Transit Planning I - Foundations

Conducted for: The National RTAP Tribal & Rural Transit Mini-Conference, October 15, 2025

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Session Objectives

- Understand the six-step transit planning process (3 steps in this session)
- Build culturally grounded engagement strategies
- Strengthen committees and update transit plans
- Identify common challenges and solutions

Why Transit Planning Matters for Tribal and Rural Communities

- Tribal Transit supports sovereignty and self-determination
- Access to healthcare, education, and employment
- Strengthens eligibility for state and FTA programs

What role does transit play in your community?

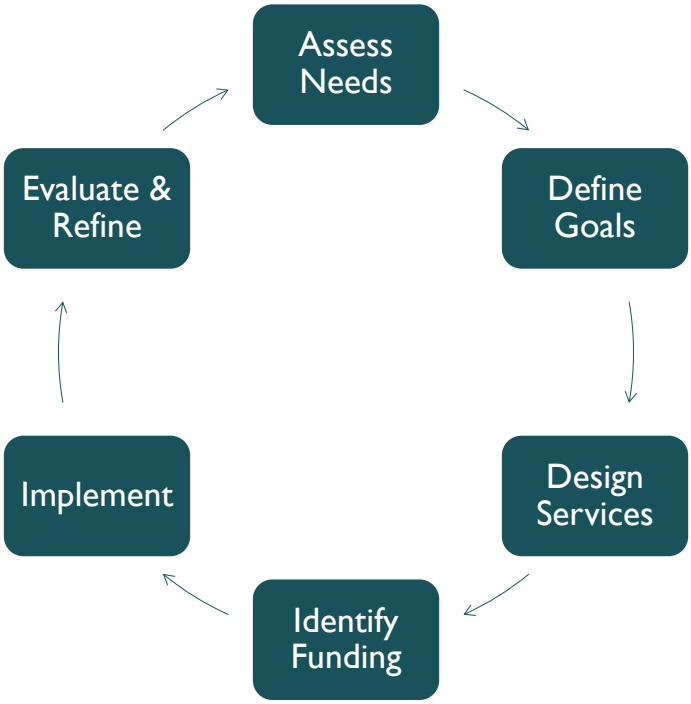
What we will cover today

The six-step planning cycle

Transit I – first of the three steps

Transit II – final three steps

The Six-Step Planning Cycle



Embrace Change

Demographics, technology, and communication have made our world very different from just ten years ago.

Rural areas have changed, yet often transit stays the same.

If transit does not adapt and change, then transit runs the risk of becoming...

Irrelevant in the Community

"Oh, isn't that the bus for the elderly and disabled."

"There's a bus service here? I lived here all my life and didn't know there was a bus."

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Step 1 – Assess Needs – Understanding Mobility from the Ground Up

- Combine data and community voices: Census/ACS, on-board surveys, listening sessions.
- Map key trip types (medical, work, school)
- Identify barriers (cost, distance, eligibility)

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Community Engagement – The Heart of Needs Assessment

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Community Engagement & Methods

Principles
- Listen before designing routes/service
- Meet people where they are
- Respect Tribal protocols and provide incentives

Methods
- Listening Sessions
- Ride-Along
- Pop-Ups
- Local Radio
- School Events
- Social Media
- Partner with Clinics, Colleges, etc.

Transit Committee - Purpose

- Advisory body – not a formal governing board
- Offers guidance, reviews data, and recommends improvements.
- Advises on service changes, schedules, and priorities.
- Helps identify unmet needs and funding opportunities
- Promotes community outreach and engagement

- The Tribal Council or Governing Board retains final authority over policy, budget, and contracts.

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Committee Recruitment & Retention

- Representatives from:
- Tribal departments (e.g., health, education, elders programs)
- Riders or community members
- Partner agencies (e.g., workforce, social services)
- Transit staff (non-voting)

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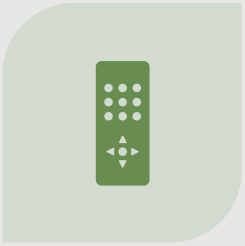
Map Your Engagement Channels

WHO DO YOU ENGAGE?

WHO IS MISSING?



IDENTIFY 2-3 NEW CHANNELS (PANTRY, CLINIC, SCHOOL NIGHT)

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Transition From Listening to Action

- Turning What You Heard into Clear Goals

Once you've gathered stories and data, the next step is to *translate* those needs into goals.

