REGIONAL TRANSIT FRAMEWORK STUDY UPDATE
TECHNICAL WORKGROUP MEETING

May 18, 2017

AGENDA

1. Welcome and introductions
2. 2040 transit demand
3. Potential HCT corridors
4. Next steps
5. Preview of evaluation framework

REGIONAL TRANSIT FRAMEWORK
STUDY UPDATE
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FACTORS THAT INFLUENCE TRANSIT DEMAND

Population and employment density

Socioeconomic characteristics

- Vehicle ownership, income, physical ability, etc.

Activity centers

- Educational institutions
- Medical facilities
- Event venues

Land use / street network

HCT VERSUS FREQUENT TRANSIT

All HCT is frequent

But not all frequent transit is HCT

Starting point for identification of potential HCT corridors:

1. Which corridors warrant frequent service?
2. Which of those corridors warrants HCT?

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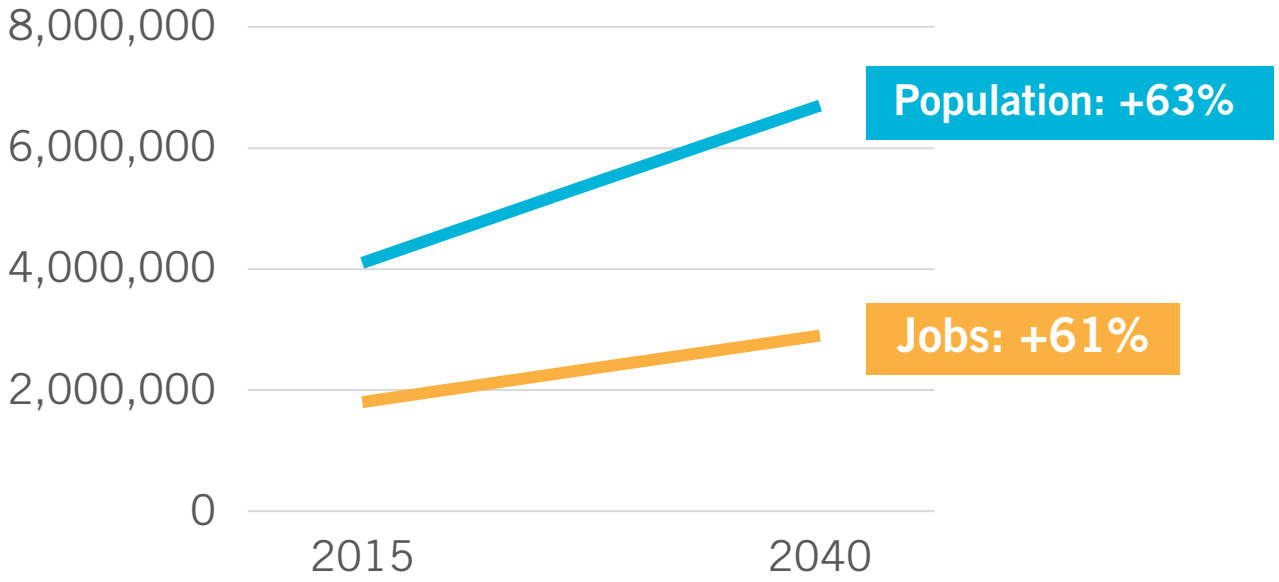
PROJECTED GROWTH THROUGH 2040

Population projected to grow by 63% from 4.1 to 6.7 million

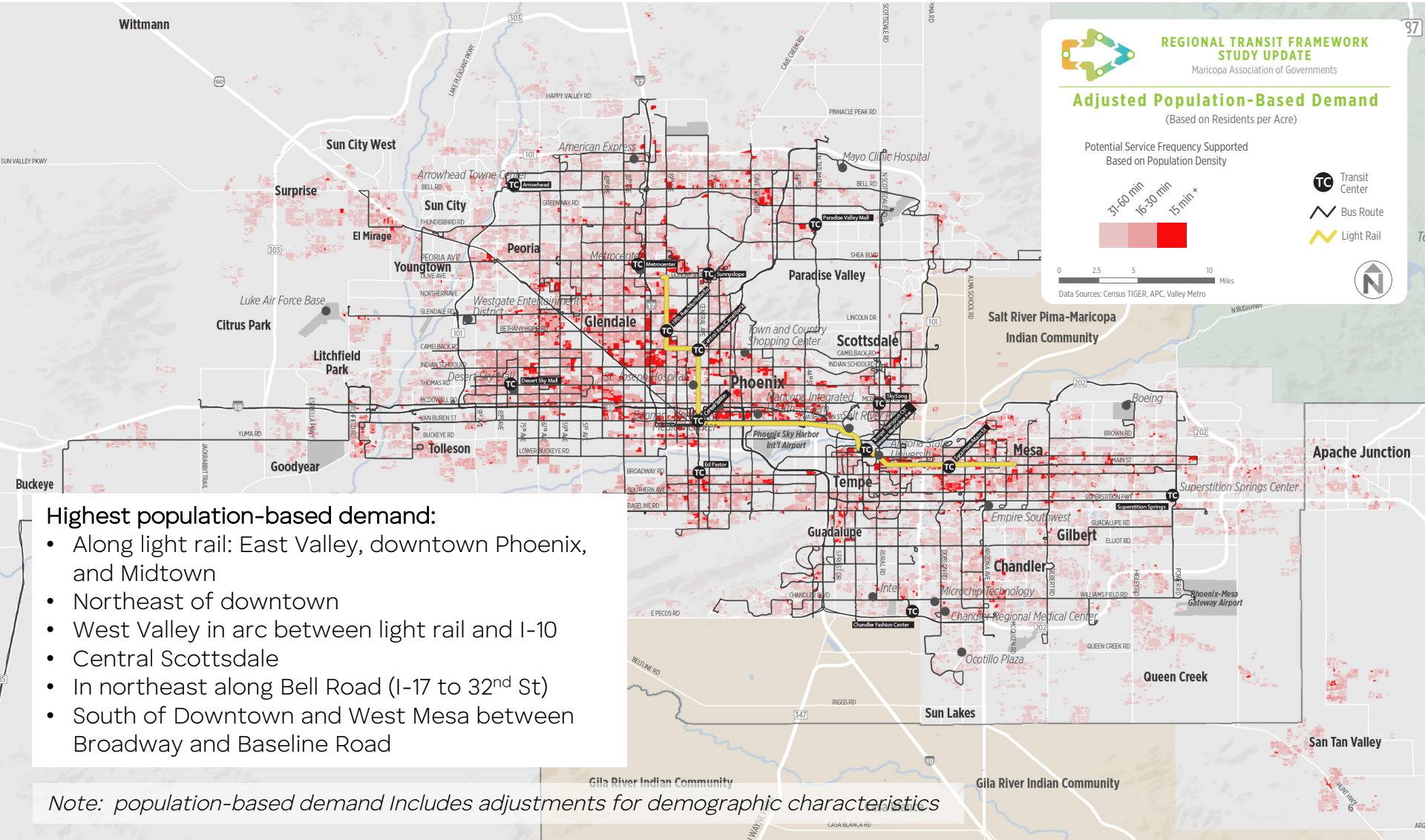
Employment by 61% from 1.8 to 2.9 million



While much growth will occur in outlying areas, highest demand for frequent service is and will continue to be within Loop 101 and Loop 202

POPULATION-BASED TRANSIT DEMAND

2015



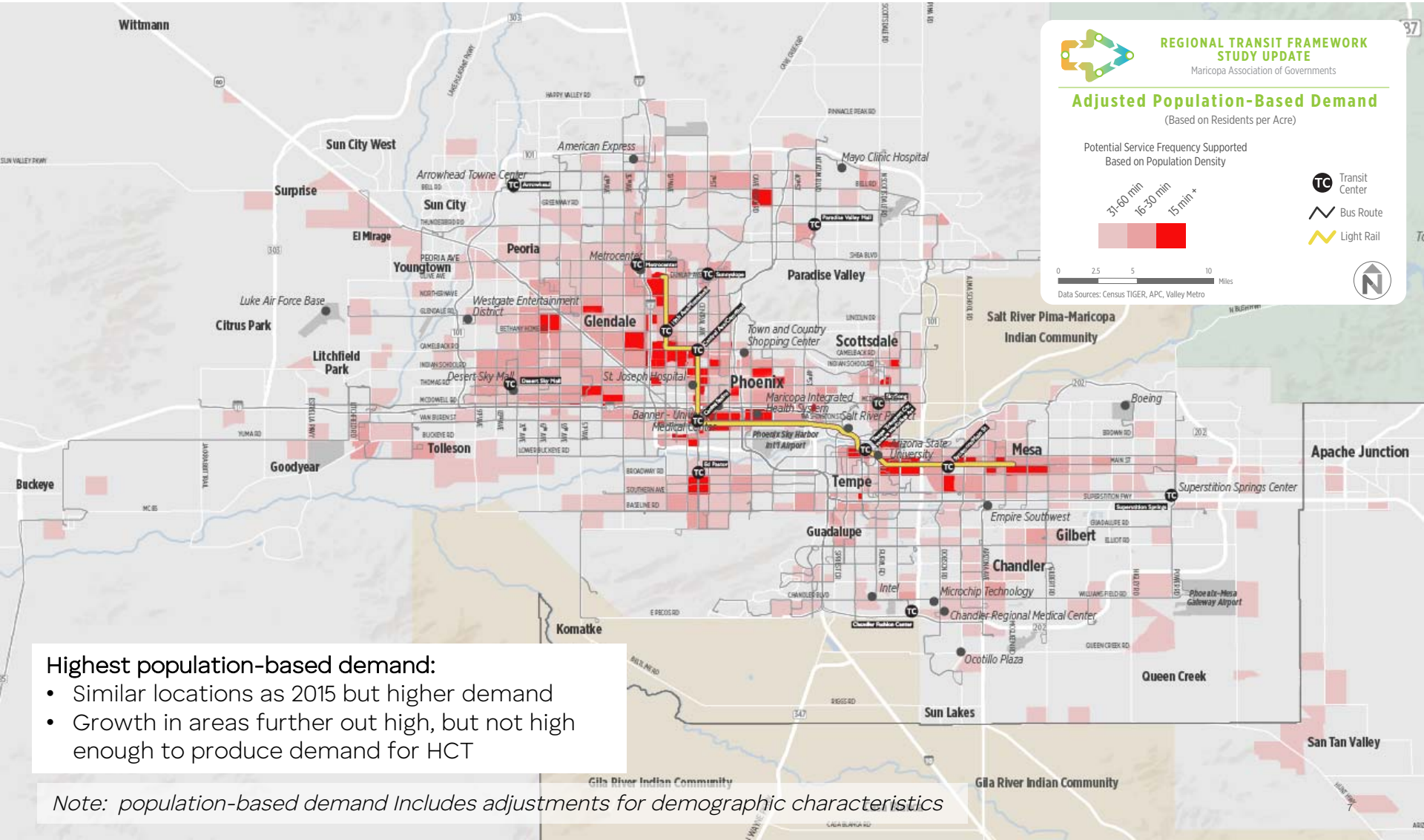
Highest population-based demand:

- Along light rail: East Valley, downtown Phoenix, and Midtown
- Northeast of downtown
- West Valley in arc between light rail and I-10
- Central Scottsdale
- In northeast along Bell Road (I-17 to 32nd St)
- South of Downtown and West Mesa between Broadway and Baseline Road

Note: population-based demand Includes adjustments for demographic characteristics

