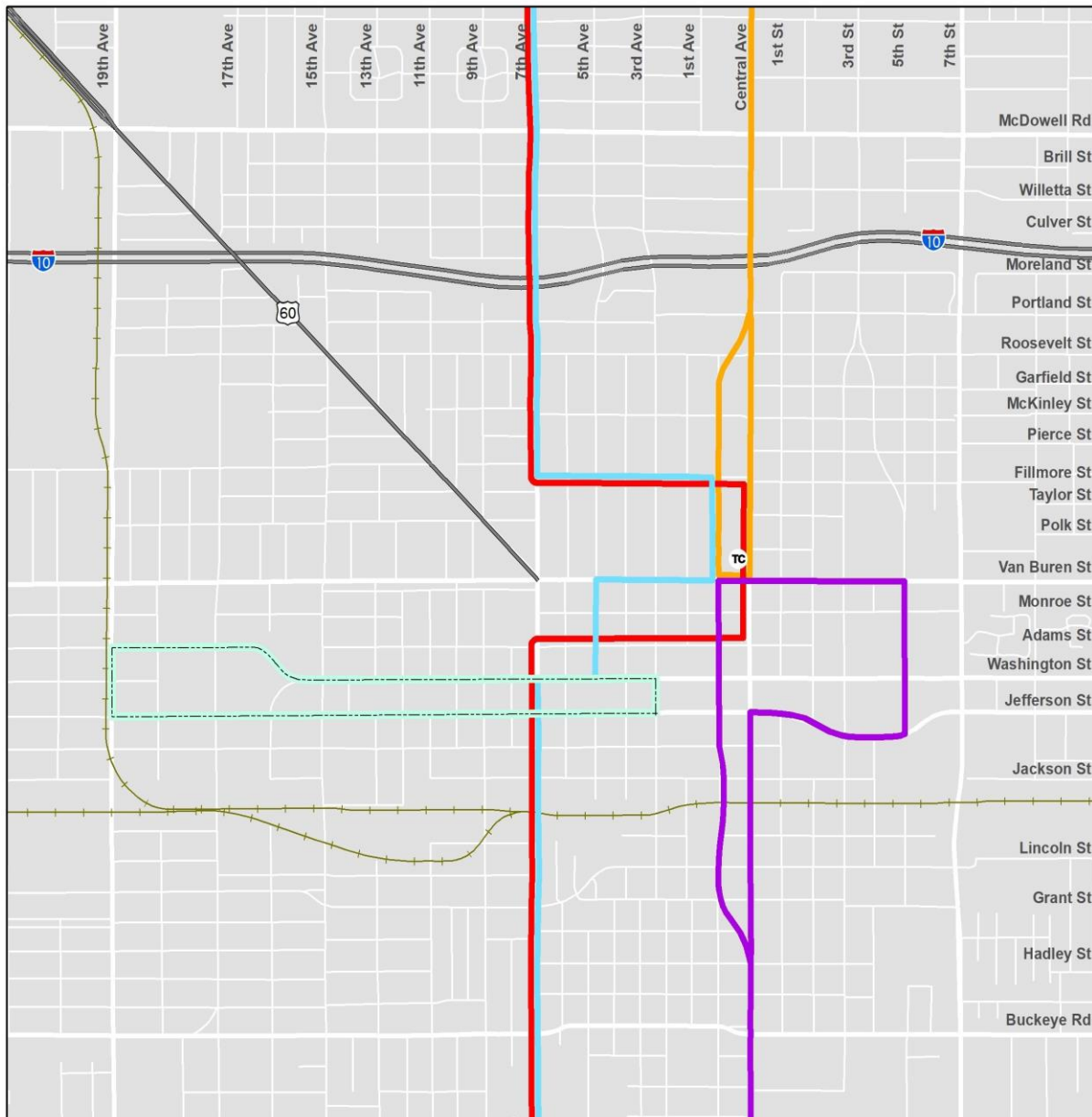
Route	Alignment Change
SME and SR51	This realignment diverts onto Van Buren St., turns SB on 5th Ave. and turns WB on Washington St.
Express/RAPID AM Routing 3	
514, 520, 521, 522, 531, 533, 535, 541, 542, and I-10E	This realignment diverts onto 3rd St., turns WB on Van Buren St., turns SB on 5th Ave. and turns WB on Washington St.
Express/RAPID AM Routing 4	
575, SMW, and GAL	This realignment diverts onto Jefferson St., turns NB on 7th Ave., turns EB on Adams St. and turns NB on Central Ave.
Express/RAPID AM Routing 5	
I-17	This realignment diverts onto Jefferson St., turns NB on 7th Ave., turns EB on Adams St., turns NB on Central Ave. and turns EB on Van Buren St.
Express/RAPID PM Routing 1	
SR51, I-10E, and 542	This realignment diverts onto Jefferson St., turns NB on 7th Ave., turns EB on Adams St., turns NB on Central Ave. and turns EB on Van Buren St.
Express/RAPID PM Routing 2	
I-10W and 563	This realignment diverts onto Jefferson St., turns NB on 7th Ave., turns EB on Adams St. and turns NB on Central Ave.
Express/RAPID PM Routing 3	
562, 571, and 573	This realignment diverts onto Jefferson St., turns EB on 7th Ave., turns EB on Van Buren St. and turns NB on Central Ave.
Express/RAPID PM Routing 4	
514, 520, 521, 522, 531, 533, 535, 541, and SME	This realignment diverts onto Jefferson St., turns NB on 7th Ave., turns EB on Adams St., turns NB on Central Ave. and turns EB on Van Buren St.
Express/RAPID PM Routing 5	
575 and SMW	This realignment diverts onto Van Buren St., turns SB on 5th Ave. and turns WB turn on Washington St.
Express/RAPID PM Routing 6	



