

REGIONAL TRANSIT: Moving Central Oklahoma Forward

Alternatives Analysis

*Prepared for Regional Transportation Authority of
Central Oklahoma Board of Directors*

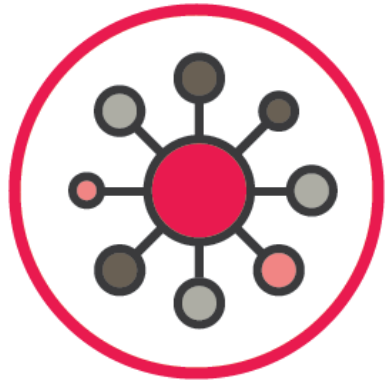
Prepared by Kimley-Horn and Associates

August 18, 2021

Agenda

- Recap June Meeting
- Travel Patterns Introduction
- Rail Service Development Overview
- Policy Considerations Overview
- East Corridor Introduction

Goal Statements



Mobility & Connectivity

Increase regional transportation choices by connecting activity centers with high-capacity transit that is fast and reliable.



Equity & Accessibility

Implement a safe and accessible system for all people that creates a community with options.



Economic & Workforce Development

Develop a transit system that inspires economic development to promote growth in the region and national competitiveness.



Sustainability & Viability

Provide a cost-effective sustainable system that invests resources responsibly.

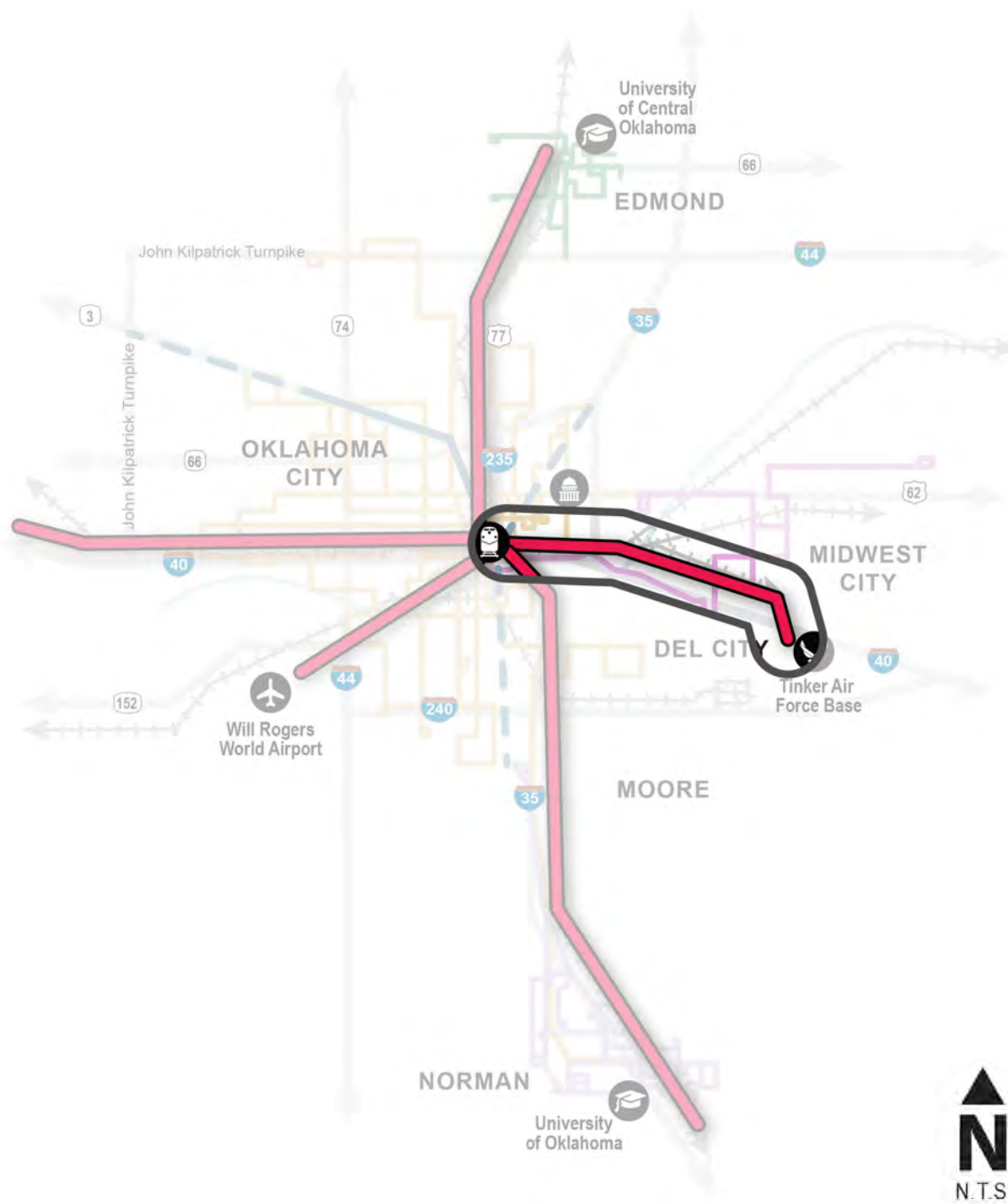
Recap of Path Forward

- Alternatives Analysis process
- Determine readiness of each of the corridors
- Recommend actions to take in the next year



LEGEND

-  Potential Regional Transit Corridor
-  Initiatives by Others (Under Design)
-  Initiatives by Others (Under Study)
-  Edmond Existing Fixed-Route Bus System
-  OKC Existing Fixed-Route Bus System
-  Midwest City Existing Fixed-Route Bus System
-  Norman Existing Fixed-Route Bus System
-  Major Roads
-  Existing Railroad
-  Oklahoma River



East Corridor

- Identified in previous study
- Significant analysis completed previously
- 2015 recommendation misalignment with best practices

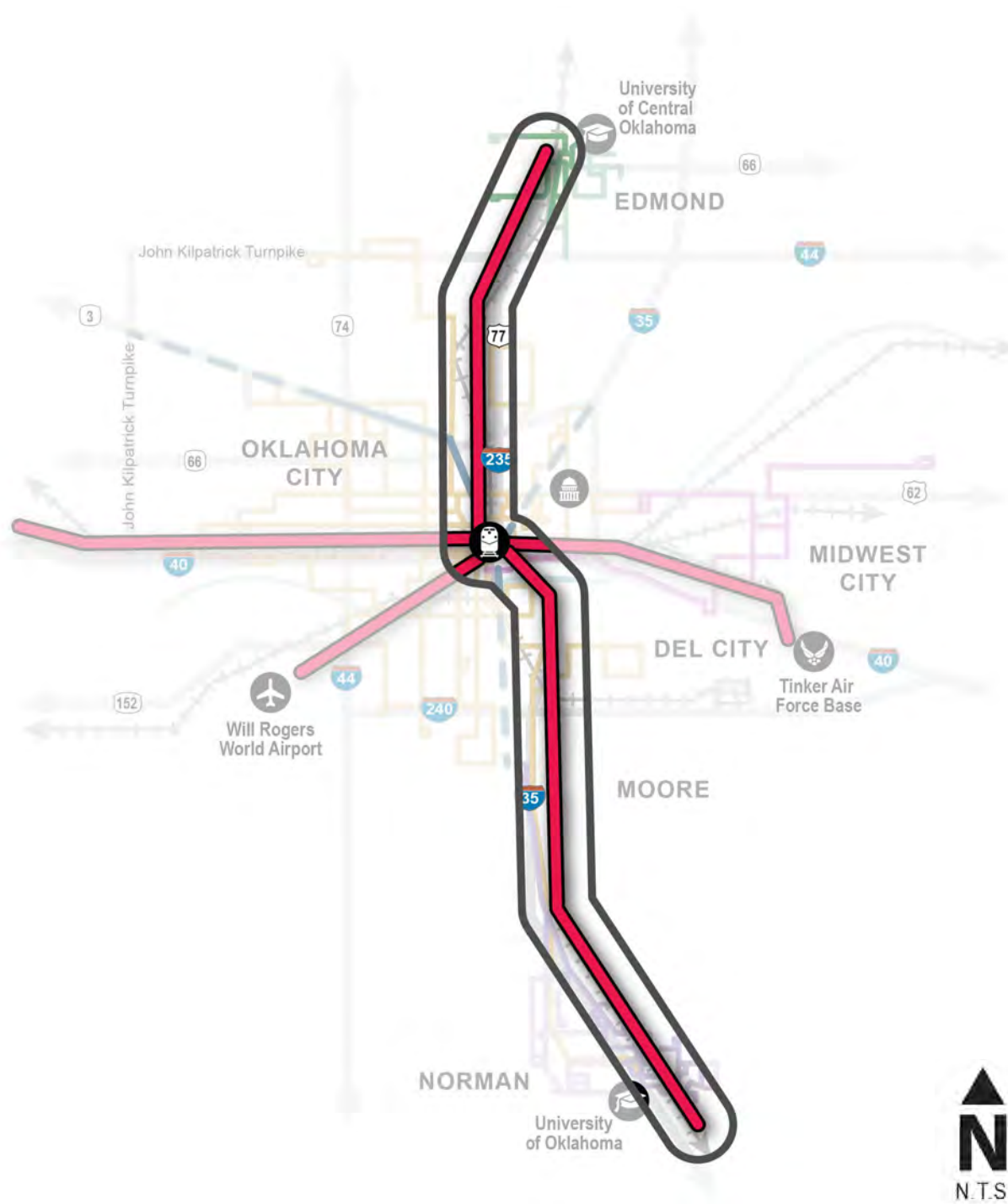


**Consultant
Recommendation:**

Re-assess through
full AA

LEGEND

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North/South Corridor

- Identified in previous study
- Significant analysis completed previously
- Previous analysis still applicable