POPULATION-BASED TRANSIT DEMAND

2040: Similar locations as 2015 but higher demand



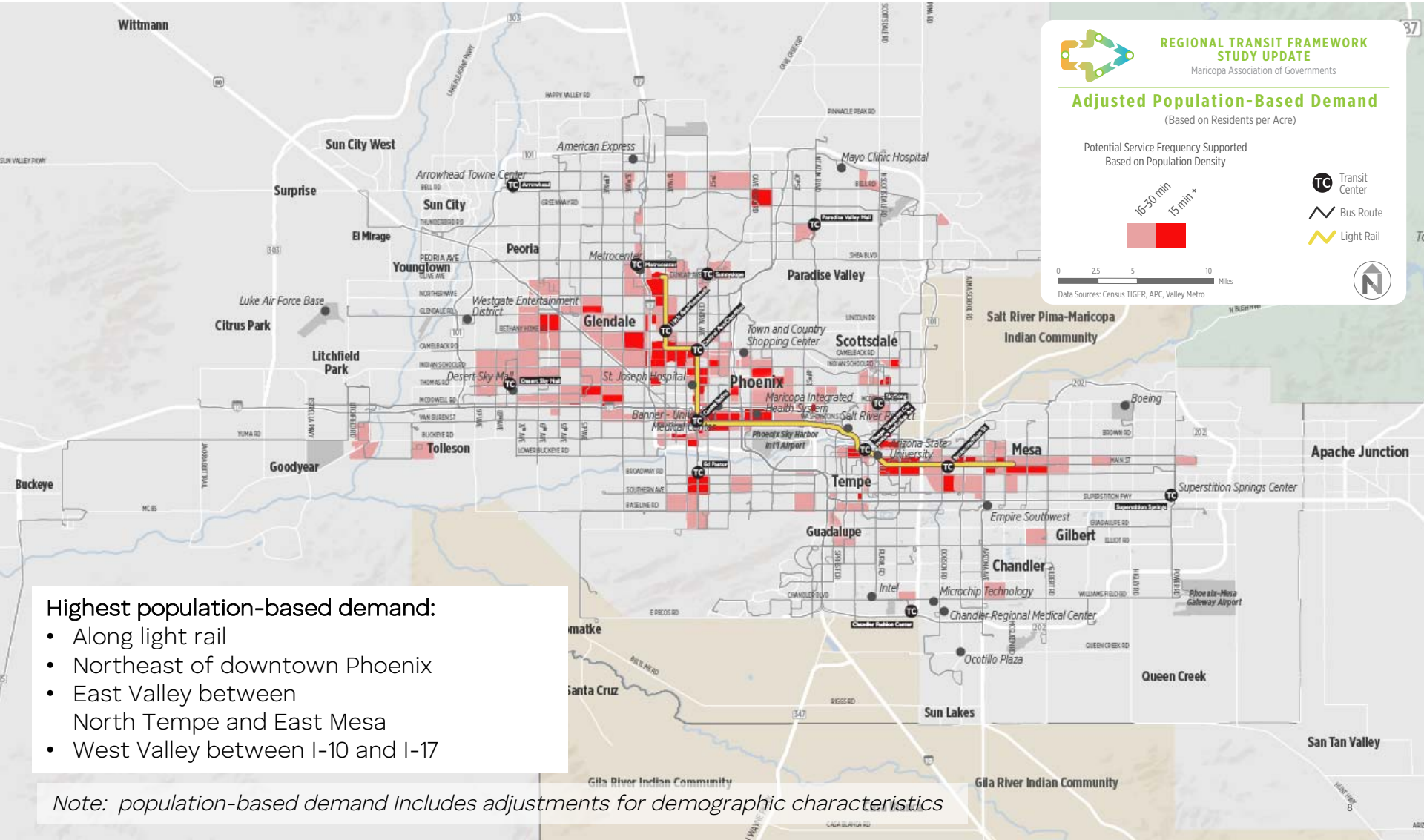
Highest population-based demand:

- Similar locations as 2015 but higher demand
- Growth in areas further out high, but not high enough to produce demand for HCT

Note: population-based demand Includes adjustments for demographic characteristics

POP-BASED DEMAND FOR FREQUENT SERVICE

2040: High demand, especially along LRT and West Valley



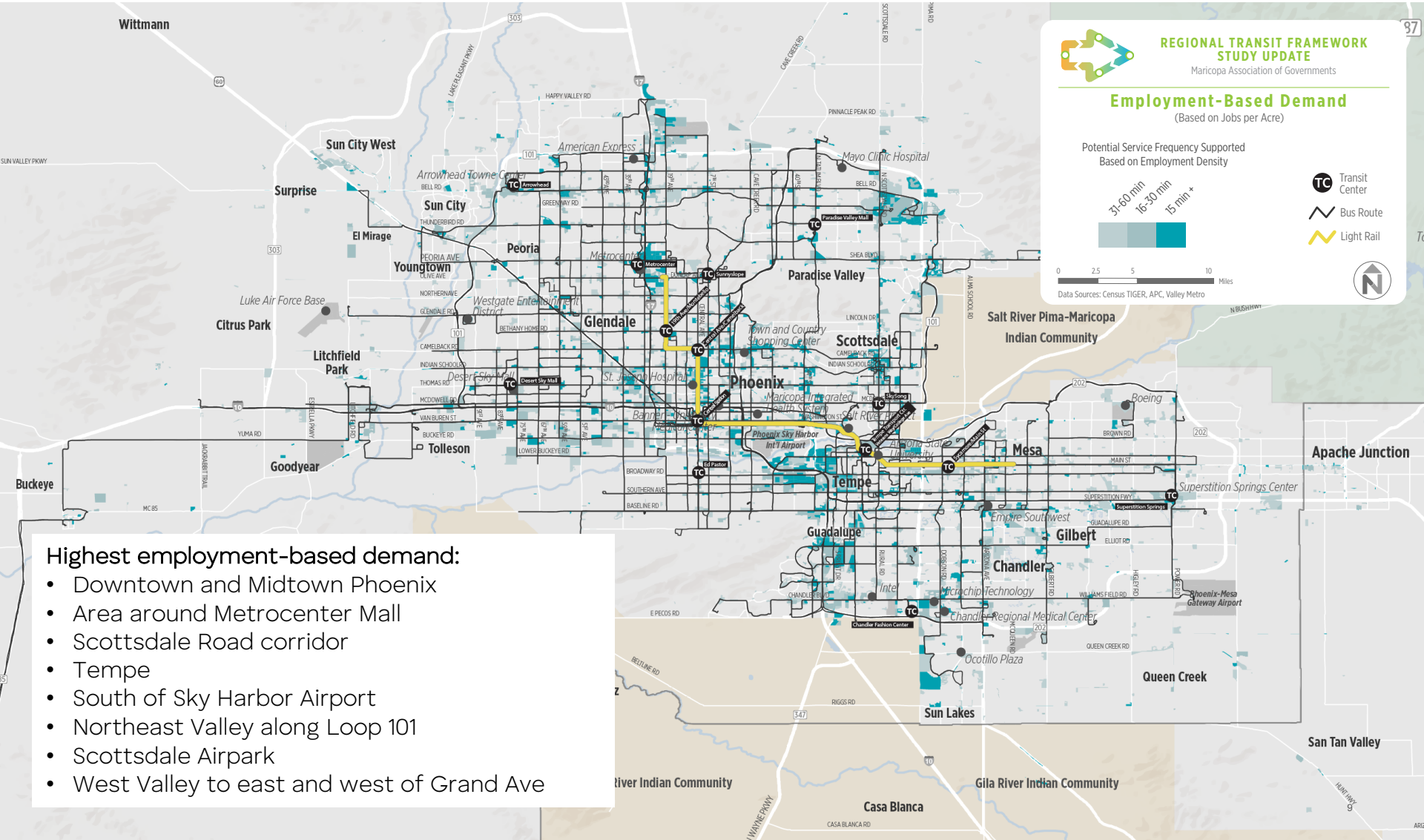
Highest population-based demand:

- Along light rail
- Northeast of downtown Phoenix
- East Valley between North Tempe and East Mesa
- West Valley between I-10 and I-17

Note: population-based demand Includes adjustments for demographic characteristics

EMPLOYMENT-BASED TRANSIT DEMAND

2015

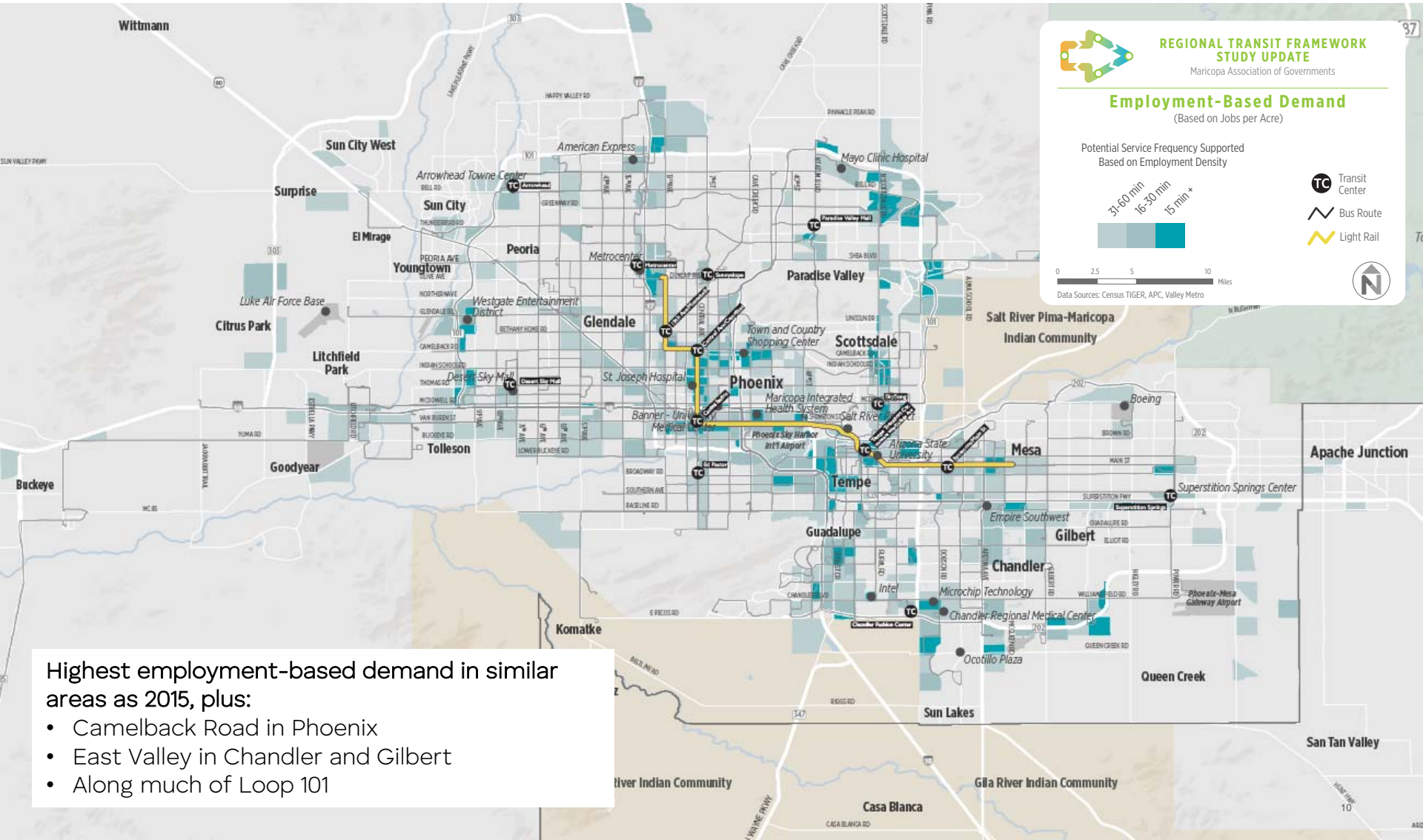


Highest employment-based demand:

