



Tucson Electric Power

# Midtown Reliability Project

*Visual Simulation Package*

*Approved Route 4B*

*E. Broadway Blvd./N. Euclid Ave.*

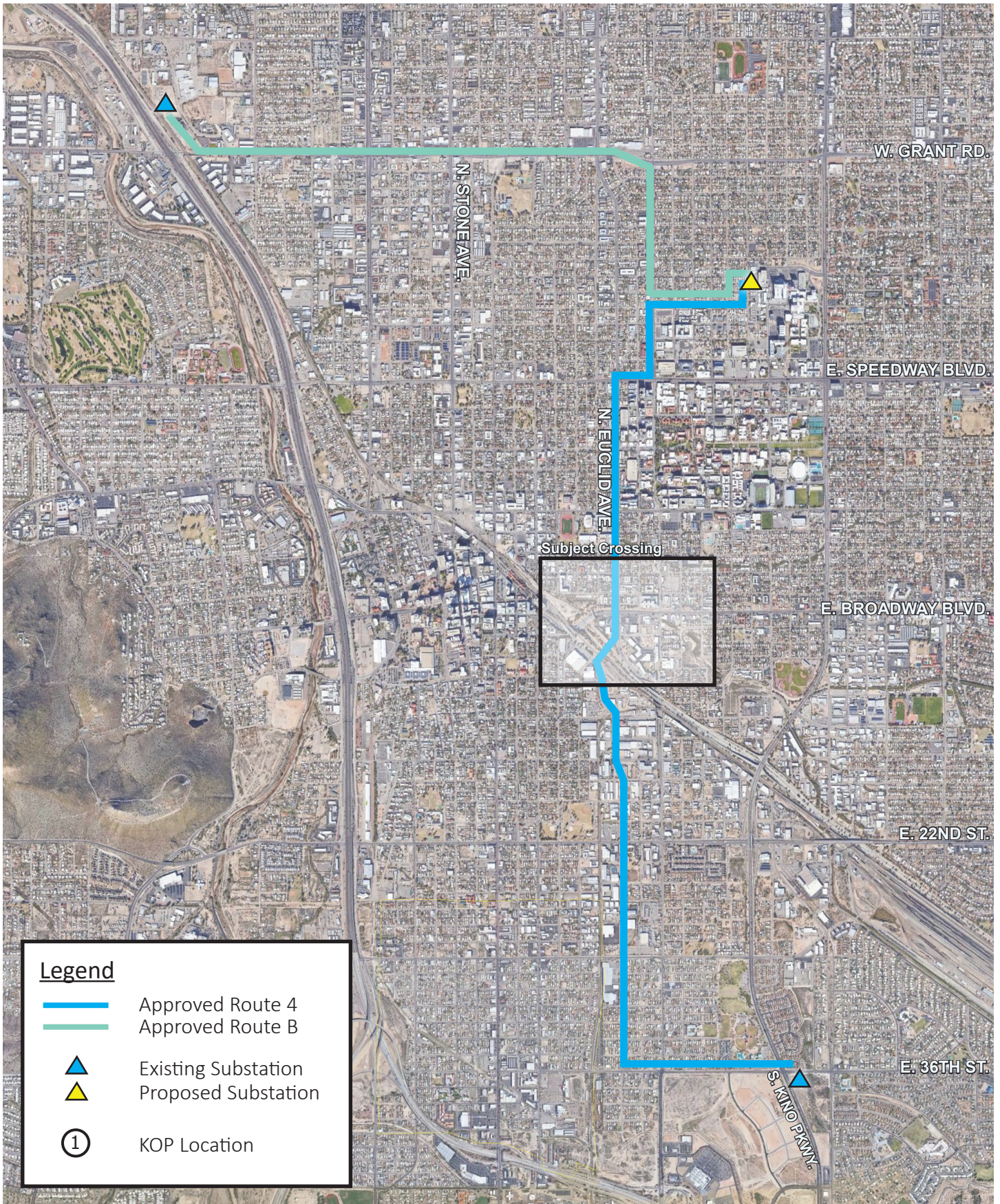
Prepared By:

Jeremy Palmer | Sole Proprietor

September 30th, 2024



# Midtown Reliability Project Key Observation Point (KOP) - Key Map



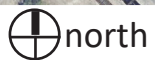
**Legend**

- Approved Route 4
- Approved Route B
- Existing Substation
- Proposed Substation
- KOP Location