Consultant Recommendation:

Leverage past study
conclusions
Advance to service and
operations analysis

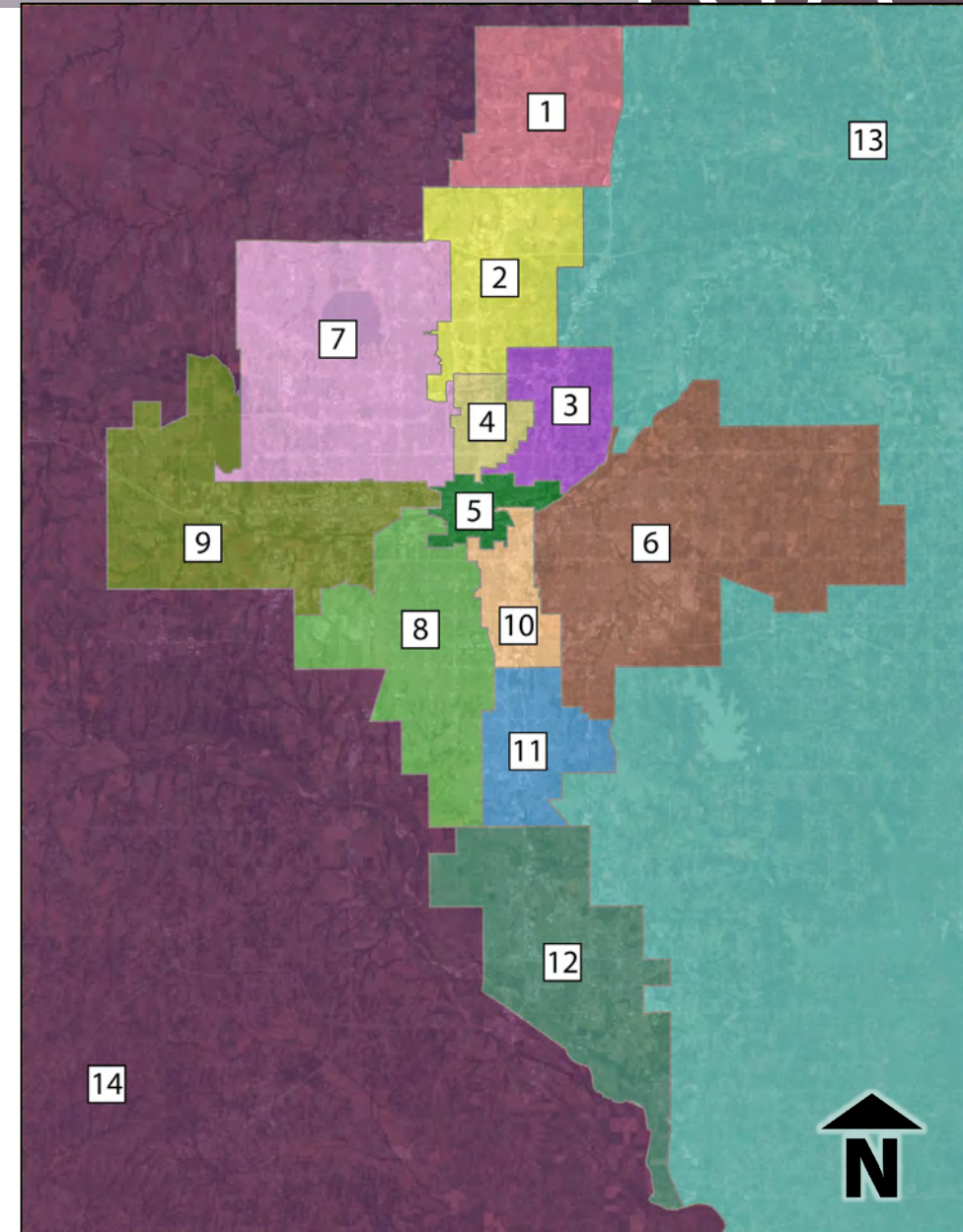


TRAVEL PATTERNS

Submarket Districts

Legend

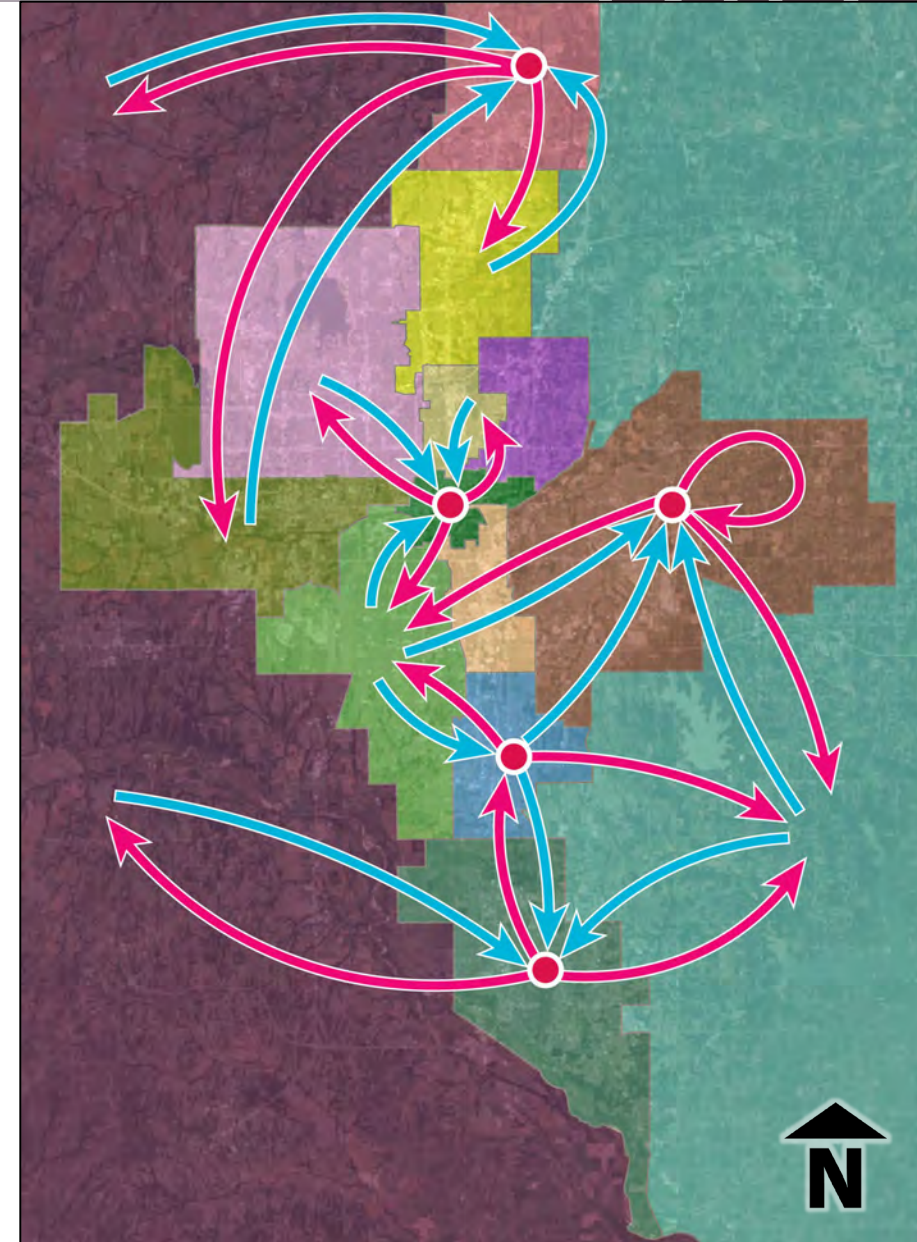
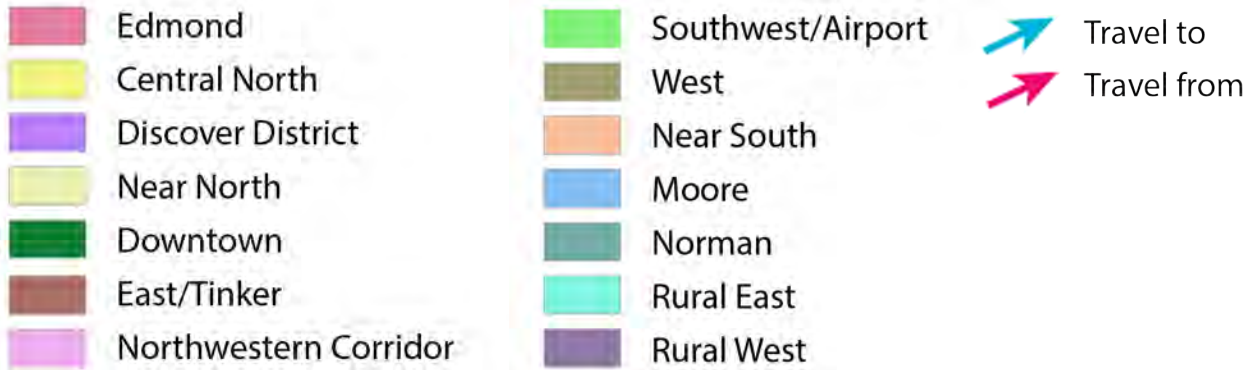
- Edmond
- Central North
- Discover District
- Near North
- Downtown
- East/Tinker
- Northwestern Corridor
- Southwest/Airport
- West
- Near South
- Moore
- Norman
- Rural East
- Rural West