- Downtown and Midtown Phoenix
- Area around Metrocenter Mall
- Scottsdale Road corridor
- Tempe
- South of Sky Harbor Airport
- Northeast Valley along Loop 101
- Scottsdale Airpark
- West Valley to east and west of Grand Ave

EMPLOYMENT-BASED TRANSIT DEMAND

2040: Similar locations as 2015 plus outward

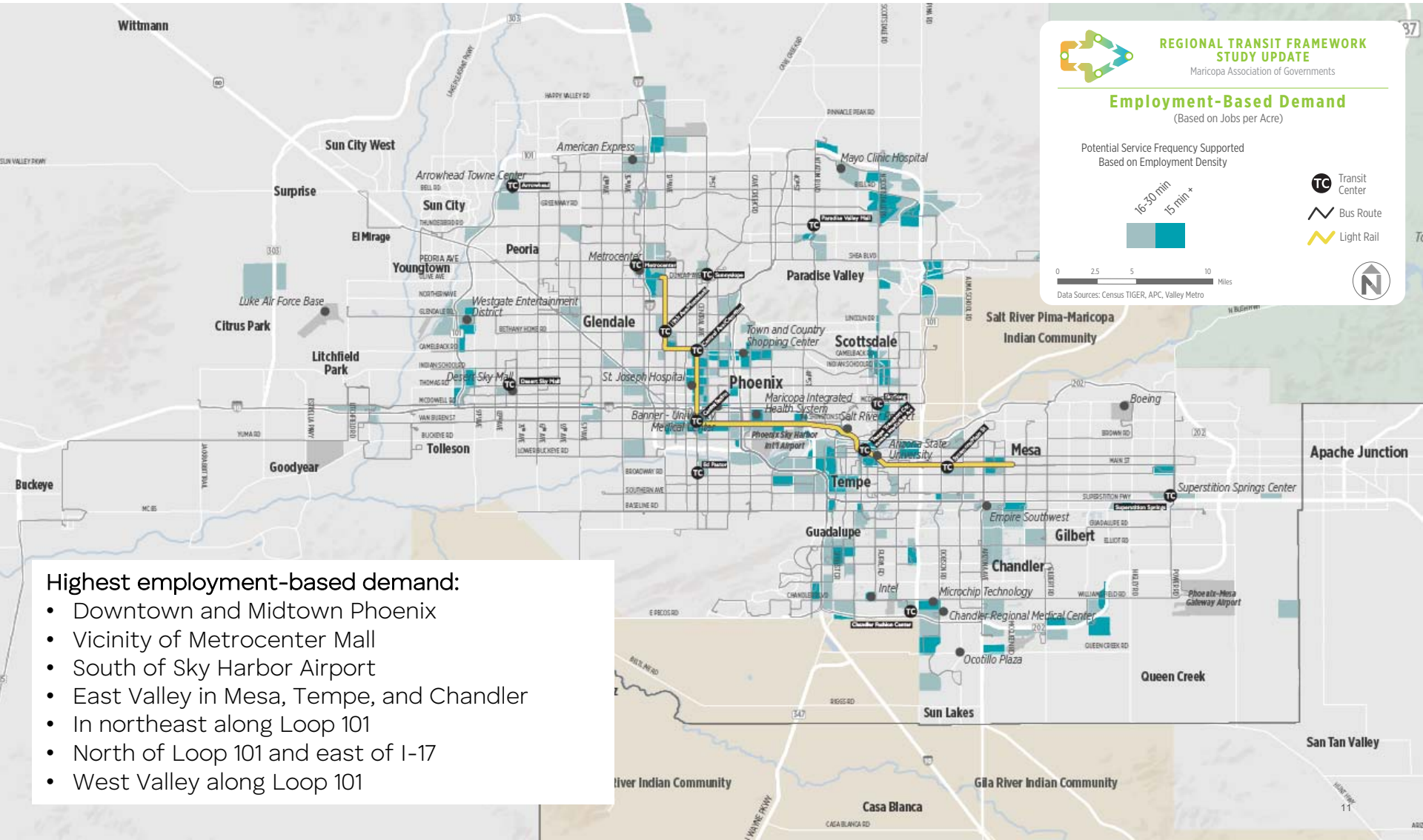


Highest employment-based demand in similar areas as 2015, plus:

- Camelback Road in Phoenix
- East Valley in Chandler and Gilbert
- Along much of Loop 101

EMP-BASED DEMAND FOR FREQUENT SERVICE

2040: Highest demand in Downtown, Midtown, and East Valley

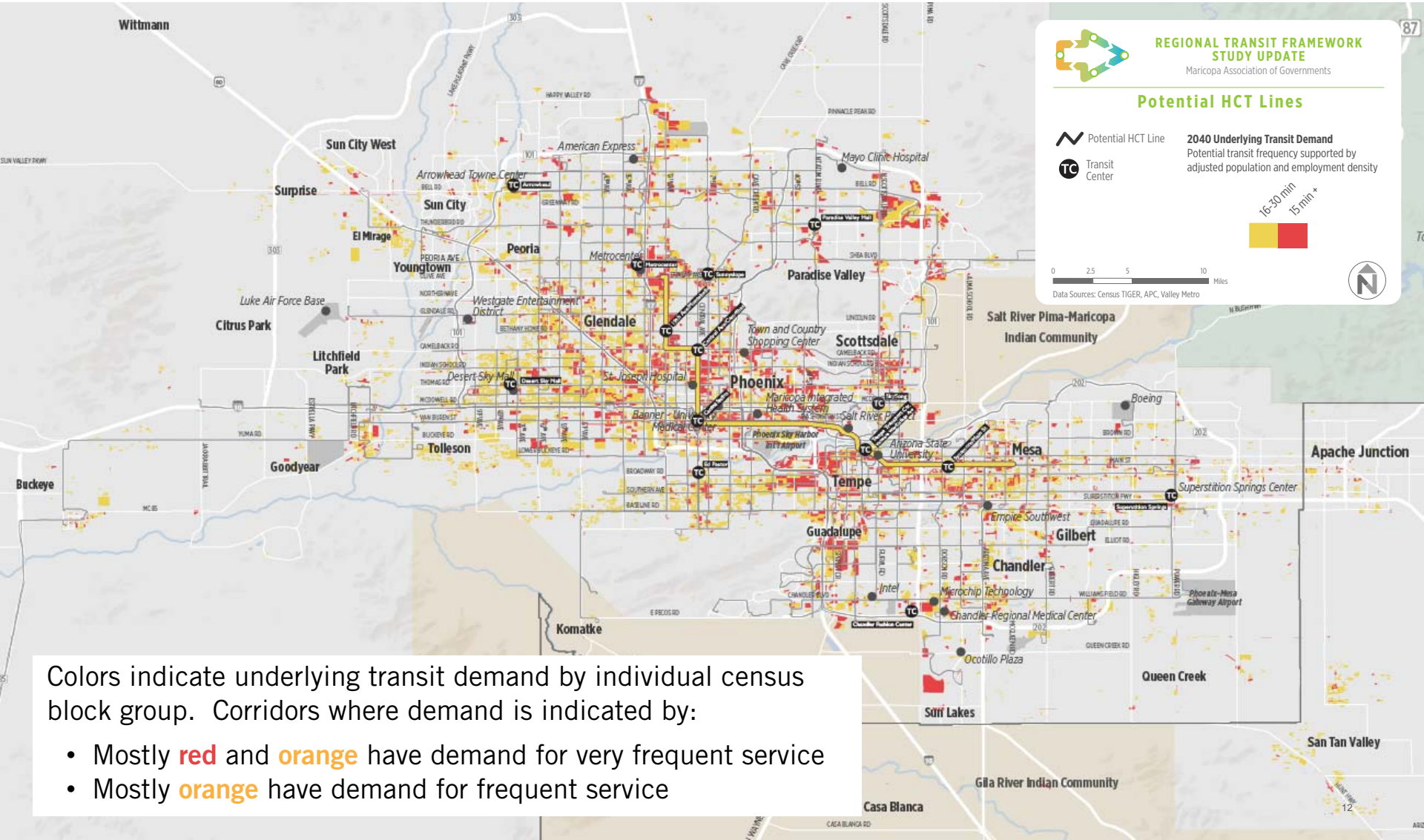


Highest employment-based demand:

- Downtown and Midtown Phoenix
- Vicinity of Metrocenter Mall
- South of Sky Harbor Airport
- East Valley in Mesa, Tempe, and Chandler
- In northeast along Loop 101
- North of Loop 101 and east of I-17
- West Valley along Loop 101

COMPOSITE DEMAND FOR FREQUENT SERVICE

2015: Already significant demand in much of the region

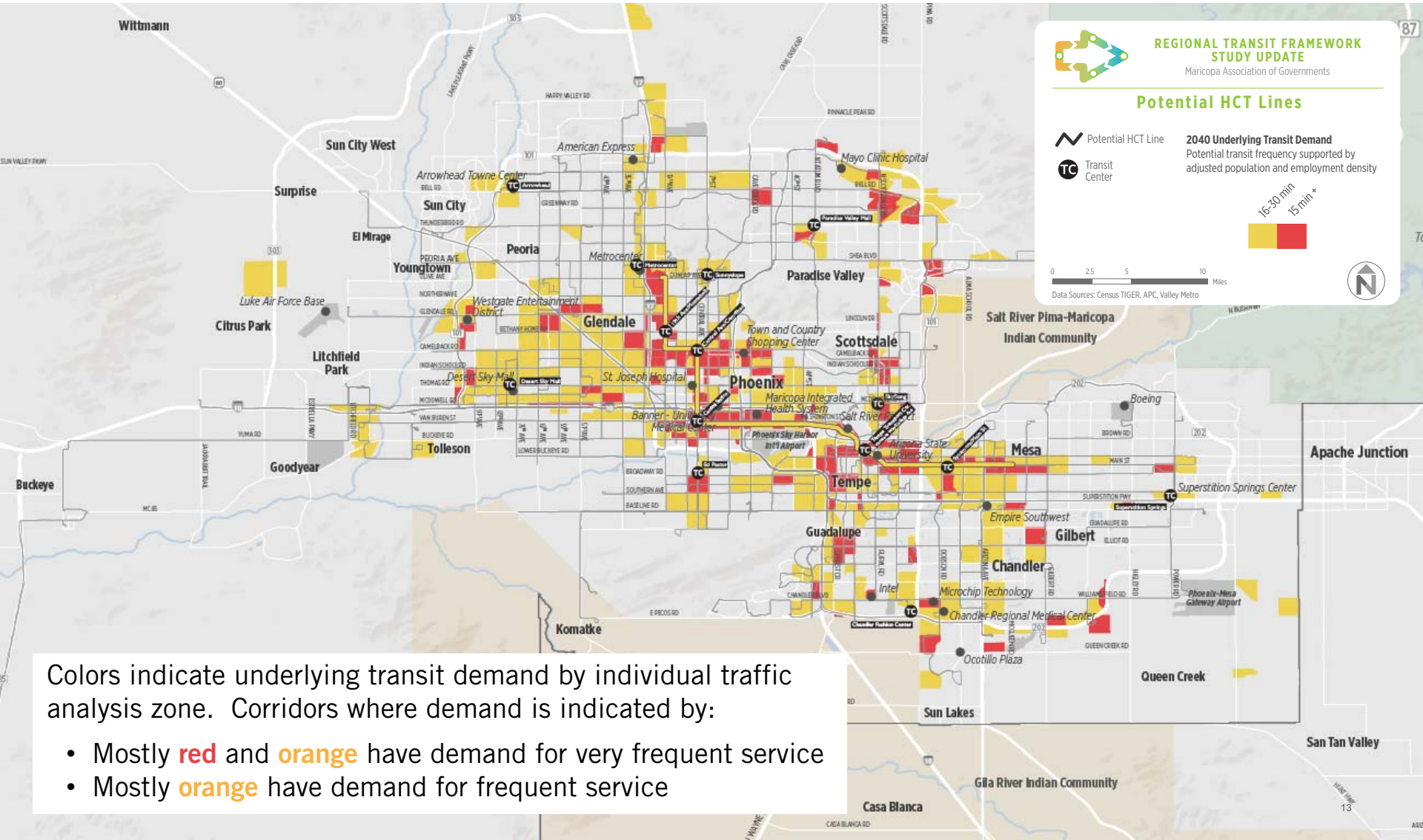


Colors indicate underlying transit demand by individual census block group. Corridors where demand is indicated by:

- Mostly **red** and **orange** have demand for very frequent service
- Mostly **orange** have demand for frequent service

COMPOSITE DEMAND FOR FREQUENT SERVICE

2040: Demand continues to grow within the loops

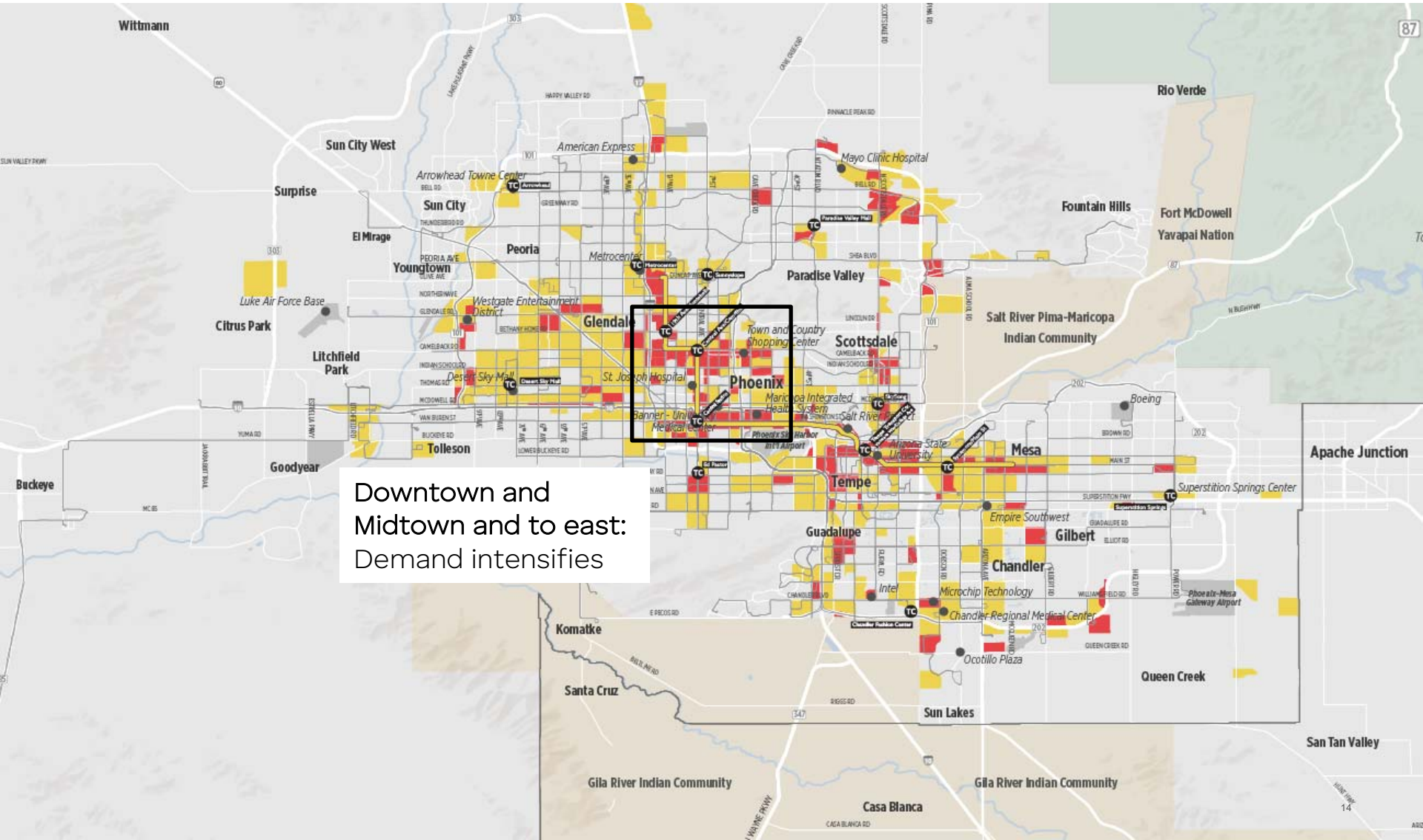


Colors indicate underlying transit demand by individual traffic analysis zone. Corridors where demand is indicated by:

- Mostly **red** and **orange** have demand for very frequent service
- Mostly **orange** have demand for frequent service

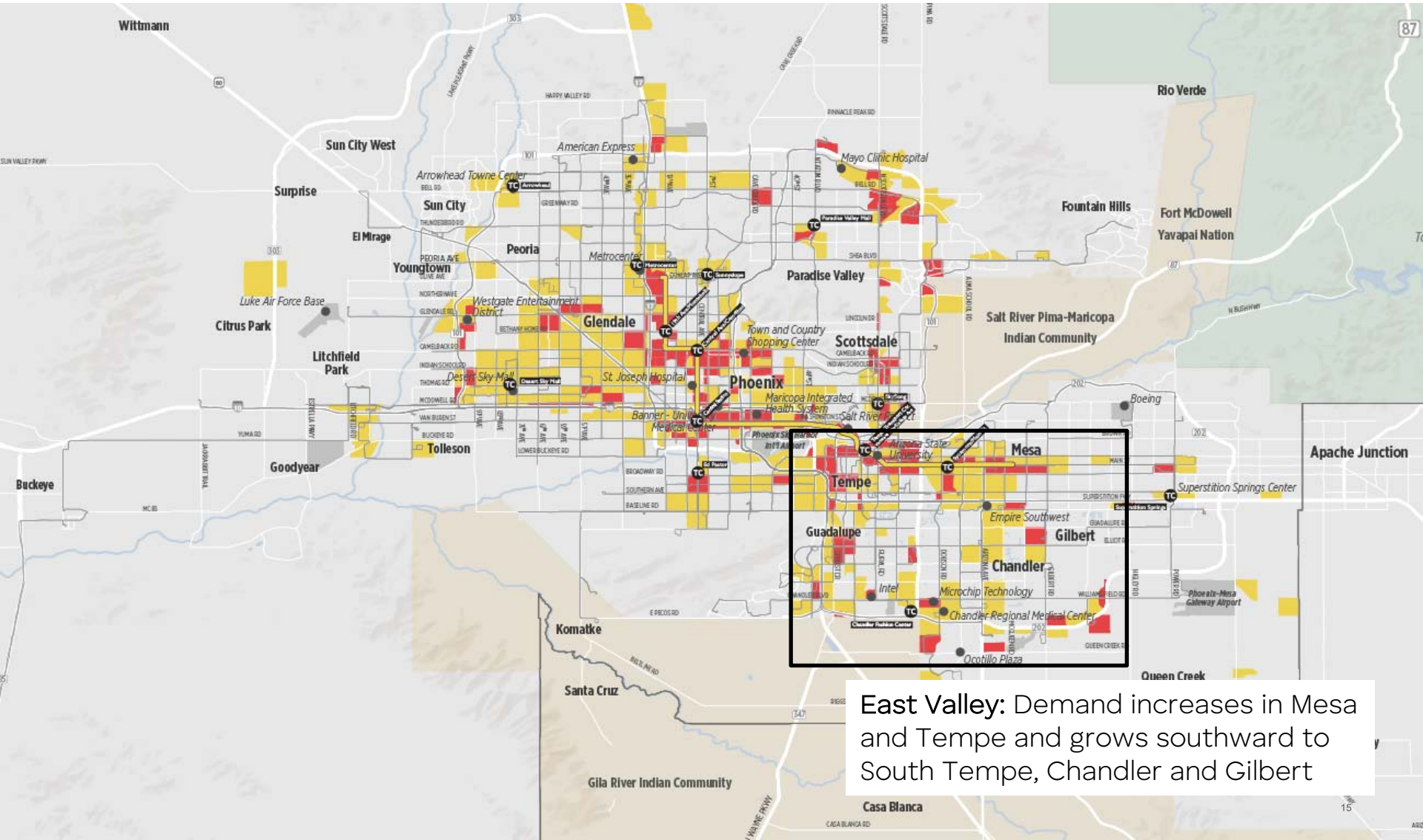
COMPOSITE DEMAND FOR FREQUENT SERVICE

2040: Regional core



COMPOSITE DEMAND FOR FREQUENT SERVICE

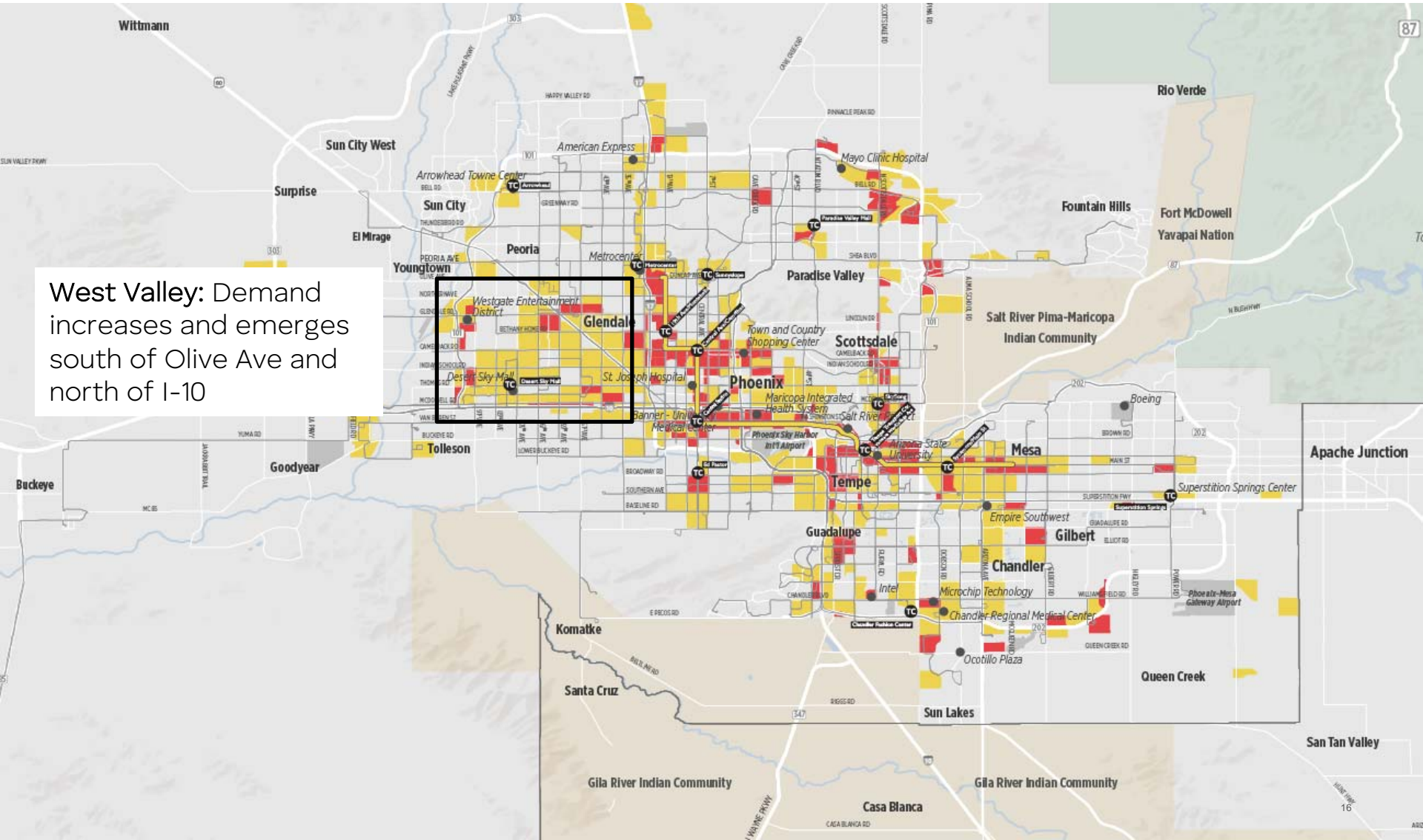
2040: East Valley



East Valley: Demand increases in Mesa and Tempe and grows southward to South Tempe, Chandler and Gilbert