Route	Alignment Change
I-17	This realignment diverts onto 3rd St., turns WB on Van Buren St., turns SB on 5th Ave. and turns WB on Washington St.
Express/RAPID PM Routing 7	
GAL	This realignment diverts onto 1st Ave., turns WB on Van Buren St., turns SB on 5th Ave. and turns WB on Washington St.



Figure A1: Local Routes/Circulator Rerouting Plan



Local Routes/Circulator Rerouting Plan

- 8 North
- 8 South
- 0 Route A
- 0 Route B
- - - DASH
- - - Railroad
- TC Transit Center
- Highway

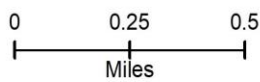




Figure A2: RAPID/Express Rerouting Plan – AM Routes

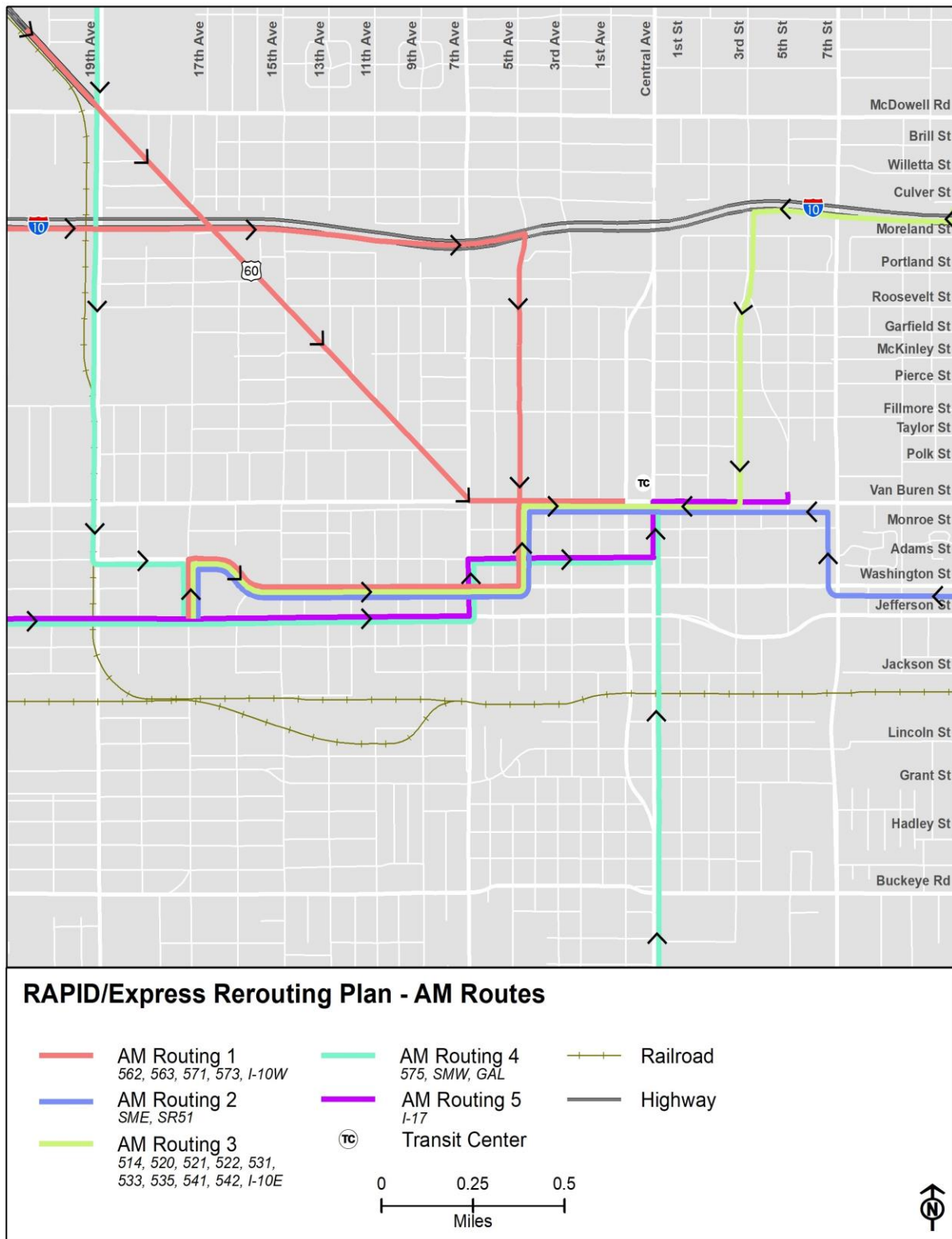
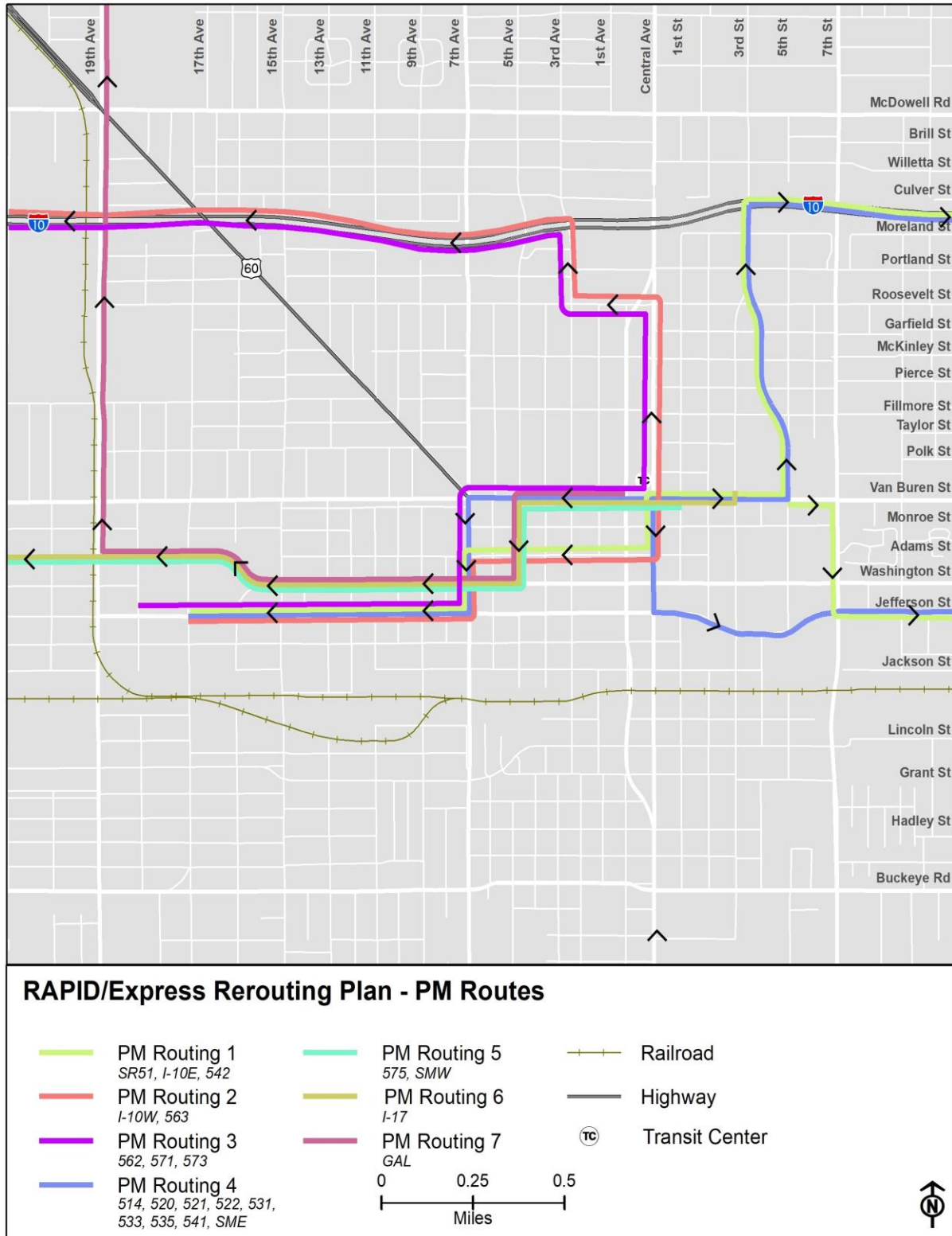