Summary

- Dispersed travel patterns across the region
- Opportunity to target specific markets along the corridor
- Informs placement of stations and corridor alignments

Legend



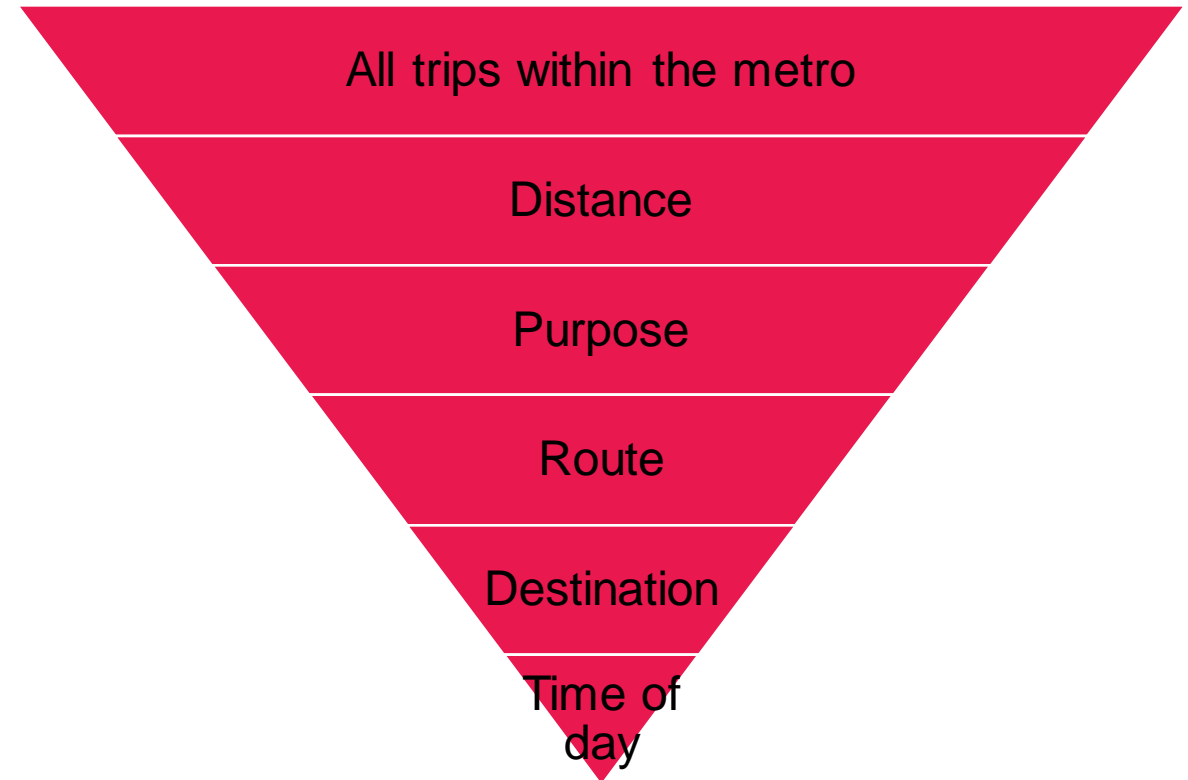
The background is a detailed architectural line drawing of a train corridor. It shows multiple train cars on tracks, with overhead power lines and support structures. The drawing is rendered in a light, sketchy style. A vertical purple semi-transparent bar is positioned on the left side of the image, serving as a backdrop for the title text.

NORTH/SOUTH CORRIDOR

Potential Customers

Using Real World Travel Data to Investigate Rail Market Potential

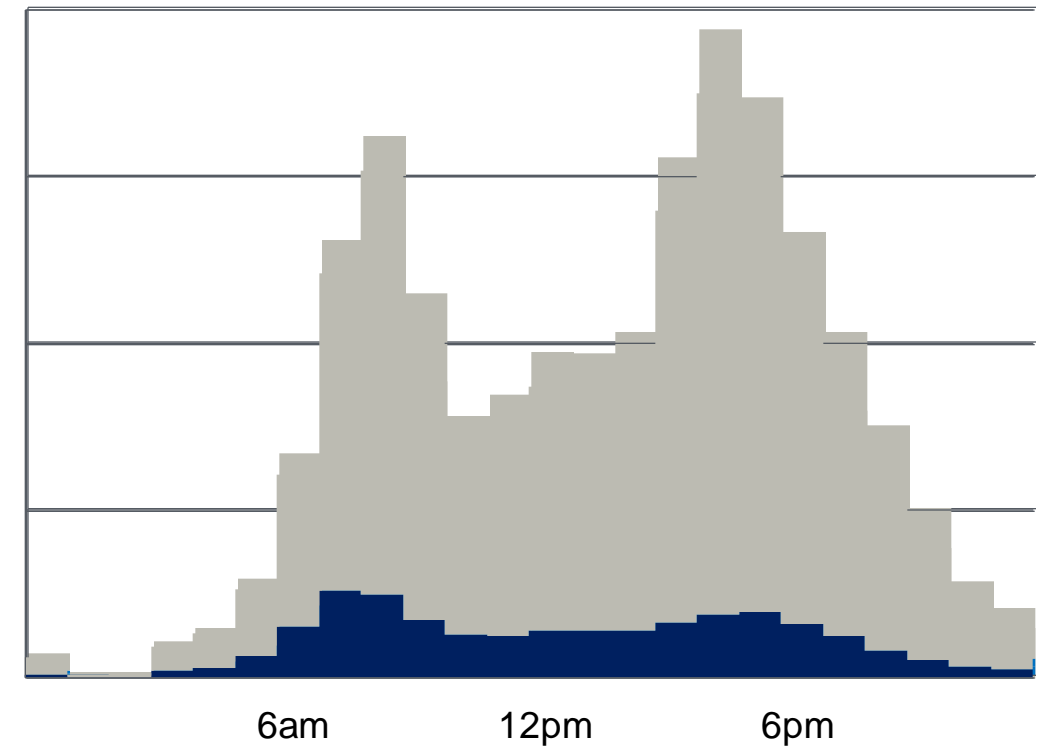
Filter	Parameter
Within	Origin and destination within the metro
Distance	4 – 32 miles
Purpose	Exclude commercial (trucking)
Route	Selecting along parallel highways and major roads
Destination	To tracts within 2 miles of the rail
Time of Day	During typical rail service hours, 5 am to 10 pm



Addressable Market

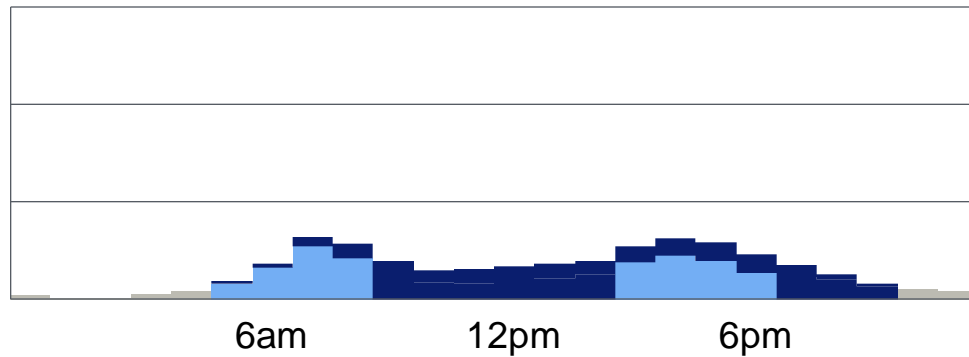
All trips within the Central
Oklahoma metro area