- This is where your planning team or transit committee moves from listening to defining the direction forward.

Community Voices → Identified Needs → Clear Goals

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Step 2 – Define Goals: Building the Roadmap Forward

- Translate community priorities into goal statements.
- Use the SMART framework (Specific, Measurable, Achievable, Relevant, Time-bound).
- Prioritize goals collaboratively with your committee.
- Link each goal to a future metric (trips per hour, on-time performance, etc.) - We will spend time with metrics in Step 6.

Example: Community need: Riders can't reach jobs after 5 p.m.
Goal: Extend weekday service to 8 p.m. within one year.

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Interactive Moment – From Needs to Goals

- Let's Practice:
- Identify one common need your riders have shared and restate it as a goal using the SMART format.
- For example, if your community says, 'We need weekend service,' your SMART goal might be:
  'Add Saturday service from 9 a.m. to 3 p.m. by next summer to support shopping and employment trips.'

What's one goal your agency could define this year that reflects what your riders have been asking for?

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Community + Committee = The Heart of Planning

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Step 3 – Service Design

- Foundations
- Service Design Options
- Fixed Route Best Practices

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Introduction to Service Design:
Making the Right Choice?

The most appropriate service for the need

The right choice:

- Maximize ridership and reduce costs.

If you make the wrong choice the result will be:

- low ridership and high cost per trip
- your system will be irrelevant, and …

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Understand Your Service Area

Get out in the community and drive around

- Get very familiar with the service area
- Understand your attributes and challenges

Determine the population density

Identify transit dependent populations

Major destinations

Don't drive like him!

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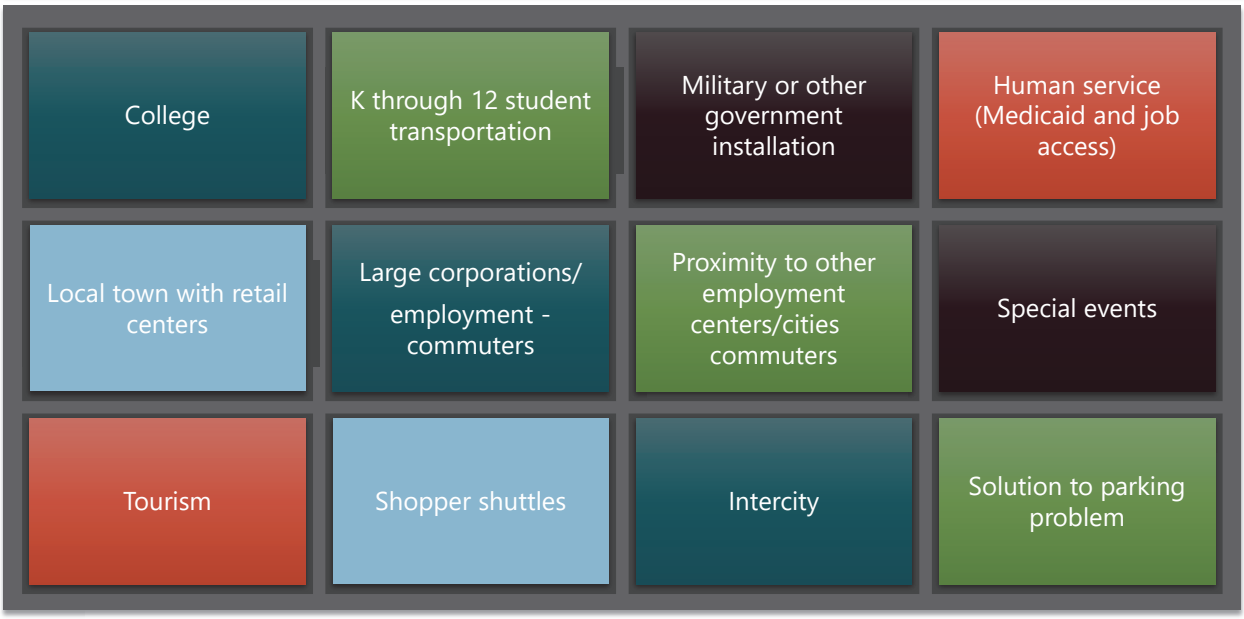
What are Your Service Area Attributes?

Consider the transit attributes (product lines) of your service area:



What are your Service Area Challenges

- Great distances between origins and destinations
- Hiring staff in remote areas – small labor pool
- Low density communities yields low productivity
- Extreme poverty and needs
- Weather and terrain extremes

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Your Transit Attributes and Challenges

Take five minutes to list your transit attributes and challenges

Are you taking advantage of your attributes and dealing with your challenges?