Figure A3: RAPID/Express Transit Service Changes – PM Routes





APPENDIX B: AREAS OF CONCERN

Table B1 highlights the Areas of Concern (AoC) identified for the downtown area and discusses the potential impacts that could occur due to the previously discussed developments, infrastructure improvements, and transit service changes. **Figure B1** illustrates the AoC locations.



Figure B1: Areas of Concern

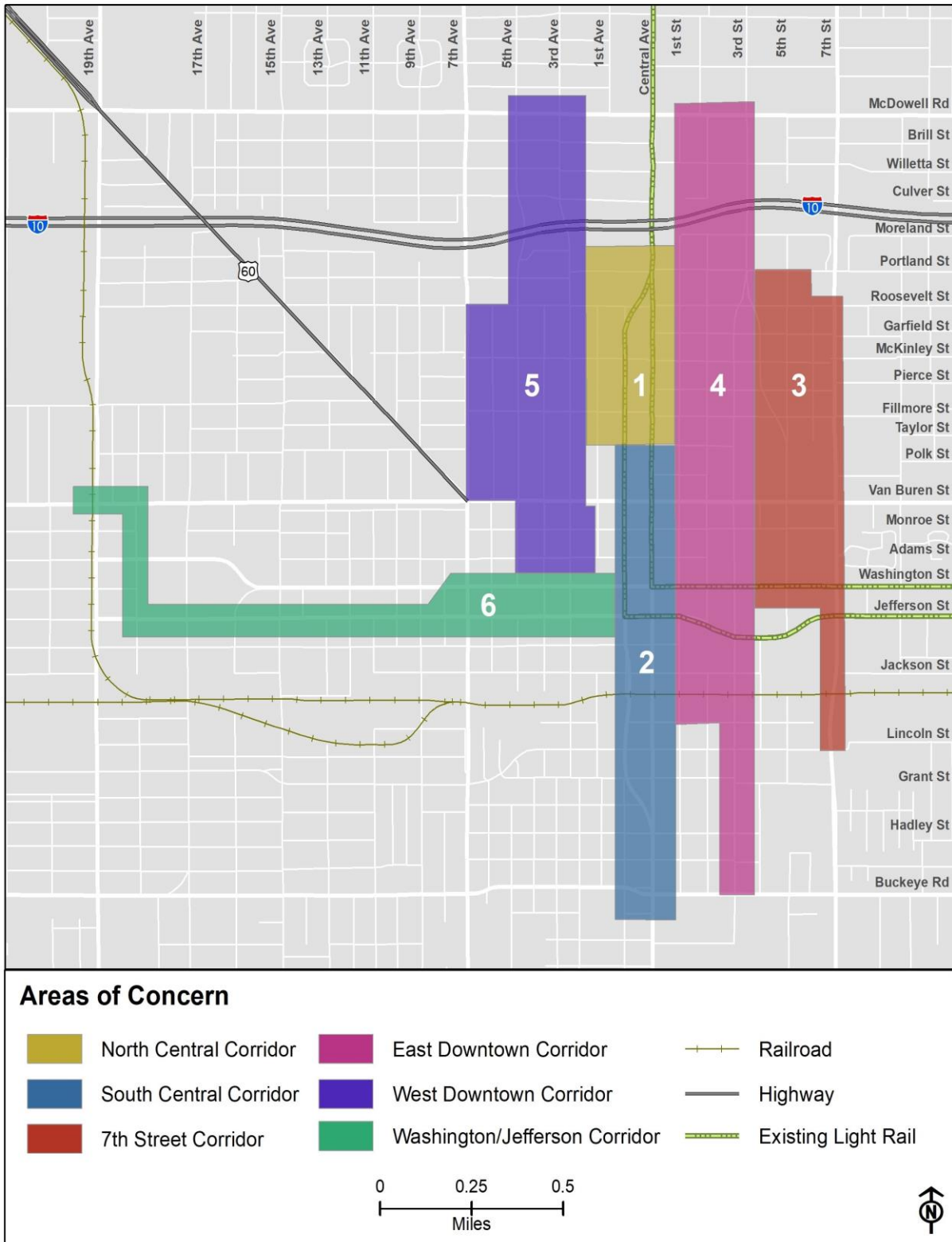




Table B1: Areas of Concern Downtown

Project Type	Name/Location	Impact to
1. North Central Corridor		
Developments	ASU - Parking Garage Portland on the Park II The Stewart Union at Roosevelt Urban Living on Fillmore McKinley Green Residence on Second Ave. 2nd and Fillmore Multifamily	<ul style="list-style-type: none"> Roads: Portland St., Roosevelt St., McKinley St., Fillmore St., Central Ave., 1st Ave. and 2nd Ave. Local Bus Routes: 0, 7, 8, and 10 Bus Stops: 10077, 10078, 10160, and 10496
<p>New developments will increase population and employment opportunities, potentially increasing the need for new and/or more frequent transit services. Construction at development locations could lead to lane closures or full roadway closures. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stop locations may become difficult for regular and new riders. Traffic changes and delays could also occur within construction zones.</p>		
Infrastructure Improvements	Roosevelt St. Project: 15th Ave. to 10th St.	<ul style="list-style-type: none"> Roads: Portland St., Roosevelt St., 2nd Ave., 1st Ave., Central Ave., and 1st St. Local/Express bus routes: 0, 10, 562, and 563 Bus Stops: 10079, 10158, 10783, and 10851
<p>Construction could limit access to homes and businesses for the length of projects. Road closure detours could cause heavier-than-usual traffic on adjacent roads. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stops may become difficult for current and new riders.</p>		