Addressable
Market



Addressable Market

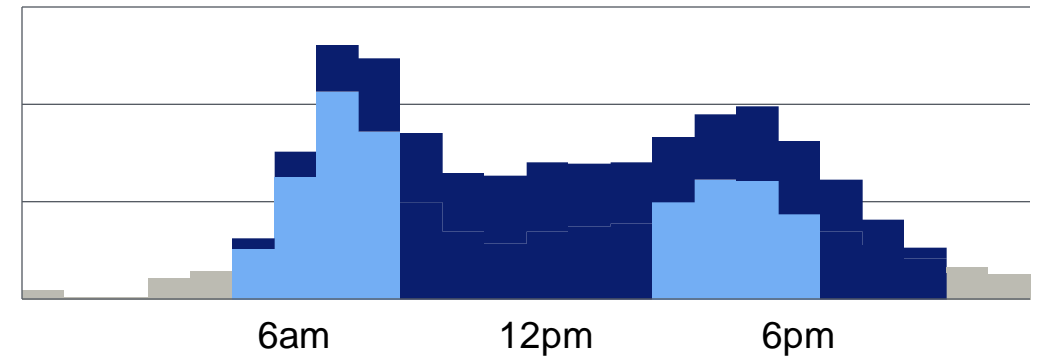
Minneapolis



Metro Transit Northstar

Route Miles	40
Weekday Riders	2,700
Market Capture	1.9%

Central Oklahoma



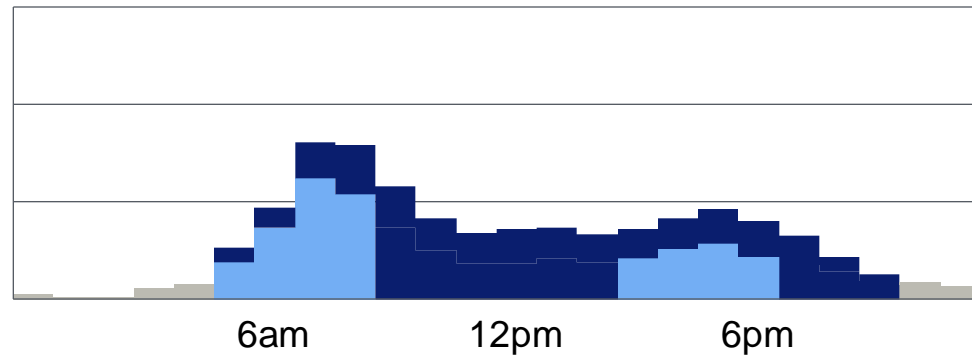
N-S Corridor with Minneapolis' Market Capture

Route Miles	35
Potential Weekday Riders	4,900*
Market Capture	1.9%

*Not a ridership projection

Addressable Market

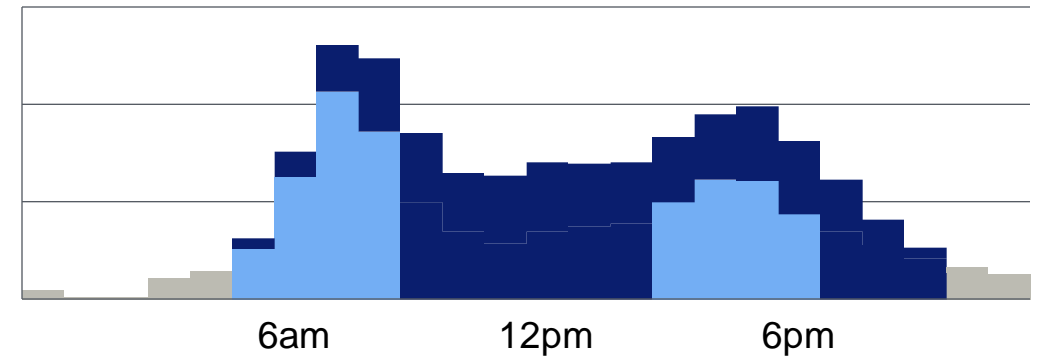
Austin



CapMetro MetroRail

Route Miles	32
Weekday Riders	3,100
Market Capture	1%

Central Oklahoma



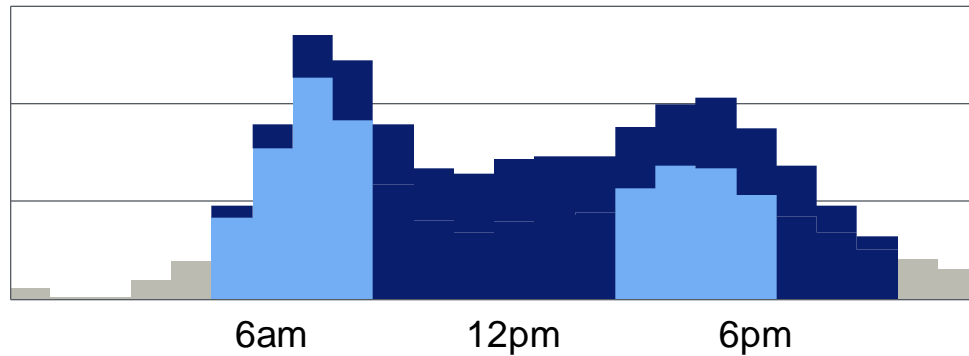
N-S Corridor with Austin's Market Capture

Route Miles	35
Potential Weekday Riders	2,600*
Market Capture	1%

*Not a ridership projection

Addressable Market

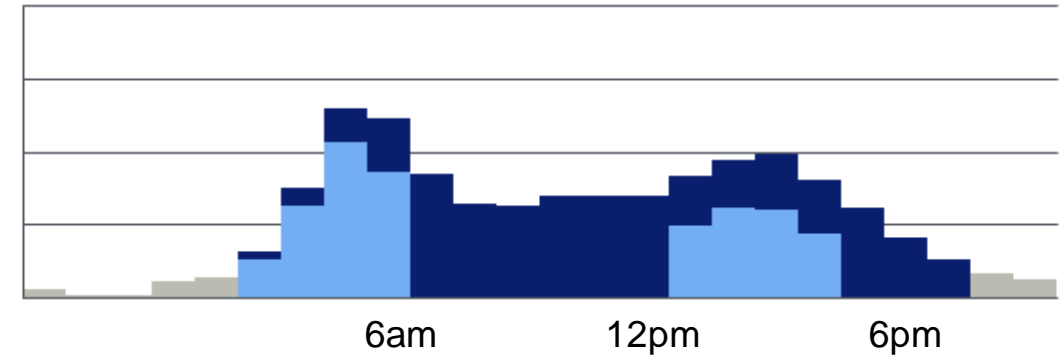
Fort Worth



Trinity Railway Express

Route Miles	34
Weekday Riders	6,300
Market Capture	1.1%

Central Oklahoma



N-S Corridor with Fort Worth's Market Capture

Route Miles	35
Potential Weekday Riders	2,700*
Market Capture	1.1%

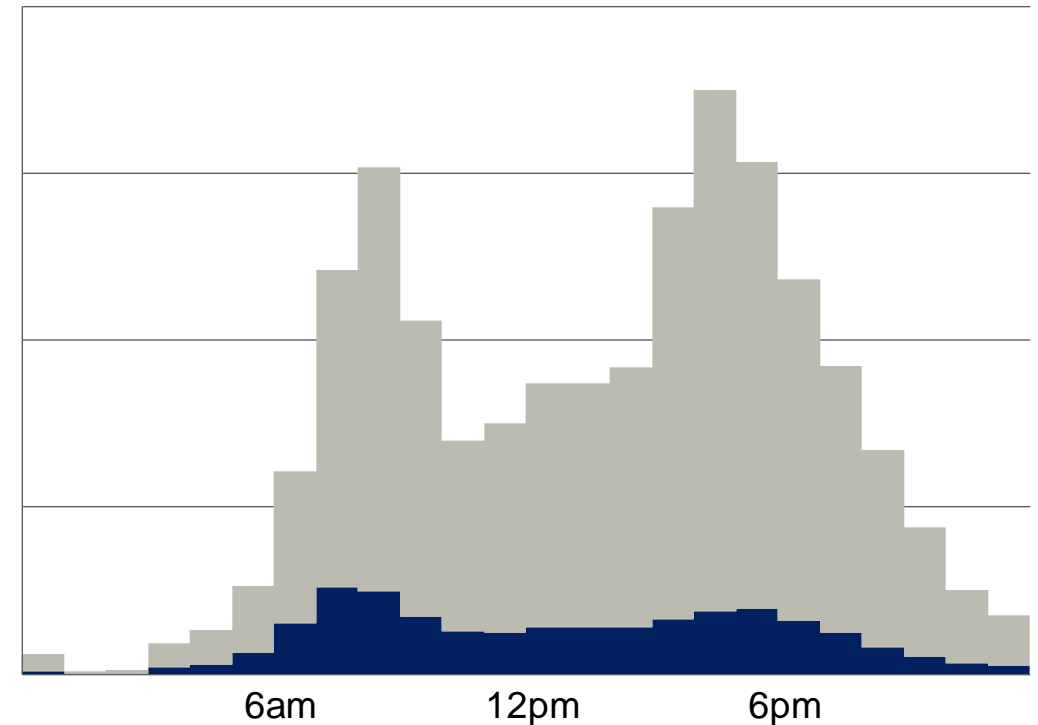
*Not a ridership projection

Addressable Market - Summary

- Clear transit market opportunity exists
- Other regions have shown successes with similar markets
- Capture as many riders as possible while keeping costs reasonable
- Inform the service planning