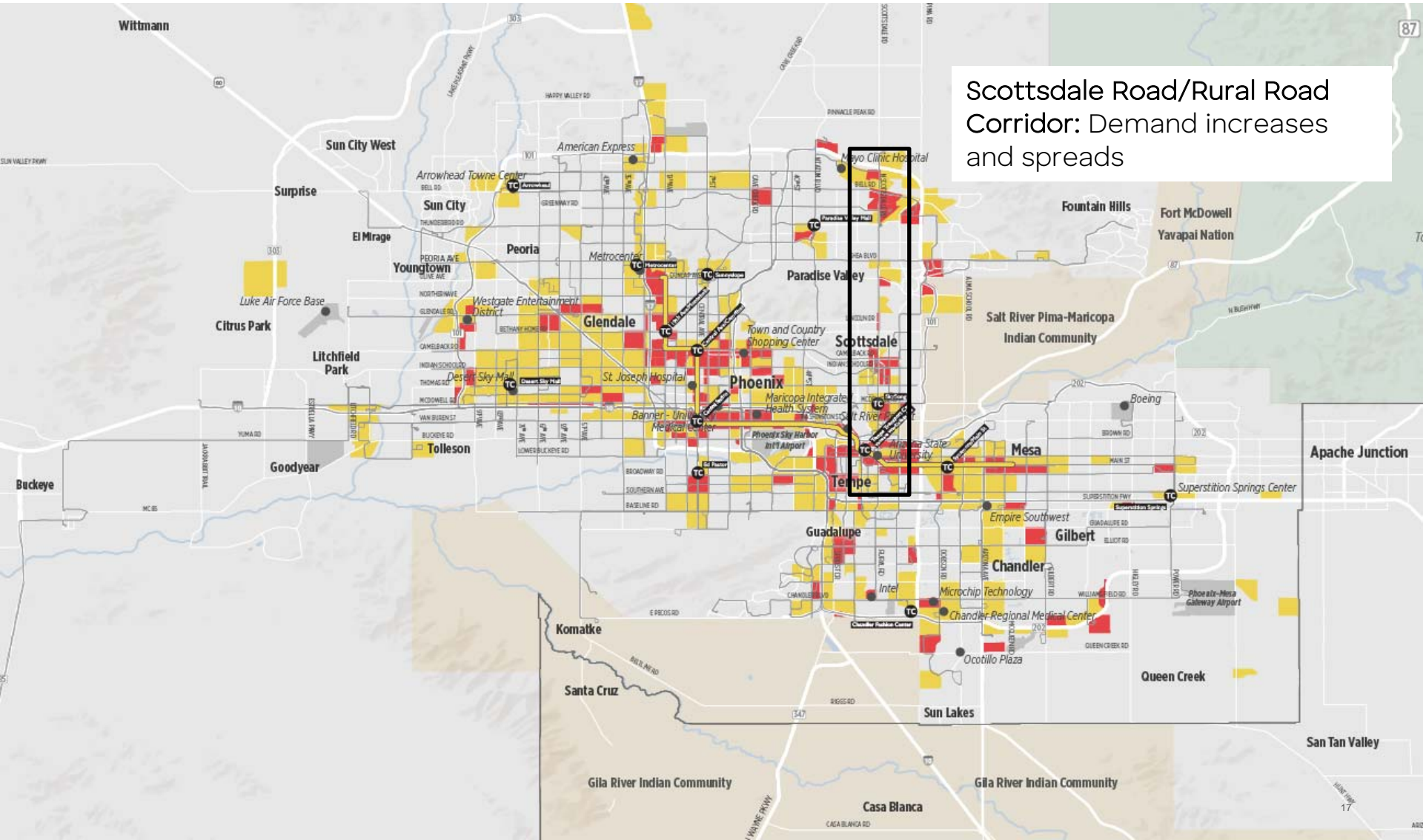
COMPOSITE DEMAND FOR FREQUENT SERVICE

2040: West Valley



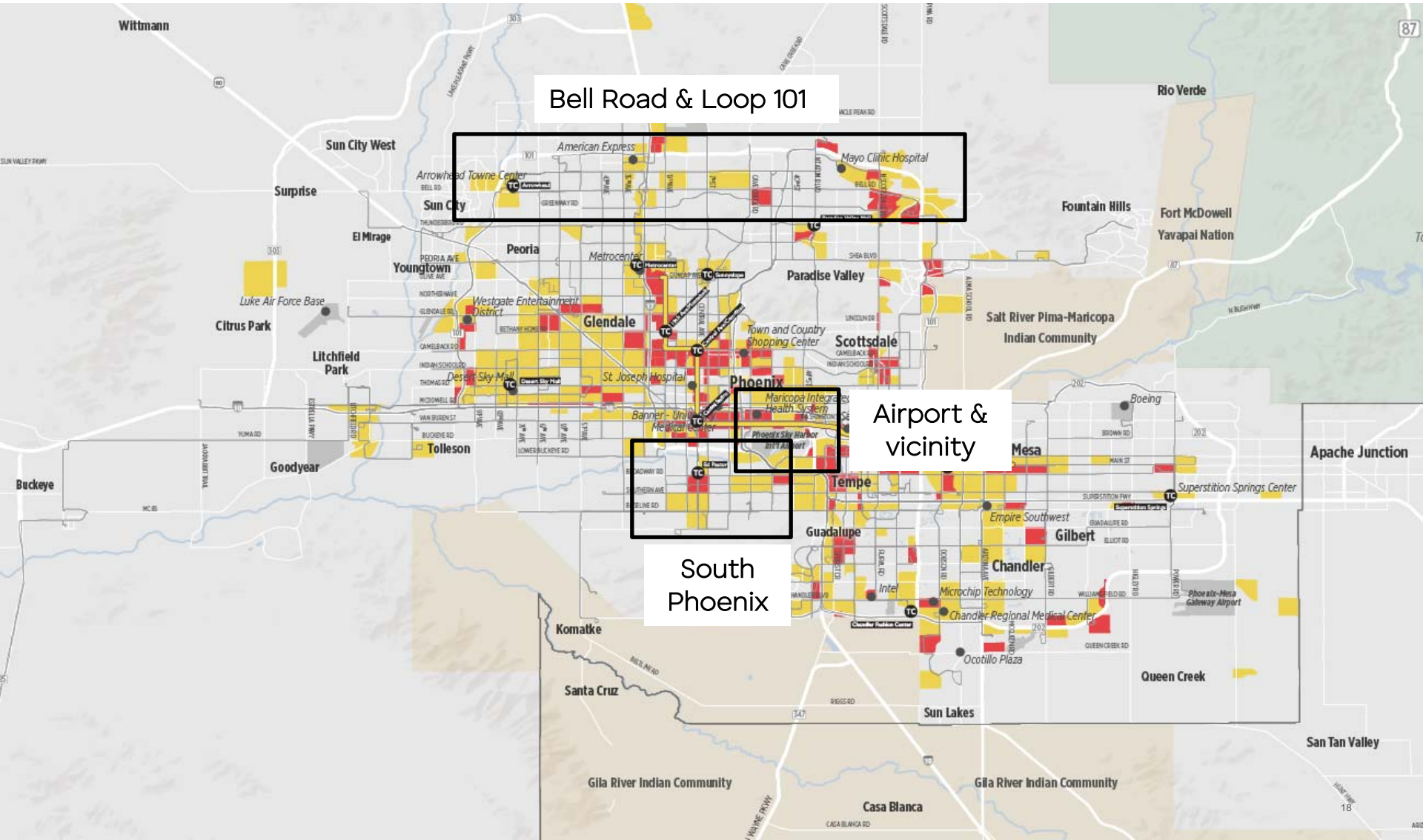
COMPOSITE DEMAND FOR FREQUENT SERVICE

2040: Scottsdale Road/Rural Road



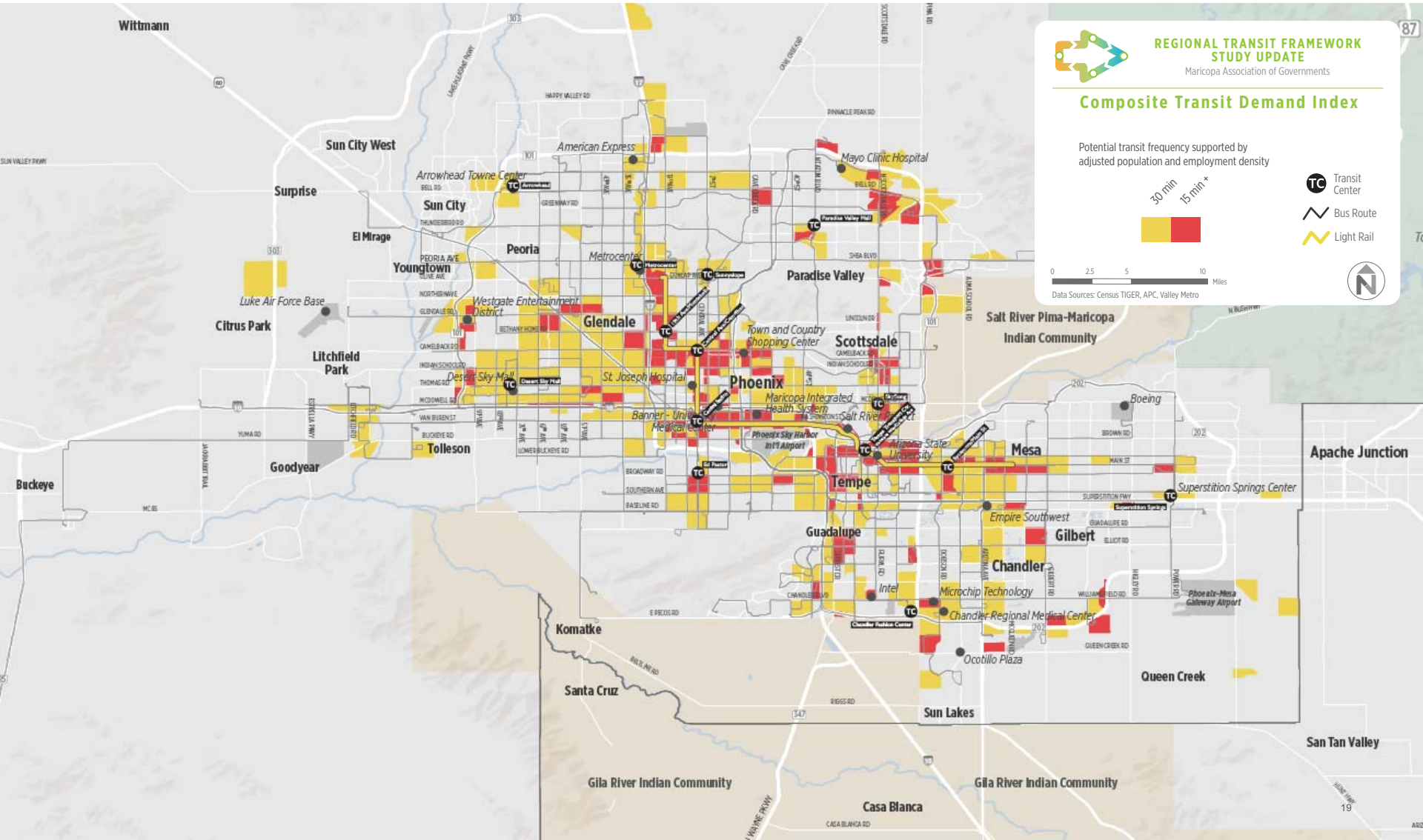
COMPOSITE DEMAND FOR FREQUENT SERVICE

2040: Other areas



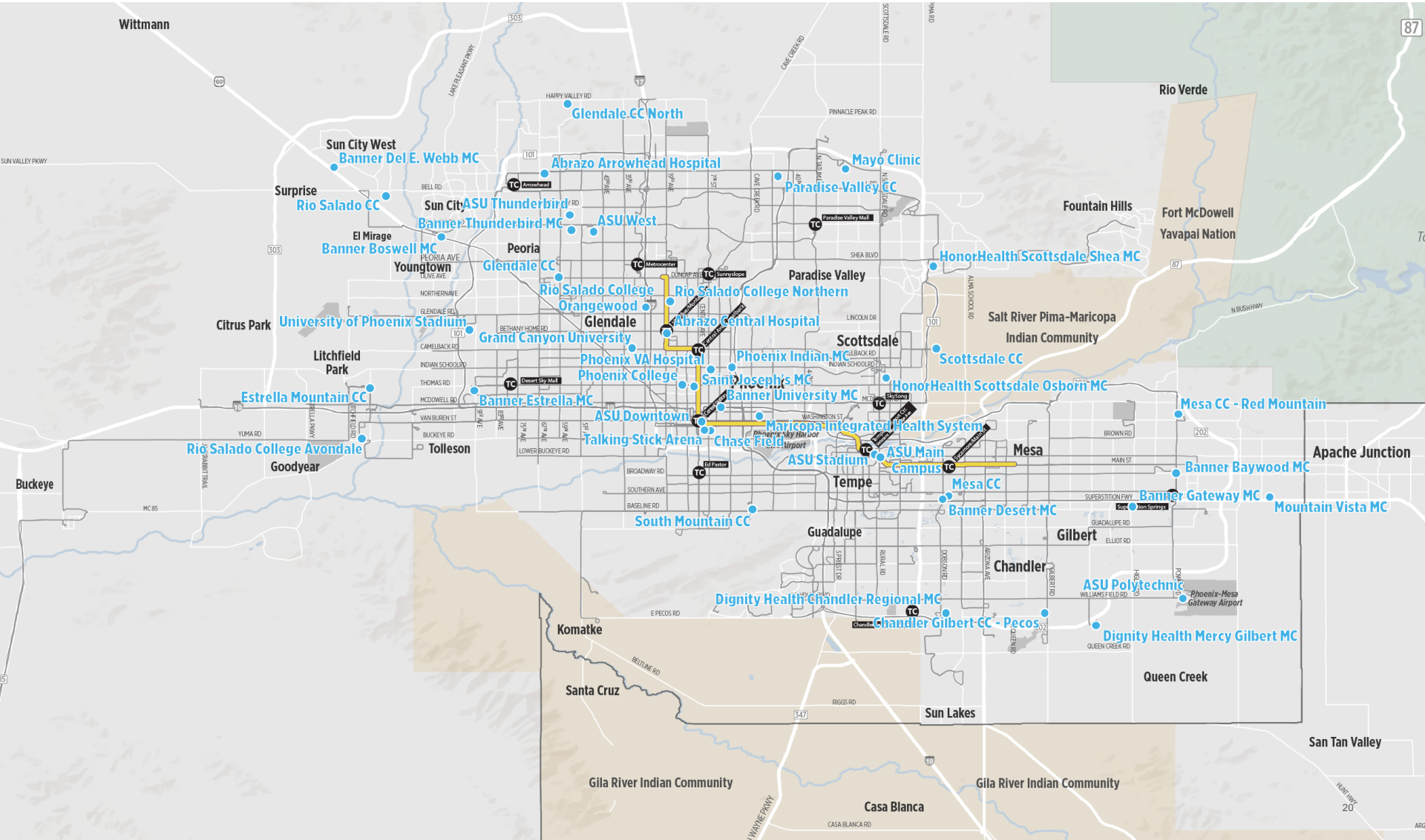
COMPOSITE DEMAND FOR FREQUENT SERVICE

2040 Summary: Significant demand in much of the region