Project Type	Name/Location	Impact to
2. South Central Corridor		
Developments	ASU Downtown Campus Dorms Barrister Place Central Station Freeport McMoran Center Hampton Inn Urban Axes Kenect Phoenix Vintage 45	<ul style="list-style-type: none"> • Roads: Central Ave., 1st Ave. 1st St., Polk St., Van Buren St., Washington St., Jefferson St., and Lincoln St. • Local/Express Bus Stops: 0, 1, 3, 7, 8, 10, 514, 520, 521, 522, 531, 533, 535, 541, 542, 562, 563, 571, 573, 575, and GAL • RAPID Routes: I-10E, I-10W, I-17, and SR51 • Bus Stops: 10161, 10399, 10495, 10659, 10782, 16861, 16884, 18199, and 18367
<p>New developments will increase population and employment opportunities, potentially increasing the need for new and/or more frequent transit services. Construction at development locations could lead to lane closures or full roadway closures. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stop locations may become difficult for regular and new riders. Traffic changes and delays could also occur within construction zones.</p>		
Infrastructure Improvements	Central Ave. Projects: <ul style="list-style-type: none"> • Washington St. to Jefferson St. • UPRR tracks to Jefferson St. Central Ave. & 1st Ave. Projects: <ul style="list-style-type: none"> • Jefferson St. to Tonto St. Washington St. Projects: <ul style="list-style-type: none"> • 7th Ave. to Central Ave. • 7th Ave. to 7th St. Jefferson St. Projects: <ul style="list-style-type: none"> • 7th Ave. to 1st Ave. • 7th Ave. to 7th St. Adams St. Project: <ul style="list-style-type: none"> • Central Ave. to 2nd St. Grant St. and Lincoln St. Project: <ul style="list-style-type: none"> • 15th Ave. to 7th St. 	<ul style="list-style-type: none"> • All roadways within the corridor • All bus routes within the corridor • All bus stops within the corridor • DASH circulator
<p>Construction could limit access to homes and businesses for the length of the projects. Road closure detours could cause heavier-than-usual traffic on adjacent roads. Impacts to transit</p>		



Project Type	Name/Location	Impact to
<p>service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stops may become difficult for current and new riders.</p>		
<p>Planned Transit /Service Changes</p>	<p>Central Station South Central LRT Extension Routes: 0 Route A, 0 Route B, 8 North, and 8 South</p>	<ul style="list-style-type: none"> • All roadways within the corridor • All bus and LRT routes in the corridor • All bus stops within the corridor • DASH circulator
<p>LRT and Central Station construction could lead to lane closures or full roadway closures. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Extended LRT service could require reevaluation of local bus routes and stops. Planned reroutes (0 and 8) will require relocation of bus stops. Navigating to detoured or relocated stops may become difficult for current and new riders. Traffic changes and delays could also occur along new routes.</p>		
<p>3. 7th St. Corridor</p>		
<p>Developments</p>	<p>5th and Van Buren Apartments AC Hotel at Arizona Center Arizona Center ASU-Downtown Phoenix Biosciences Partnership Building Hampton Inn NAU Medical Campus Palm Court Tower Phoenix Biomedical Campus Roosevelt on 5th Roosevelt Row Apartments UA Health Services Education Building UA – Phoenix Campus</p>	<ul style="list-style-type: none"> • Roads: Van Buren St., Roosevelt St., Portland St., 4th St., 5th St., and 7th St. • Local/Express Bus Routes: 1, 3, 7, 514, 520, 521, 522, 531, 533, 535, 541, and 542 • RAPID Routes: I-10E and I-17 • Bus Stops: 10271 and 16873
<p>New developments will increase population and employment opportunities, potentially increasing the need for new and/or more frequent transit services. Construction at development locations could lead to lane or full roadway closures. Impact to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to new stop locations may become difficult for regular and new riders. Traffic changes and delays could also occur within construction zones.</p>		