All trips within the
Central Oklahoma
metro area

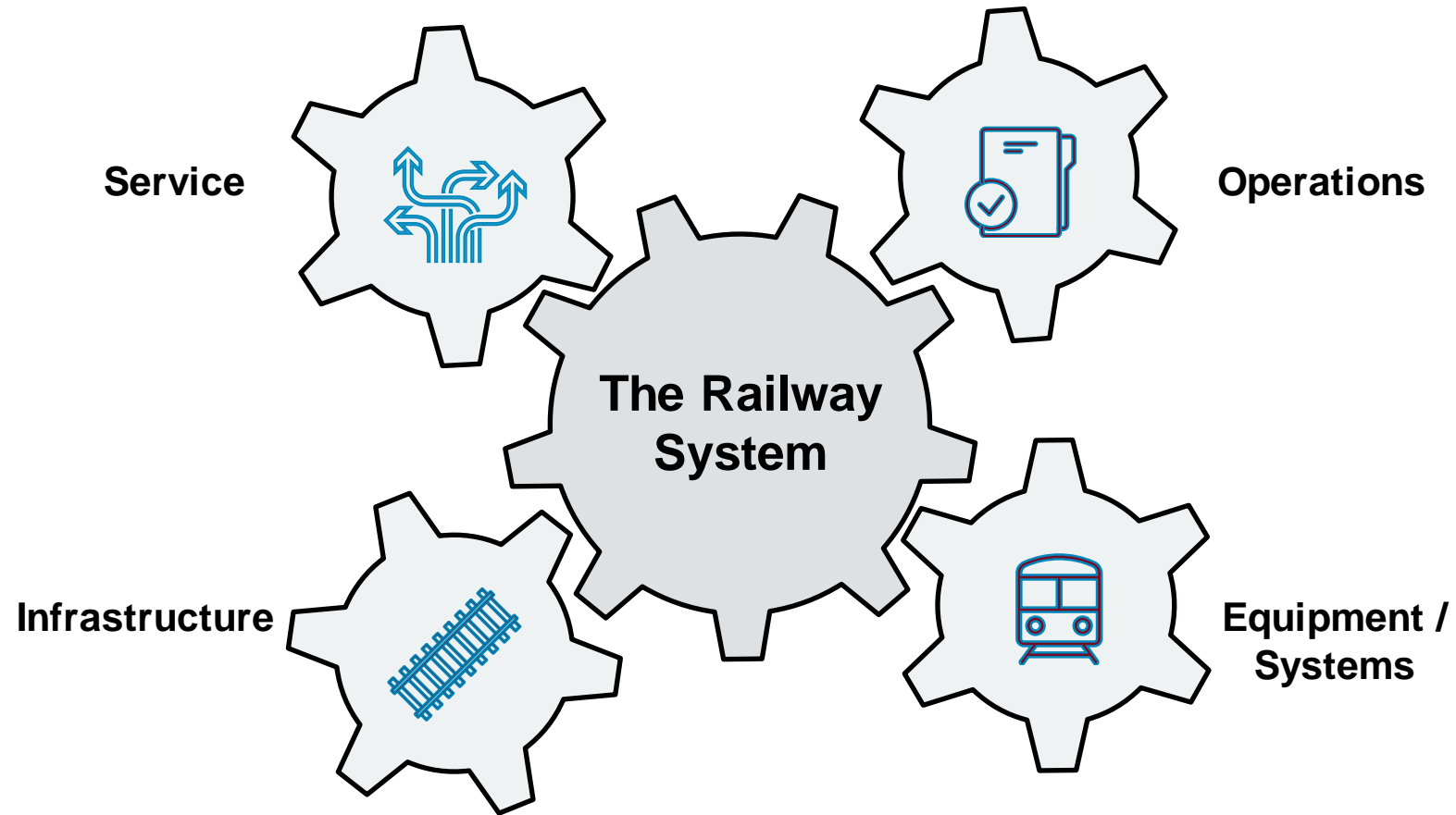
Addressable
Market



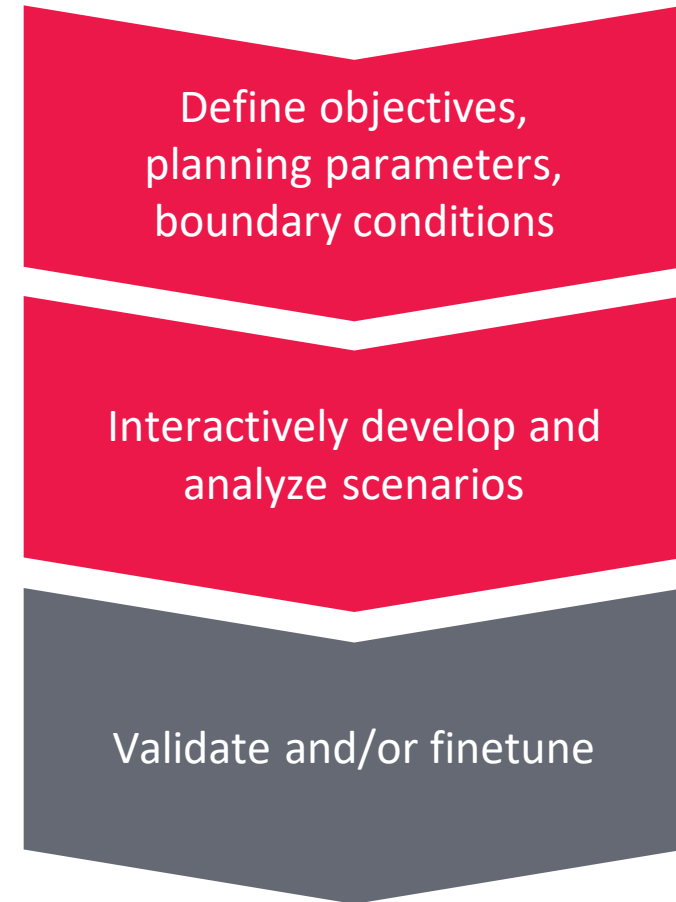
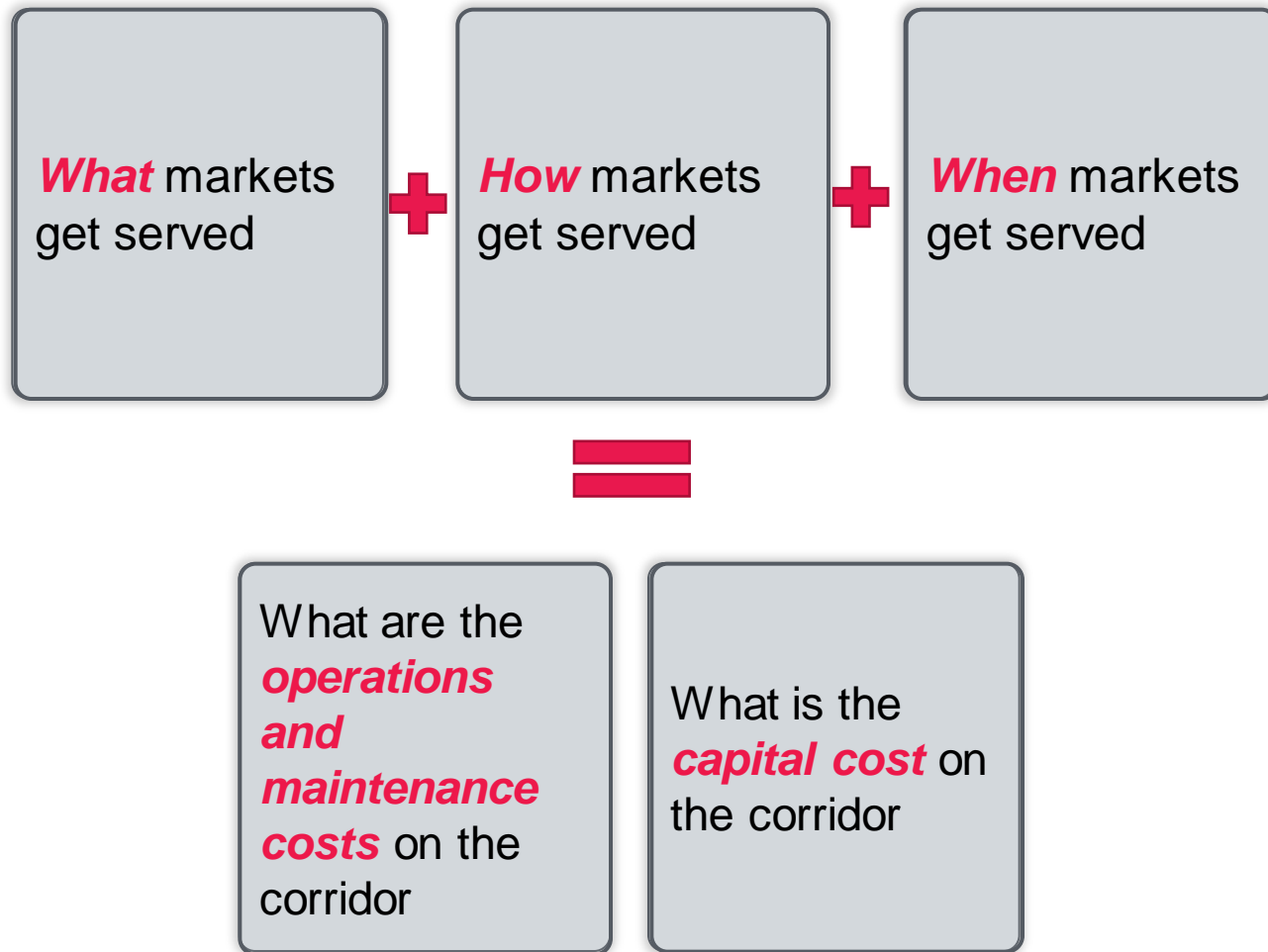