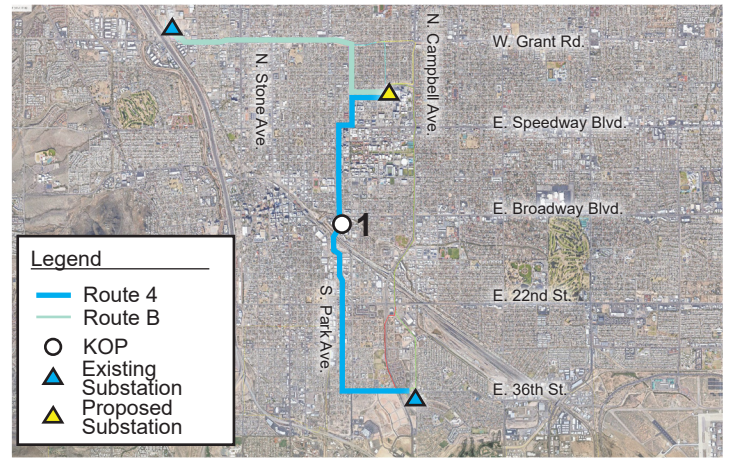


Midtown Reliability Project  
Key Observation Point (KOP) - Key Map





Key Observation Point (KOP) # 1



**Notes:**

**Camera Information**

- Type: Canon EOS RP
- Sensor: CMOS (Full-Frame) 35.9mm x 24mm
- Lens: Canon RF 24-105mm f/4-7.1 IS STM
- Focal Length: 35mm | F-Stop: f/9 | ISO:100
- Dimensions in pixel: 6240 x 4160

**KOP**

- Representative View for: Commercial and Industrial
- Location: 121 S. Euclid Ave.
- Latitude: 32°13'14.12"N; Longitude:110°57'33.57"W
- View Point Elevation at Eye Level: 2,410 ft.
- Looking: north
- Poles Visible: Alternative 4 structures
- Image File Name: IMG\_4391.JPG

**Simulation Notes**

- Photo Taken: September 21, 2024 at 12:40 pm
- The image is based on a single photo and represent approximately 54 degree horizontal field of view.
- This view is approximately 68 feet south of the nearest pole represented in the simulation.
- The simulation is based on the best information available and is preliminary. Final alignment and structure locations are subject to change based on final engineering and other factors.



### Key Observation Point (KOP) #1



Current Condition



Simulated Condition

Route 4 - Weathered Finish



### Key Observation Point (KOP) #1



Current Condition



Simulated Condition

Route 4 - Galvanized Finish



### Key Observation Point (KOP) #1



Current Condition

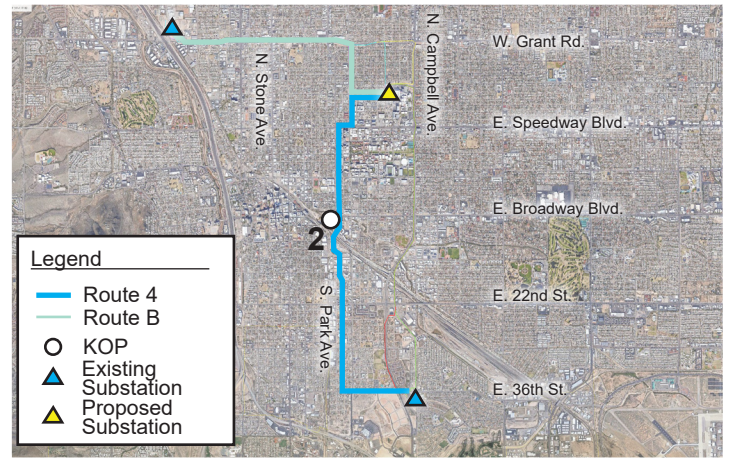


Simulated Condition

Route 4 - Mojave Sage Finish



Key Observation Point (KOP) # 2



**Notes:**

**Camera Information**

- Type: Canon EOS RP
- Sensor: CMOS (Full-Frame) 35.9mm x 24mm
- Lens: Canon RF 24-105mm f/4-7.1 IS STM
- Focal Length: 24mm | F-Stop: f/10 | ISO:100
- Dimensions in pixel: 6240 x 4160

**KOP**

- Representative View for: Commercial and Industrial
- Location: 702 E. Broadway Blvd.
- Latitude: 32°13'16.25"N; Longitude: 110°57'36.77"W
- View Point Elevation at Eye Level: 2,408 ft.
- Looking: east
- Poles Visible: Alternative 4 structures
- Image File Name: IMG\_4413.JPG

**Simulation Notes**

- Photo Taken: September 21, 2024 at 12:46 pm
- The image is based on a single photo and represent approximately 73.7 degree horizontal field of view.
- This view is approximately 324 feet west of the nearest pole represented in the simulation.
- The simulation is based on the best information available and is preliminary. Final alignment and structure locations are subject to change based on final engineering and other factors.