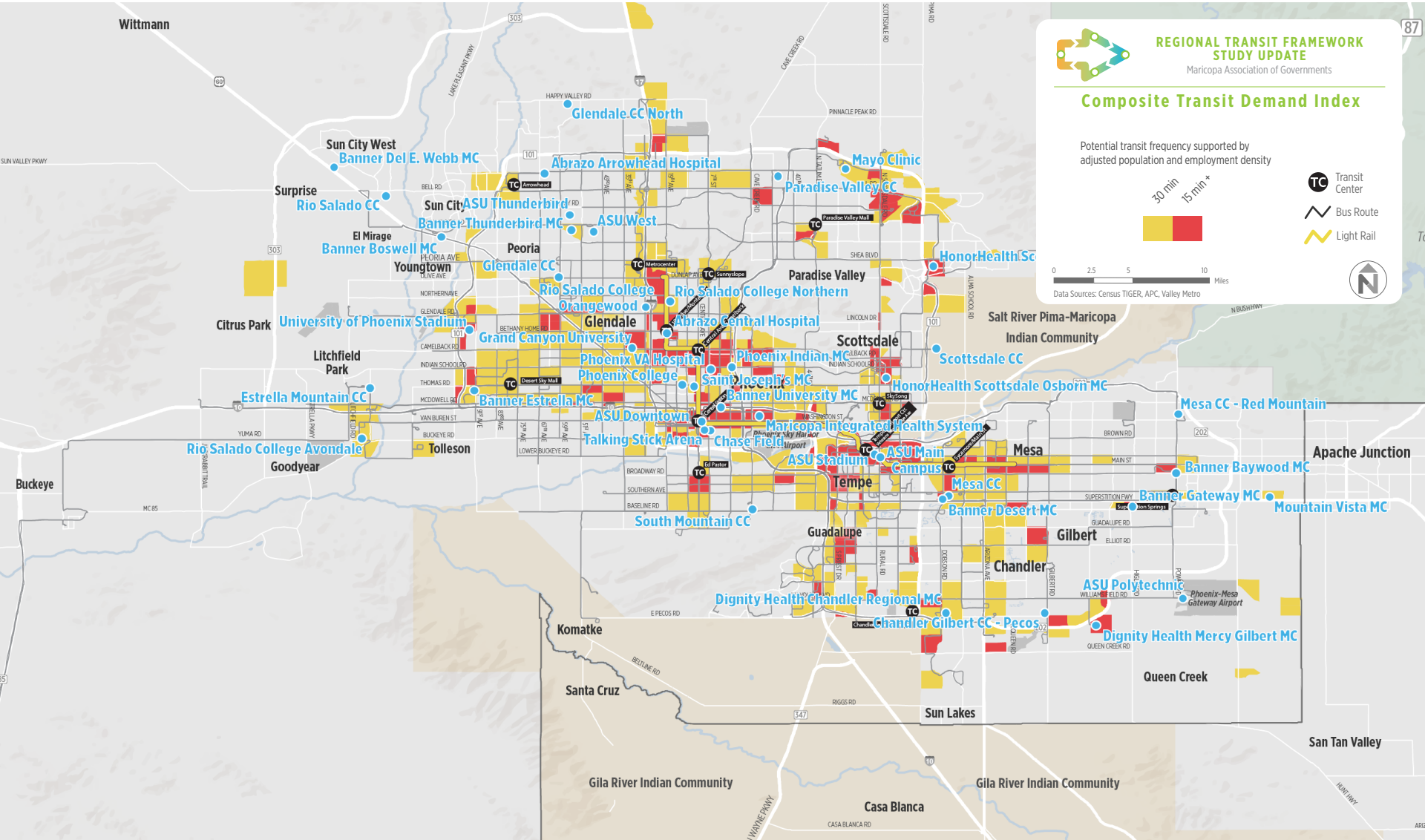
ACTIVITY CENTERS

Additional travel destinations not reflected in employment data



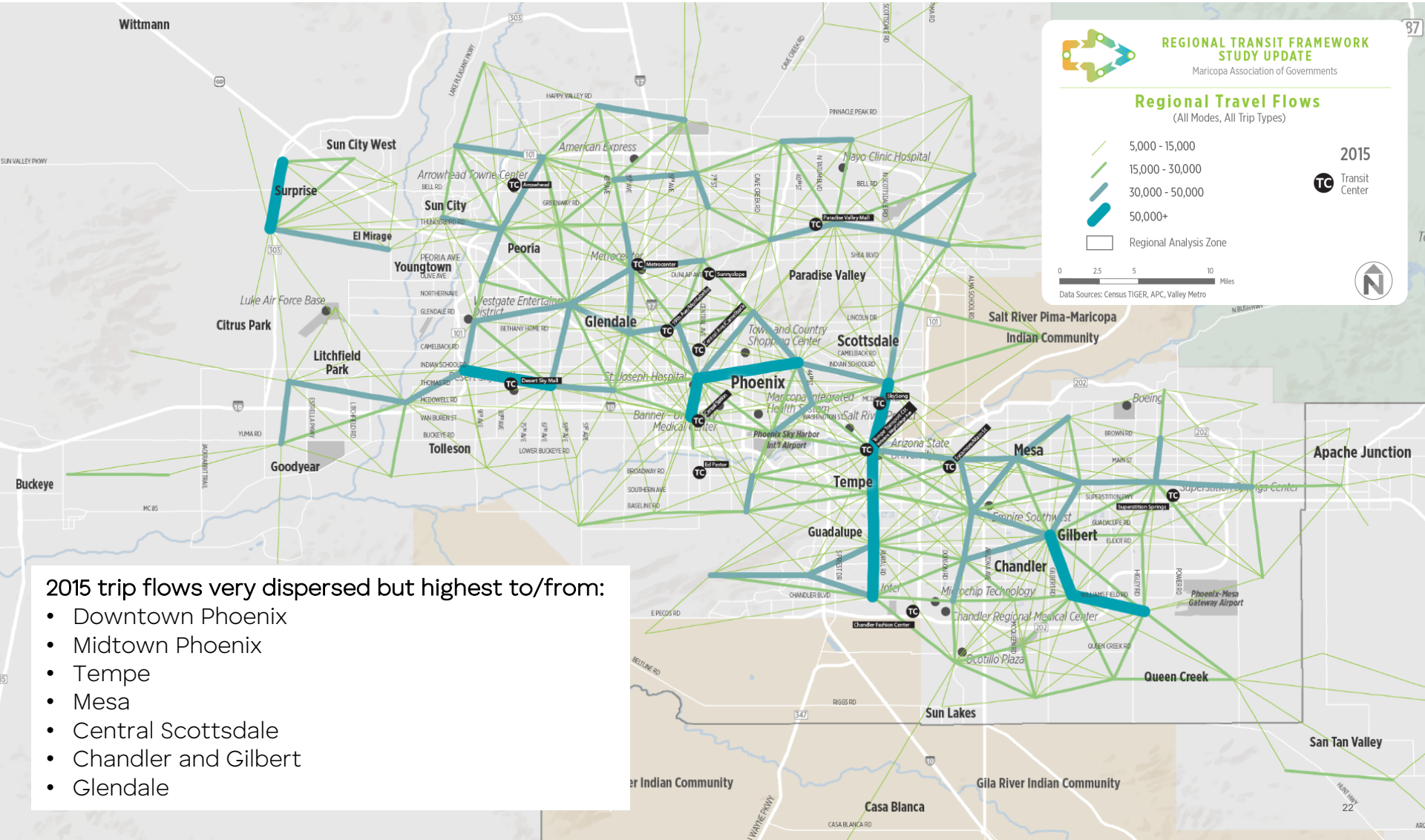
ACTIVITY CENTERS

Additional travel destinations not reflected in employment data



TRAVEL PATTERNS

2015 all trips, all modes

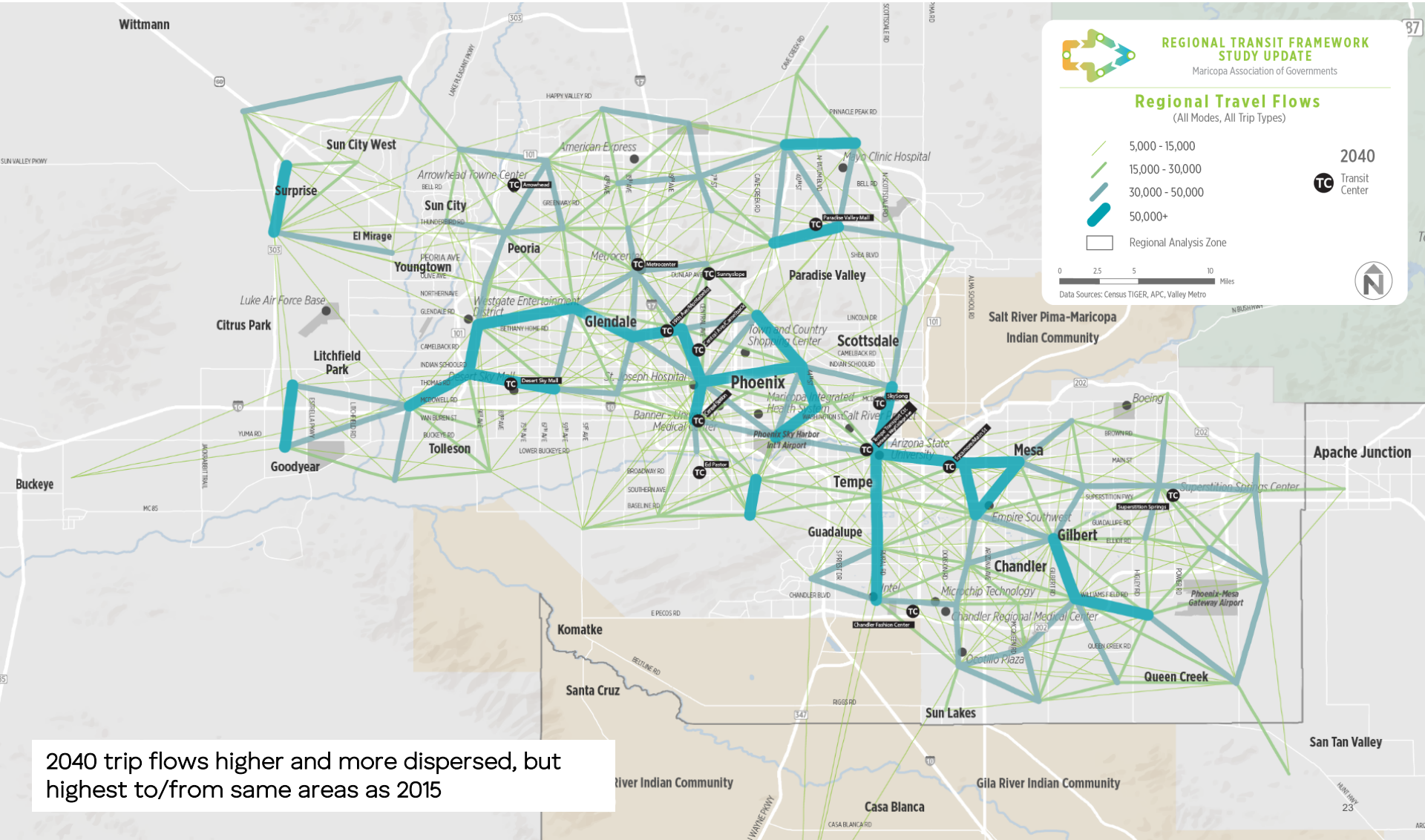


2015 trip flows very dispersed but highest to/from:

- Downtown Phoenix
- Midtown Phoenix
- Tempe