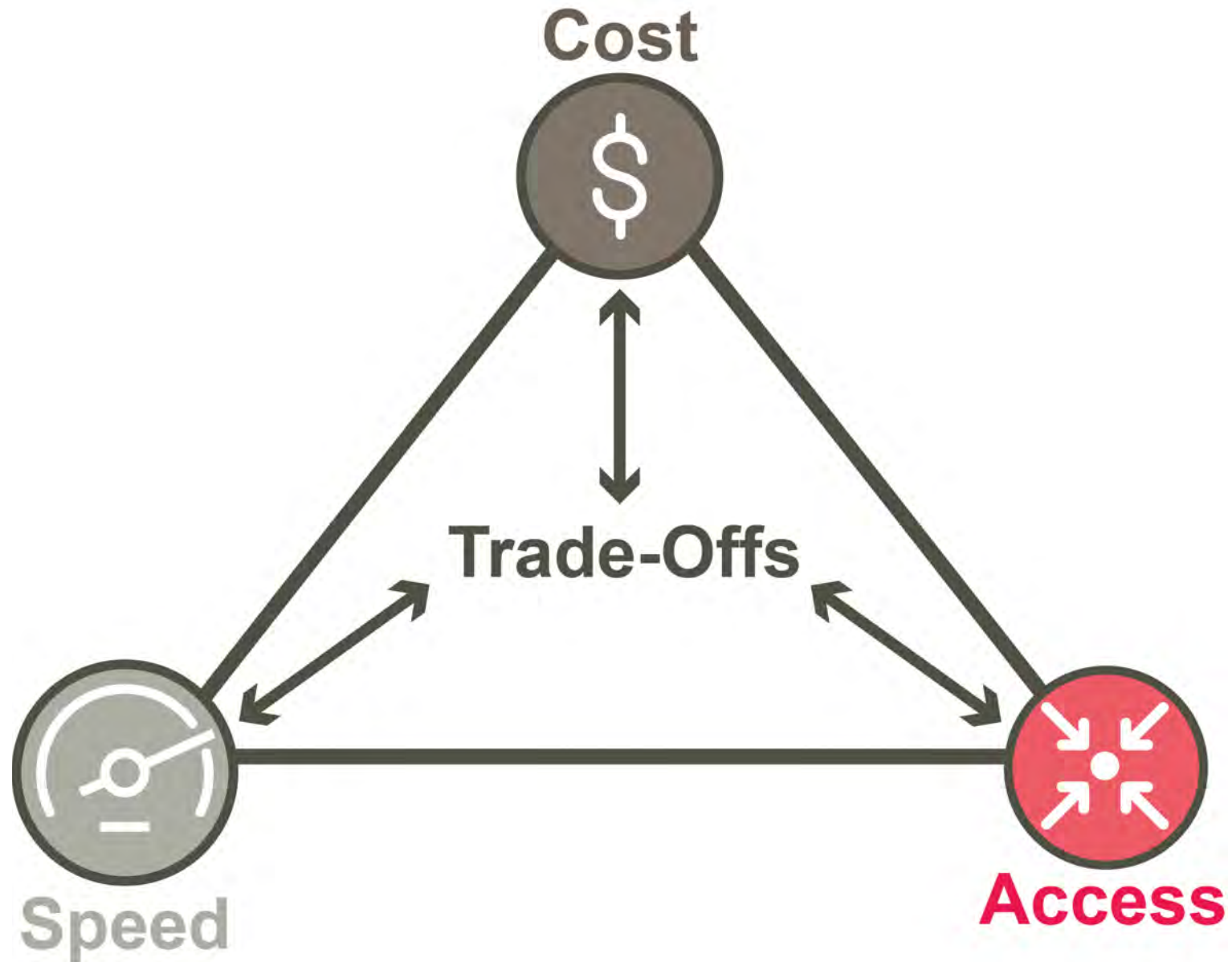
RAIL SERVICE DEVELOPMENT OVERVIEW

Railroad System Components

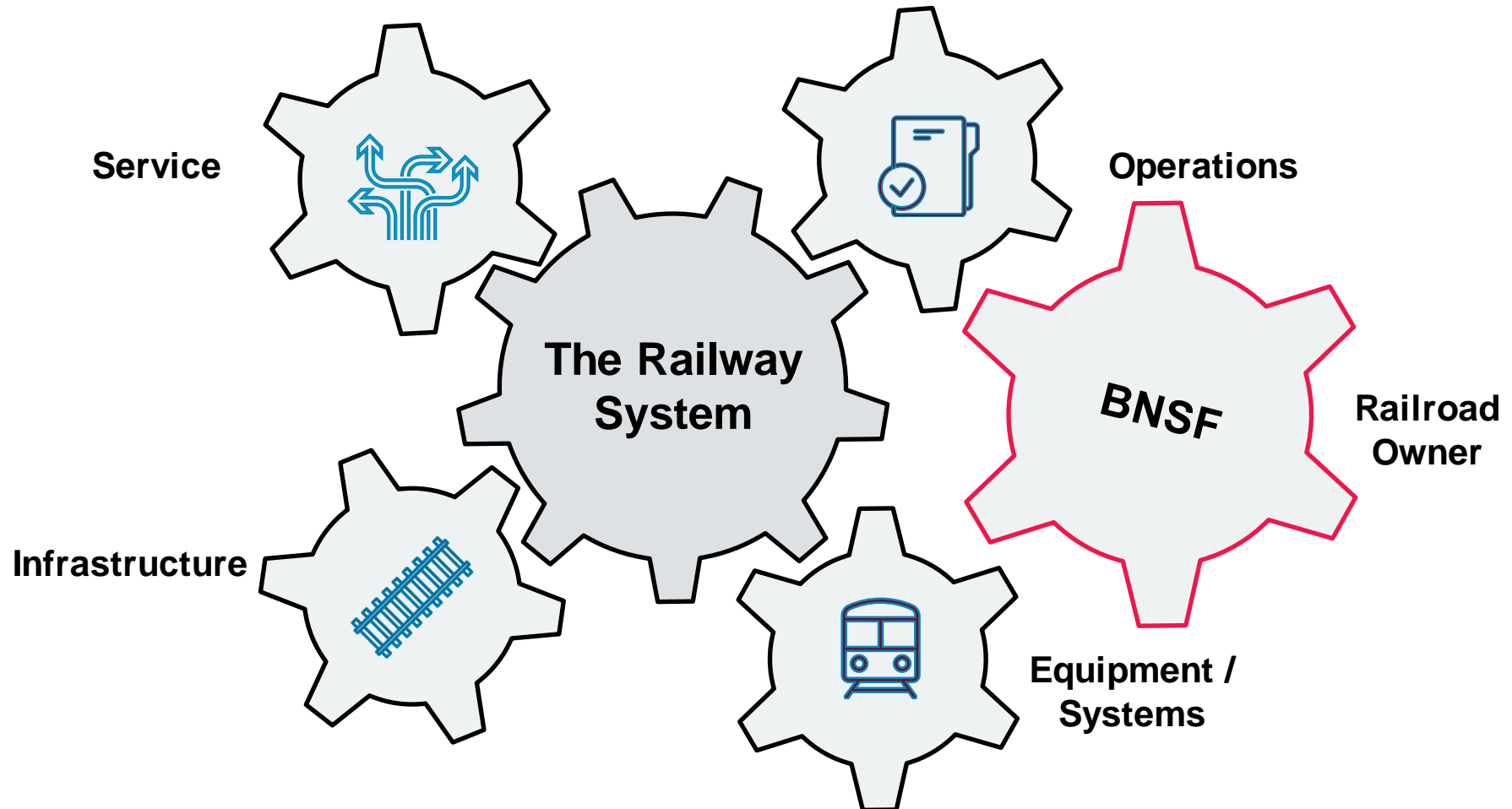



Components of Service Planning





Railroad System Components



The background features a perspective view of a train on tracks, receding into the distance. A semi-transparent purple vertical band runs down the center of the image. Overlaid on the entire scene is a white line-art illustration of a train's mechanical components, including wheels, axles, and structural frames, creating a technical or engineering aesthetic.