Project Type	Name/Location	Impact to
Infrastructure Improvements	4th St. Project: <ul style="list-style-type: none"> Roosevelt St. to Fillmore St. 5th St. Project: <ul style="list-style-type: none"> Fillmore to Jefferson St. 7th St. & UPRR Bridge Rehabilitation project: <ul style="list-style-type: none"> Jefferson St. to Lincoln St. Roosevelt St. to Van Buren St. Roosevelt St. Project: <ul style="list-style-type: none"> Central to 7th St. Roosevelt St. Project: <ul style="list-style-type: none"> 15th Ave. to 10th St. Washington St. Project: <ul style="list-style-type: none"> 7th Ave. to 7th St. Jefferson St. Project: <ul style="list-style-type: none"> 7th Ave. to 7th St. Grant St. and Lincoln St. Project: <ul style="list-style-type: none"> 15th Ave. to 7th St. 	<ul style="list-style-type: none"> All roadways within the corridor All bus and LRT routes in the corridor All bus stops in the corridor

Construction could limit access to homes and businesses for the length of projects. Road closure detours could cause heavier than usual traffic on adjacent roads. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stops may become difficult for current and new riders.

Planned Transit/Service Changes	Route 0 Route A	<ul style="list-style-type: none"> Roads: Van Buren St., Monroe St., Washington St., 4th St., and 5th St. Local/Express bus routes: 1, 3, 7, 514, 520, 521, 522, 531, 533, 535, 541, 542, RAPID Routes: I-10E, I-17, and SR51 Bus Stops: 10214, 10271, and 16873
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Reroutes will require relocation of bus stops. Navigating to relocated stops may become difficult for current and new riders. Traffic changes and delays could also occur along new routes.



Project Type	Name/Location	Impact to
4. East Downtown Corridor		
Developments	Block 23 City Center on the Park En Hance Park Evans Churchill West The Josephine Knipe House Portrait at Hance Park Apartments Punch Bowl Special Residence at Collier Center Ro2 Scientific Technologies The Cambria Hotel The Churchill The Derby The Godfrey Hotel The Hyatt Regency Phoenix The Link Phx The Oscar Phoenix The Ryan The Sheraton Grand Phoenix UA Eller College of Management Willetta Apartment Homes	<ul style="list-style-type: none"> Roads: Willetta St., Culver St., Moreland, Portland St., Roosevelt St., Garfield St., McKinley St., Pierce St., Taylor St., Polk St., Monroe St., Adams St., Washington St., Jefferson St., 3rd St., 2nd St., and 1st St.
<p>New developments will increase population and employment opportunities, potentially increasing the need for new and/or more frequent transit services. Construction at development locations could lead to lane or full roadway closures. Traffic changes and delays could also occur within construction zones.</p>		



Project Type	Name/Location	Impact to
<p>Infrastructure Improvements</p>	<p>1st St. Project:</p> <ul style="list-style-type: none"> • Fillmore St. to Jefferson St. <p>3rd St. Projects:</p> <ul style="list-style-type: none"> • Indian School Rd. to Garfield St. • Jefferson St. to Lincoln St. • McDowell Rd. to Jefferson St. • Jefferson St. to Buckeye Rd. <p>Roosevelt St. Projects:</p> <ul style="list-style-type: none"> • Central Ave. to 7th St. • 15th Ave. to 10th St. <p>Washington St. Project:</p> <ul style="list-style-type: none"> • 7th Ave. to 7th St. <p>Jefferson St. Project:</p> <ul style="list-style-type: none"> • 7th Ave. to 7th St. <p>Adams St. Project:</p> <ul style="list-style-type: none"> • Central Ave. to 2nd St. <p>Grant St. and Lincoln St. Project:</p> <ul style="list-style-type: none"> • 15th Ave. to 7th St. 	<ul style="list-style-type: none"> • All roadways within the Corridor • All bus routes within the Corridor • All bus stops within the Corridor
<p>Construction could limit access to homes and businesses within the corridor. Road closure detours could cause heavier-than-usual traffic on adjacent roads. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stops may become difficult for current and new riders.</p>		
<p>Planned Transit/Service Changes</p>	<p>Route 0 Route A</p>	<ul style="list-style-type: none"> • Roads: Van Buren St., Washington St., 1st St., 2nd St., and 3rd St. • Local bus routes: 1, 3, and 7 • RAPID route: SR51 • Bus Stops: 10213 and 16866
<p>Reroutes will require relocation of bus stops. Navigating to relocated stops may become difficult for current and new riders. Traffic changes and delays could also occur along new routes.</p>		