### Key Observation Point (KOP) #2



Current Condition



Simulated Condition

Route 4 - Weathered Finish



### Key Observation Point (KOP) #2



Current Condition



Simulated Condition

Route 4 - Galvanized Finish



### Key Observation Point (KOP) #2



Current Condition



Simulated Condition



Key Observation Point (KOP) # 3



**Notes:**

**Camera Information**

- Type: Canon EOS RP
- Sensor: CMOS (Full-Frame) 35.9mm x 24mm
- Lens: Canon RF 24-105mm f/4-7.1 IS STM
- Focal Length: 24mm | F-Stop: f/9 | ISO:100
- Dimensions in pixel: 6240 x 4160

**KOP**

- Representative View for: Commercial and Industrial
- Location: Aviation Bikeway
- Latitude: 32° 13' 18.27"N; Longitude: 110° 57' 35.68"W
- View Point Elevation at Eye Level: 2,408 ft.
- Looking: southeast
- Poles Visible: Alternative 4 structures
- Image File Name: IMG\_4447.JPG

**Simulation Notes**

- Photo Taken: September 21, 2024 at 12:51 pm
- The image is based on a single photo and represent approximately 73.7 degree horizontal field of view.
- This view is approximately 809 feet west of the nearest pole represented in the simulation.
- The simulation is based on the best information available and is preliminary. Final alignment and structure locations are subject to change based on final engineering and other factors.



### Key Observation Point (KOP) #3



Current Condition



Simulated Condition

Route 4 - Weathered Finish



### Key Observation Point (KOP) #3



Current Condition



Simulated Condition

Route 4 - Galvanized Finish



### Key Observation Point (KOP) #3



Current Condition



Simulated Condition

Route 4 - Mojave Sage Finish



Key Observation Point (KOP) # 4



**Notes:**

**Camera Information**

- Type: Canon EOS RP
- Sensor: CMOS (Full-Frame) 35.9mm x 24mm
- Lens: Canon RF 24-105mm f/4-7.1 IS STM
- Focal Length: 24mm | F-Stop: f/9 | ISO:100
- Dimensions in pixel: 6240 x 4160

**KOP**

- Representative View for: Residential, Students, Commercial
- Location: 51 N Euclid Ave.
- Latitude: 32°13'19.49"N; Longitude:110°57'34.37"W
- View Point Elevation at Eye Level: 2,409 ft.
- Looking: south
- Poles Visible: Alternative 4 structures
- Image File Name: IMG\_4458.JPG

**Simulation Notes**

- Photo Taken: September 21, 2024 at 12:54 pm
- The image is based on a single photo and represent approximately 73.7 degree horizontal field of view.
- This view is approximately 480 feet north of the nearest pole represented in the simulation.
- The simulation is based on the best information available and is preliminary. Final alignment and structure locations are subject to change based on final engineering and other factors.



### Key Observation Point (KOP) #4



Current Condition



Simulated Condition

Route 4 - Weathered Finish



### Key Observation Point (KOP) #4



Current Condition



Simulated Condition

Route 4 - Galvanized Finish



### Key Observation Point (KOP) #4



Current Condition

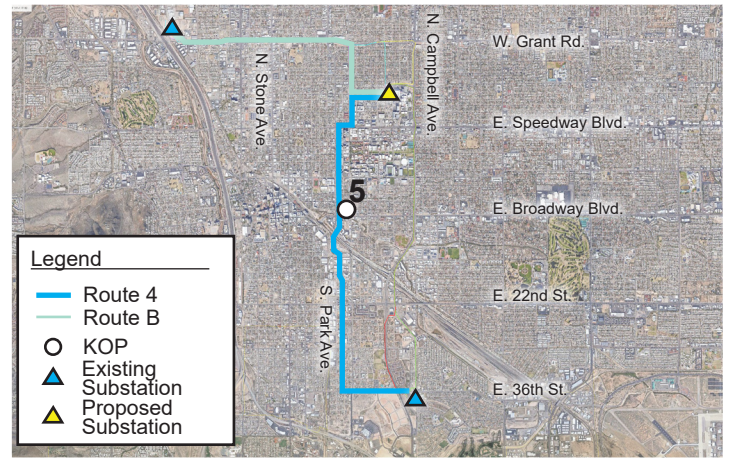


Simulated Condition

Route 4 - Mojave Sage Finish



Key Observation Point (KOP) # 5



**Notes:**

**Camera Information**

- Type: Canon EOS RP
- Sensor: CMOS (Full-Frame) 35.9mm x 24mm
- Lens: Canon RF 24-105mm f/4-7.1 IS STM
- Focal Length: 24mm | F-Stop: f/9 | ISO:100
- Dimensions in pixel: 6240 x 4160

**KOP**

- Representative View for: Residential, Students, Commercial
- Location: 821 E. Broadway Blvd.
- Latitude: 32°13'17.56"N; Longitude:110°57'30.92"W
- View Point Elevation at Eye Level: 2,407 ft.
- Looking: west
- Poles Visible: Alternative 4 structures
- Image File Name: IMG\_4477.JPG

**Simulation Notes**

- Photo Taken: September 21, 2024 at 12:59 pm
- The image is based on a single photo and represent approximately 73.7 degree horizontal field of view.
- This view is approximately 235 feet east of the nearest pole represented in the simulation.
- The simulation is based on the best information available and is preliminary. Final alignment and structure locations are subject to change based on final engineering and other factors.



### Key Observation Point (KOP) #5



Current Condition



Simulated Condition



### Key Observation Point (KOP) #5



Current Condition



Simulated Condition

Route 4 - Galvanized Finish



### Key Observation Point (KOP) #5



Current Condition



Simulated Condition