RAIL PLANNING CONSIDERATIONS

Examples of service objectives

What travel markets are we trying to serve?

Provide lots of access
points

transit dependent

leisure markets

9 to 5 commuter to OKC

All stations to all
other stations

Edmond and Norman to OKC

special events/OU Football game

non-commute business travel

Universities

How do we serve these markets?

peak-oriented express service

peak direction

weekdays

bi-directional

bi-hourly

all day local service

hourly

special events

30-minute service

weekends

Possible trade-offs of service options

Peak Only

Market:

⬆️ Commute riders

ⓧ All Day riders

Total Addressable Market: Lower

Capital Investment: TBD

Equipment Needs: Low

Equipment Utilization: Low

Operations Cost: Lowest

Time of Day	Trains per hour
AM Peak (6a-9a)	1
Midday (9a-3p)	0
PM Peak (3p-6p)	1
Evening (6p-10p)	0

Half Hourly Local All Day

Market:

⬆️ Commute riders

⬆️ All Day riders

Total Addressable Market: Higher

Capital Investment: TBD

Equipment Needs: Medium

Equipment Utilization: High

Operations Cost: Higher

Time of Day	Trains per hour
AM Peak (6a-9a)	2
Midday (9a-3p)	2
PM Peak (3p-6p)	2
Evening (6p-10p)	2

2015 Half hourly + 15 min peak

Market:

⬆️ Commute riders

⬆️ All Day riders

Total Addressable Market: Highest

Capital Investment: TBD

Equipment Needs: High

Equipment Utilization: Medium

Operations Cost: Highest

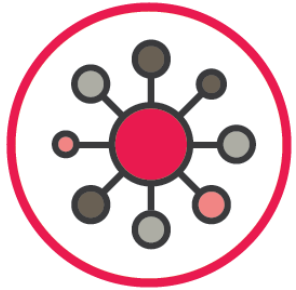
Time of Day	Trains per hour
AM Peak (6a-9a)	4
Midday (9a-3p)	2
PM Peak (3p-6p)	4
Evening (6p-10p)	2

Maintenance Facilities Considerations

Rail Operations Equipment Needs	Low (peak only service)	Medium (all day half-hourly service)	High (all day half-hourly, 15-minute peak service)	Downtown Streetcar
Maintenance Facility				
 Building Size	~ 150' x 130'	~ 150' x 300'+	~ 300' x 250'	~ 150' x 200'
 Lot Size	~ 3 acres	~ 8 acres	~ 10 acres	~3 acres
 Vehicles Maintained	4 -12	8 - 32	14 - 56	--

Considerations for Yard location:

- Non-revenue moves
- Trip times
- Productive use of crew and equipment
- Revenue hours per day
- Balance between north and south service levels