- Mesa
- Central Scottsdale
- Chandler and Gilbert
- Glendale

TRAVEL PATTERNS

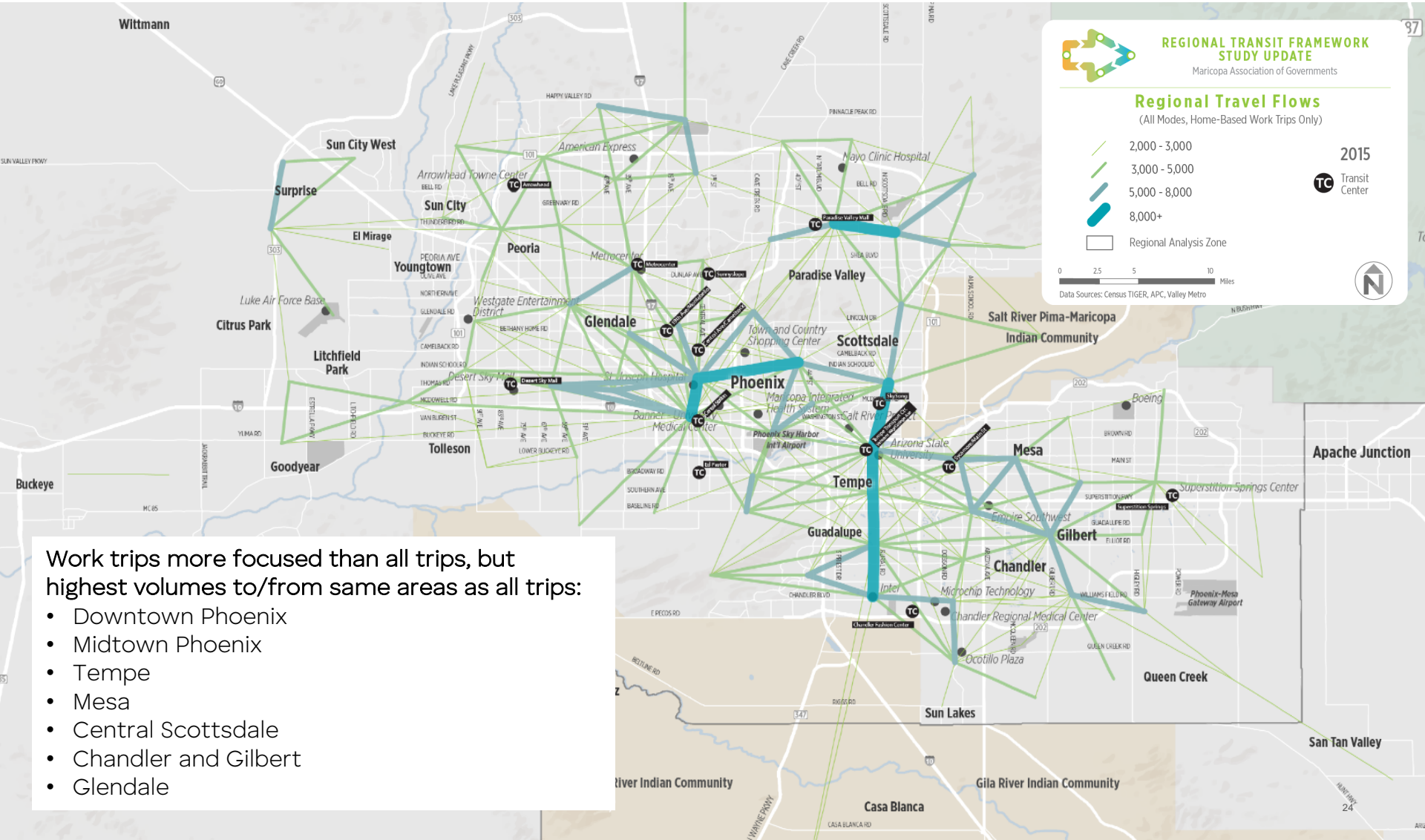
2040 all trips; all modes: patterns become more dispersed



2040 trip flows higher and more dispersed, but highest to/from same areas as 2015

TRAVEL PATTERNS

2015 work trips; all modes

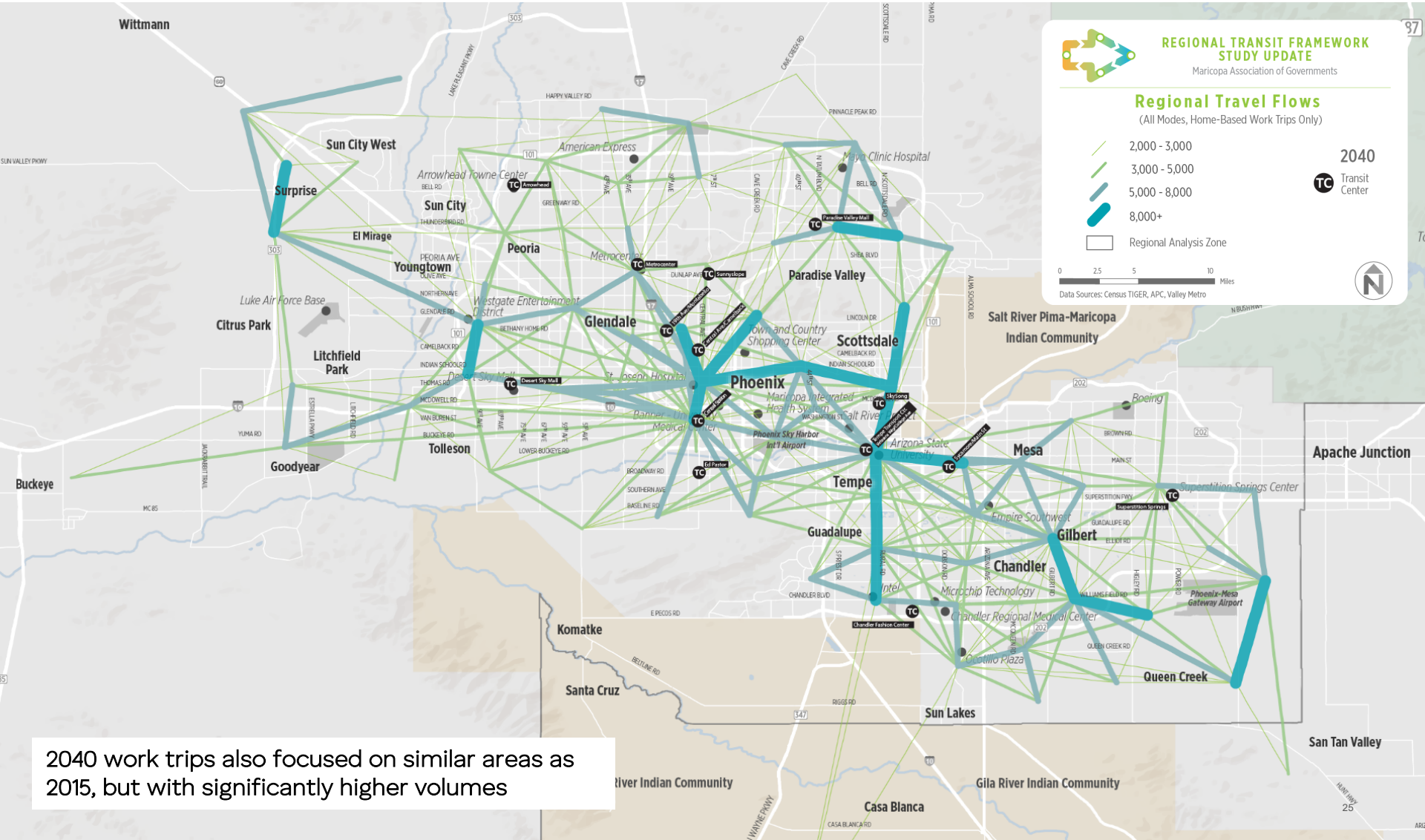


Work trips more focused than all trips, but highest volumes to/from same areas as all trips:

- Downtown Phoenix
- Midtown Phoenix
- Tempe
- Mesa
- Central Scottsdale
- Chandler and Gilbert
- Glendale

TRAVEL PATTERNS

2040 work trips; all modes: more focused than all trips



2040 work trips also focused on similar areas as 2015, but with significantly higher volumes

KEY FINDINGS

Through 2040:

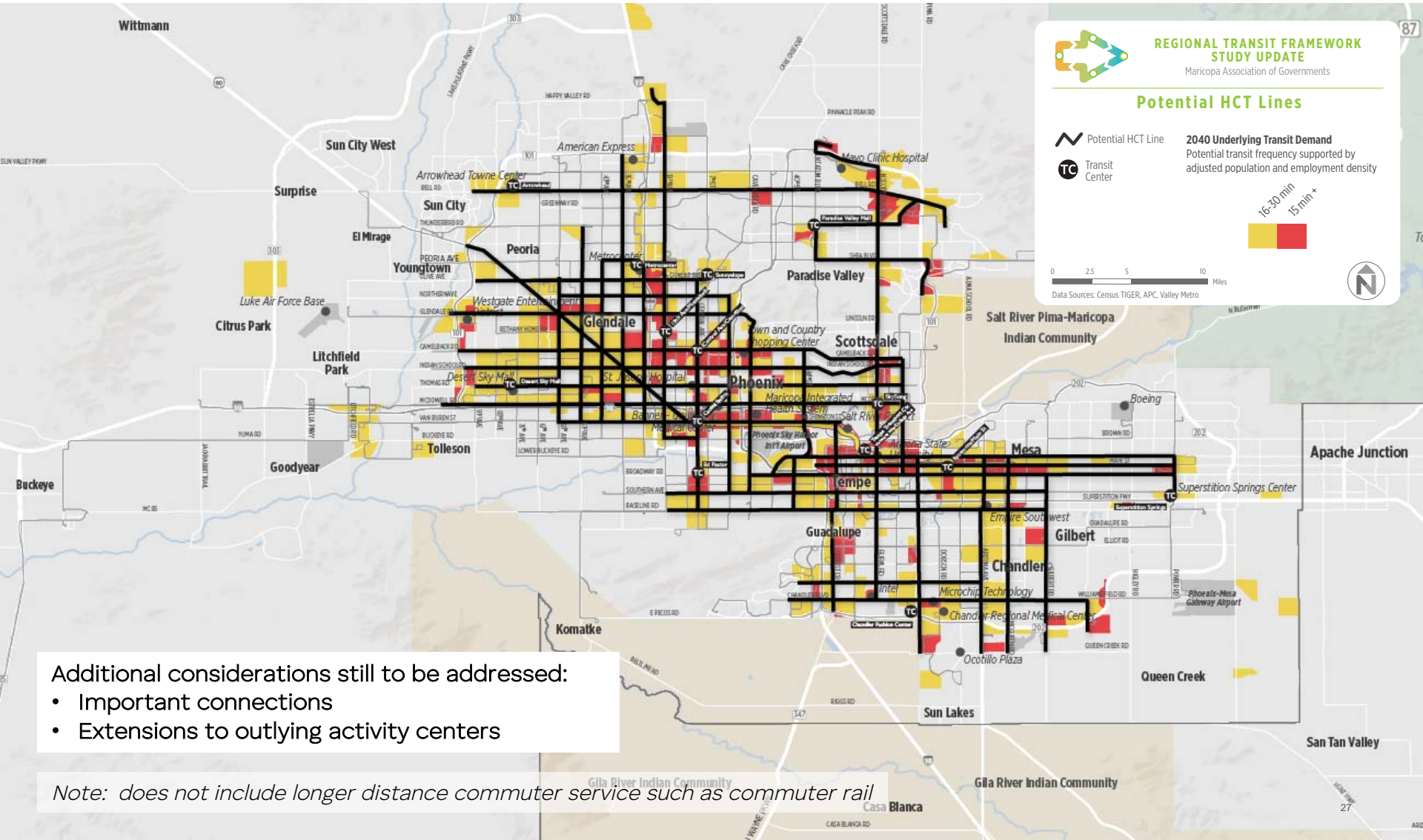
- Demand for frequent service will grow significantly
- Mostly in areas where demand currently exists, but also some outward expansion

Highest demands for frequent services will be:

- Downtown and Midtown Phoenix
- East Valley
- West Valley
- Scottsdale Road/Rural Road corridor
- South Phoenix
- Vicinity of Sky Harbor Airport

POTENTIAL HCT CORRIDORS

Many corridors have likely demand for frequent service



Additional considerations still to be addressed:

- Important connections
- Extensions to outlying activity centers

Note: does not include longer distance commuter service such as commuter rail

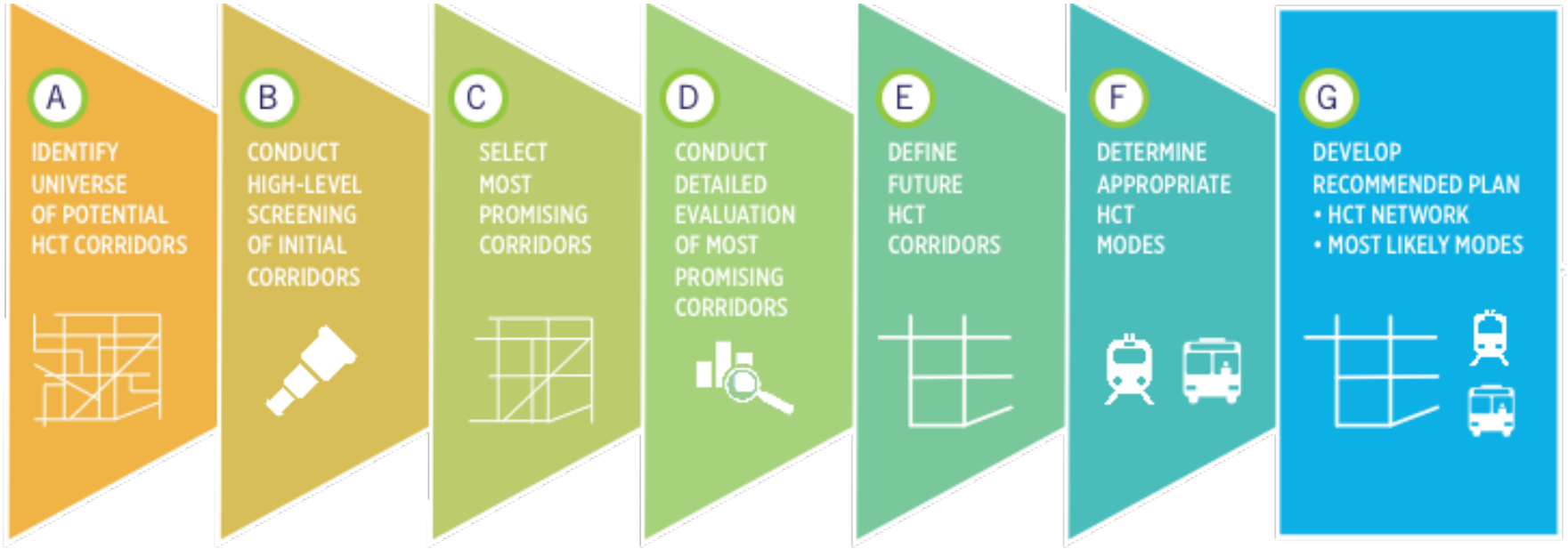
NEXT STEPS

Refine/confirm potential HCT corridors

Finalize evaluation framework

Begin screening of initial corridors

PREVIEW OF HCT EVALUATION FRAMEWORK



Inputs:
- Previous plans
- Current studies
- RTFSU market analysis

Example criteria:
- Existing ridership
- 2040 population
- 2040 employment
- Major activity centers
- Connection with other transit

Select based on results of Step B

Example criteria:
- Projected ridership
- Future land use
- Development potential
- Consistency with local plans
- FTA New Starts Criteria

- Select based on results of Step D
- Define in terms of:
  - Alignments
  - Termini
  - Transfer locations

- Select based on:
  - Projected ridership
  - Corridor characteristics
  - Consistency with local plans
  - Other
- Identify range of HCT modes rather than single mode

- Determine based on results of Steps E and F

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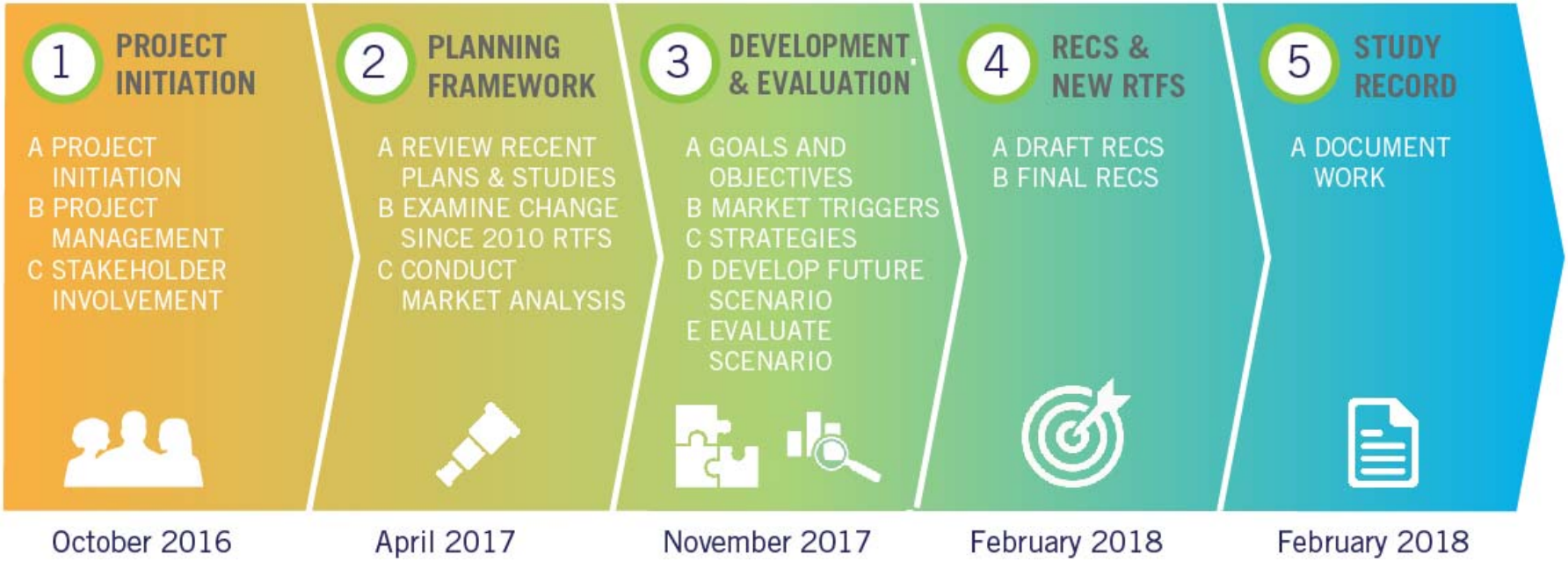
TIMELINE



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