Project Type	Name/Location	Impact to
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5. West Downtown Corridor

Developments	<ul style="list-style-type: none"> Aspire - Duo on Fillmore Astra EcoPHX McKinley Row The Fillmore The McKinley The Van Buren X Phoenix 	<ul style="list-style-type: none"> Roads: Fillmore St., Monroe St., Van Buren St., McKinley St., Roosevelt St., 2nd Ave., 3rd Ave., and 4th Ave. Local/Express bus routes: 3, 8, 562, 563, and 573 Bus Stops: 10340, 10734, and 10735
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New developments will increase population and employment opportunities, potentially increasing the need for new and/or more frequent transit services. Construction at development locations could lead to lane or full roadway closures. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stop locations may become difficult for regular and new riders. Traffic changes and delays could also occur within construction zones.

Infrastructure Improvements	<p>3rd Ave. Projects:</p> <ul style="list-style-type: none"> McDowell Rd. to Washington St. Van Buren St. to Jefferson St. <p>5th Ave. Projects:</p> <ul style="list-style-type: none"> McDowell Rd. to Washington St. Van Buren St. to Washington St. <p>7th Ave. Project:</p> <ul style="list-style-type: none"> Roosevelt St. to Van Buren St. <p>Roosevelt St. Project:</p> <ul style="list-style-type: none"> 15th Ave. to 10th St. <p>Polk St. Project:</p> <ul style="list-style-type: none"> 7th Ave. to Central Ave. 	<ul style="list-style-type: none"> All roadways within the corridor All bus routes within the corridor All bus stops within the corridor
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Construction could limit access to homes and businesses for the length of projects. Road closure detours could cause heavier-than-usual traffic on adjacent roads. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stops may become difficult for current and new riders.



Project Type	Name/Location	Impact to
Planned Transit/Service Changes	Routes: 8 South	<ul style="list-style-type: none"> • Roads: Van Buren St., Monroe St., Adams St., 3rd Ave., 4th Ave., and 5th Ave. • Local/Express bus routes: 3, 562, 563, and 573 • Bus Stops: 10340, 10400, and 10401
<p>Reroutes will require relocation of bus stops. Navigating to relocated stops may become difficult for current and new riders. Traffic changes and delays could also occur along new routes.</p>		
<p>6. Washington/Jefferson Corridor</p>		
Planned Transit/Service Changes	Capitol/-10 West Routes: 0 Route B, 8 North, 8 South	<ul style="list-style-type: none"> • All roadways within the corridor • All bus routes within the corridor • All bus stops within the corridor • DASH circulator
<p>LRT construction could lead to lane or full roadway closures. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Planned reroutes (0 and 8) will require relocation of bus stops. Navigating to detoured or relocated stops may become difficult for current and new riders. Traffic changes and delays could also occur along new routes.</p>		



Project Type	Name/Location	Impact to
Infrastructure Improvements	<p>3rd Ave. Projects:</p> <ul style="list-style-type: none"> • McDowell Rd. to Washington St. • Van Buren St. to Jefferson St. • Jefferson St. to Grant St. <p>5th Ave. Projects:</p> <ul style="list-style-type: none"> • McDowell Rd. to Washington St. • Van Buren St. to Washington St. <p>Washington St. Projects:</p> <ul style="list-style-type: none"> • 7th Ave. to Central Ave. • 7th Ave. to 7th St. <p>Jefferson St. Projects:</p> <ul style="list-style-type: none"> • 7th Ave. to 1st Ave. • 7th Ave. to 7th St. 	<ul style="list-style-type: none"> • All roadways within the corridor • All bus routes within the corridor • All bus stops within the corridor • DASH circulator

Construction could limit access to homes and businesses for the length of projects. Road closure detours could cause heavier-than-usual traffic on adjacent roads. Impacts to transit service routes and adjacent bus stops could cause temporary reroutes and stop relocations. Navigating to detoured stops may become difficult for current and new riders.