**Mobility &
Connectivity**



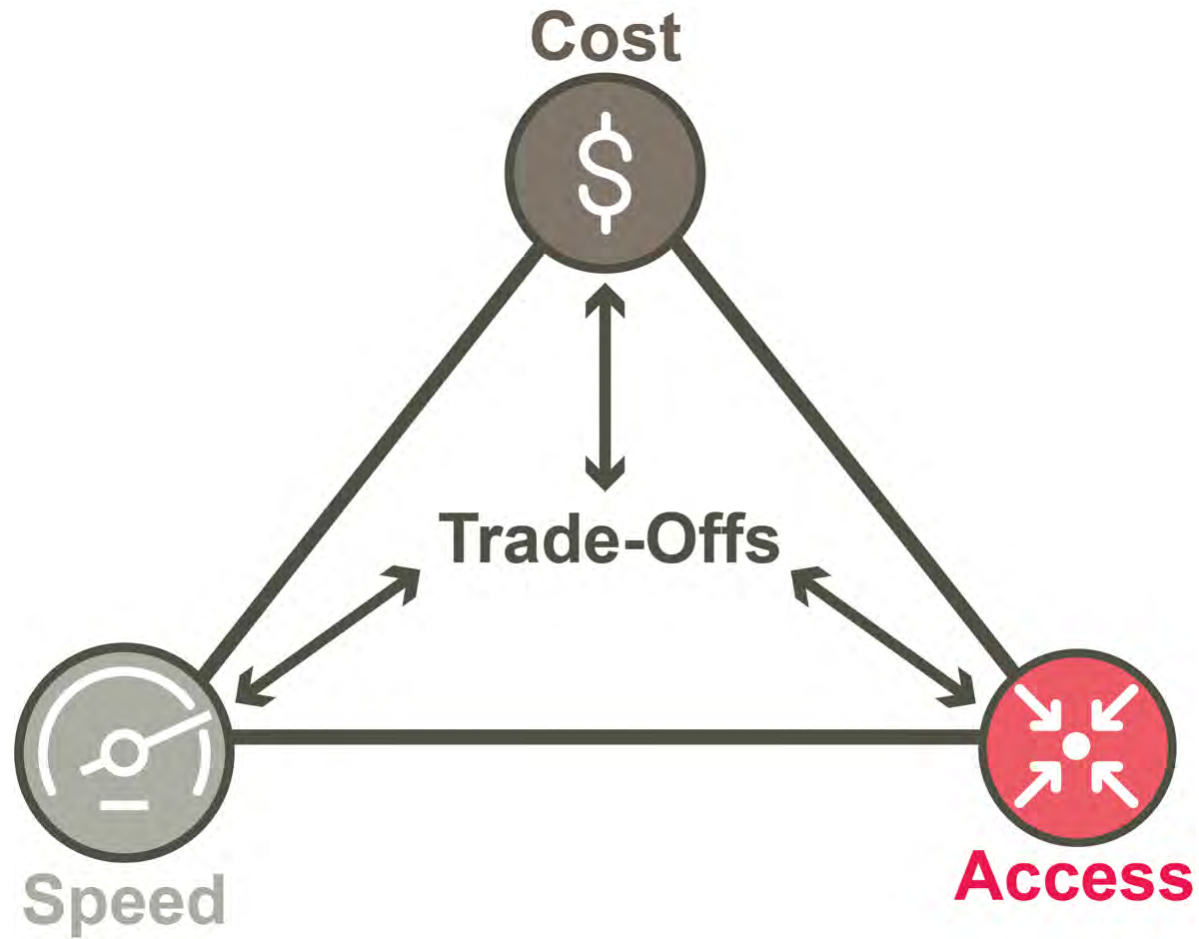
**Sustainability &
Viability**



**Equity &
Accessibility**

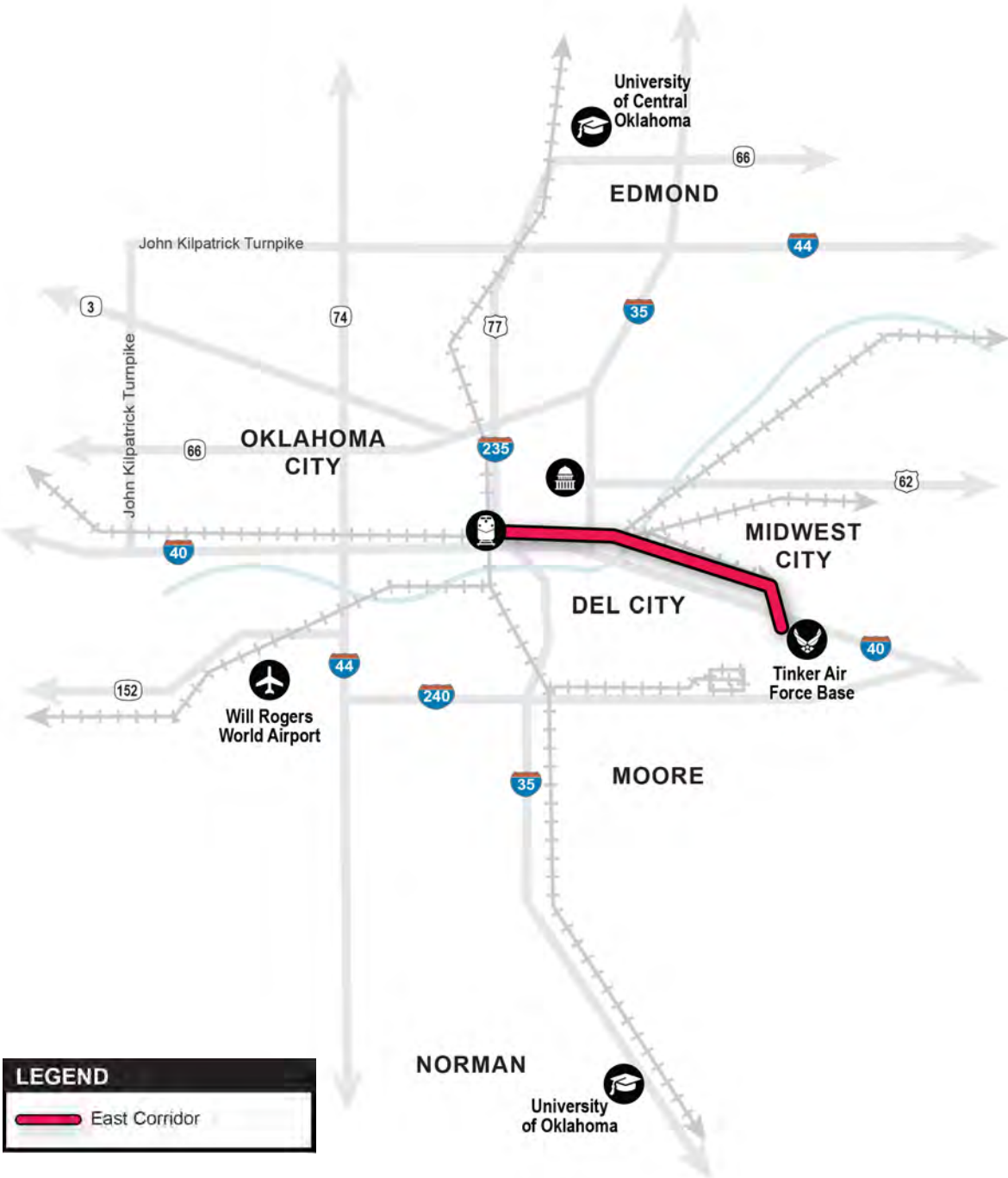


**Economic &
Workforce
Development**

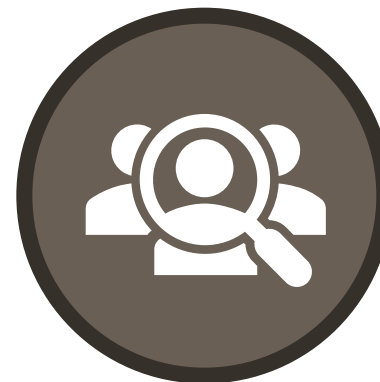


The background features a photograph of a train on tracks, viewed from a low angle looking down the length of the train. A semi-transparent purple overlay covers the right two-thirds of the image. On the left, there is a white line-art technical drawing of a train car, showing details like windows, doors, and roof structures. The text "EAST CORRIDOR" is centered in white, bold, sans-serif font across the middle of the image.

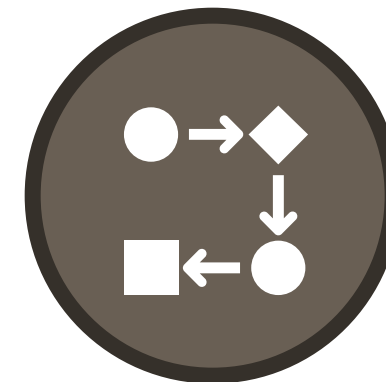
EAST CORRIDOR



What is being studied?



Demographics



Travel
Patterns

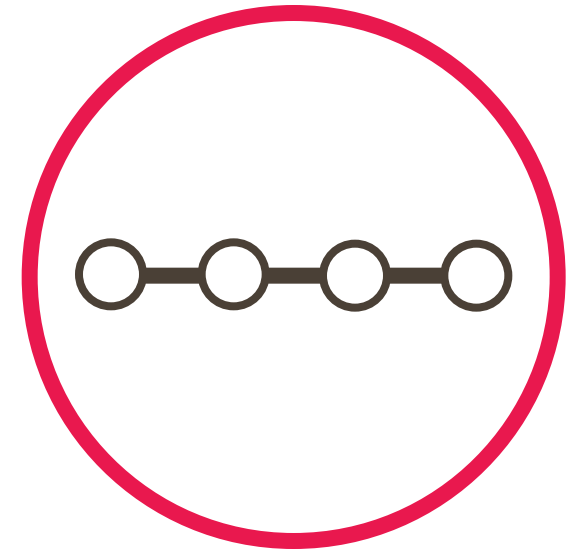
What still needs to be determined?



Options



Mode

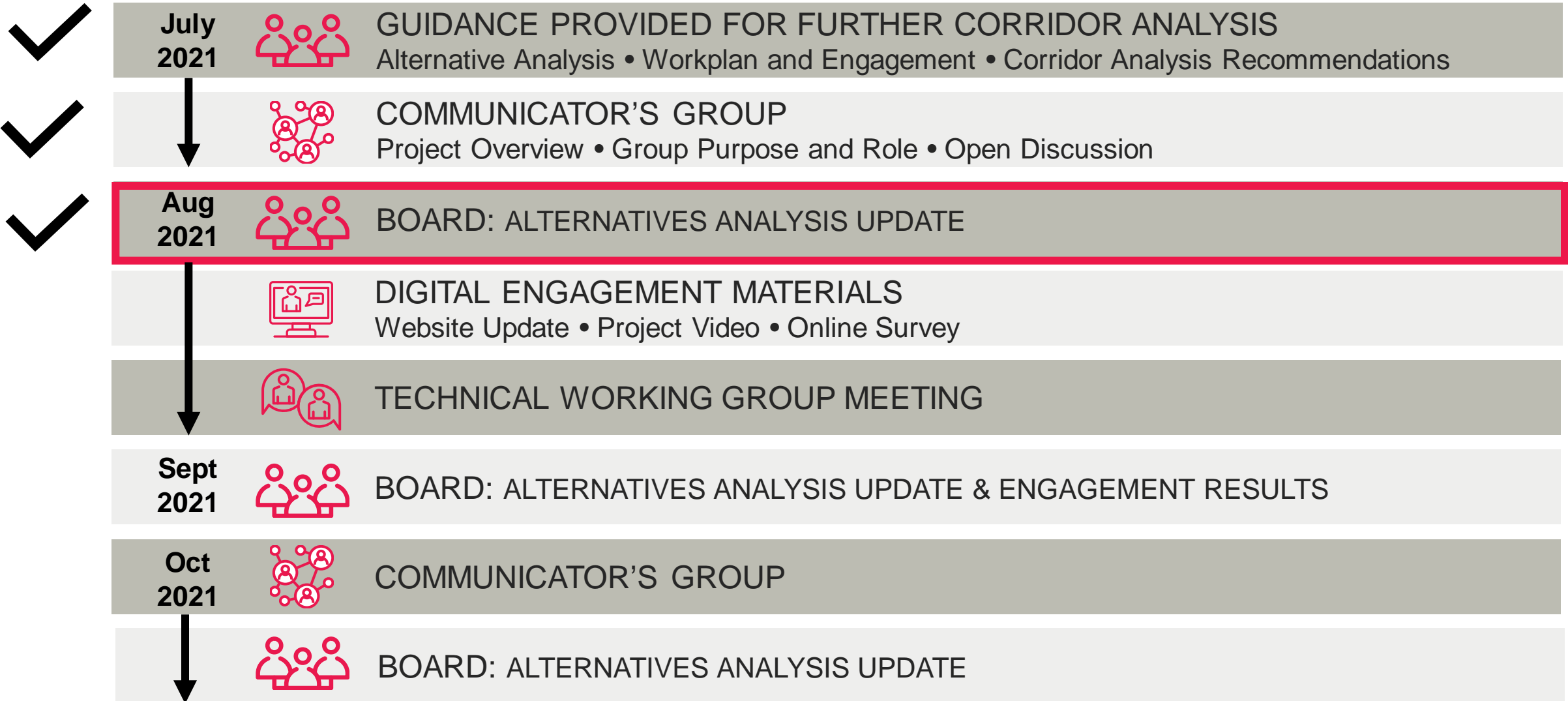


Alignment



NEXT STEPS

Proposed Work Plan



The background features a stylized line-art illustration of a train and its tracks. The left side of the image is white, showing a close-up of a train car's side with a window. The right side is a dark purple gradient, showing a perspective view of train tracks receding into the distance with a train car visible on the tracks.

OPEN DISCUSSION

The background features a detailed line drawing of a train station. A train with multiple cars is positioned on the tracks, extending into the distance. The tracks are flanked by station infrastructure, including overhead power lines and support structures. The entire scene is rendered in a light purple or lavender hue, creating a soft, monochromatic effect. The text 'THANK YOU!' is superimposed over the center of the image in a bold, white, sans-serif font.

THANK YOU!