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Service Design: The Right Service for the Need

Microtransit On-Demand

- Small cities – It may be time to ditch day in advance demand response and move to real time, on-demand with a productivity of 2-6 one-way trips per hour in most cases.

Fixed Route

- The standard service around the world has its place in rural and small urban transit. Produces the highest productivity under certain conditions.

Hybrid and Flexible Services

- These services are a cross between fixed route and demand response. A variety of hybrid designs can be relatively productive in remote rural areas.

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Microtransit: The Future is Here

The service provides faster response and a better-quality ride than day in advance demand response for **virtually the same cost**.

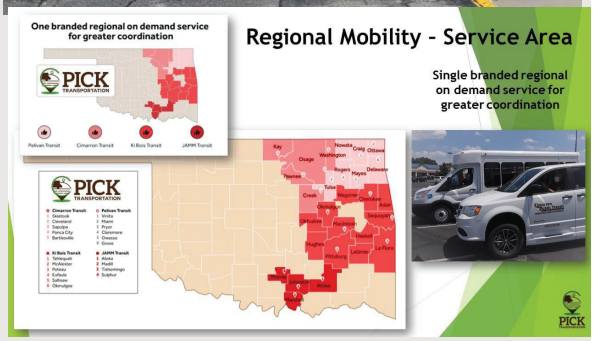
Now through microtransit technology, this service is on a new level and service quality is even better. Riders can still call to get a ride.

CDLs not required for **small buses/minivans/sedans**

Most appropriate for lower density, small, well-defined zones of a few square miles

Seeing real successes in small rural cities under 25,000 population, **with significant destinations** in towns and cities as diverse as Bastrop and San Antonio for example

Productivity – Typically, 2-6 one-way trips per hour, depending on the service area



Bastrop, Texas: CARTS *NOW*

CARTS NOW Microtransit App Interface

- Population 10,000 | 7 sq. mi.
- *Significant destinations*
- *2 vehicles | 10-12 hours per day each*
- *15-minute response time all day*
- *Productivity of between 3 – 4 one-way trips per hour*
- ***Over 100 riders per day***

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Fixed Route is Old School

- Fixed route can yield the **highest productivity and the lowest cost** per trip, consequently transporting the most passengers.
- Fixed route is used throughout the world and will continue to be used, until buses can fly.
- ADA complementary paratransit is required.
- But in rural areas you must pick your spots:
  - » Long-distance routes
  - » Small cities starting at 25,000 population (typically) unless significant transit attributes
- **But fixed route must be done right.**

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Small City Fixed Route Guidelines (some apply to Demand Response too!)

1. **Maximize Use of Fixed-Route** – Mainstreaming is the intent of the ADA.
2. **Minimum Density** – Fixed-route service works best in communities of at least 1,000 persons per square mile, as well as areas with major destinations or tourism
3. **Service Days and Hours** – Commuters, shoppers, students and others all need service at the right time. When the service is provided is as important as where. At a minimum, 6:30 or 7:00 a.m. to 6:00 or 6:30 p.m., Monday through Friday.
   - » Riders prefer later hours
   - » Saturday typically generates 1/2 weekday ridership
   - » Sundays typically generates 1/3

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Even More Fixed Route Guidelines

4. Simplicity – Do not try to do too much with one route. Some routes should be origin based and some should be destination based.

5. Timing Points – Where stops are less than 3 – 4 minutes apart, timing points should be every 7 – 8 minutes, not every stop. DON'T EVER RUN EARLY, EVER!

6. Headways – The time between buses going in the same direction on the same route. Going from hour headways to ½ hour headways is great, but it doubles the cost.

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There Are 16 Guidelines but for Today, Only 9!

7. Dependability – Every day of service without fail, every time without fail. If customers can't depend on the service for work, school or health care appointments, they won't use it.

8. Looking Good / Marketing – While services need to be professionally marketed and promoted, the best advertising is good looking buses and professional drivers. Consider (re)branding.

9. Accessible Bus Stops and Pathways – Care must be taken in selecting bus stops for **safety** and accessibility.

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Okay, There is One Caveat

Americans with Disabilities Act (ADA) Paratransit:

The ADA requires any system operating fixed route to either provide complementary paratransit for customers unable to use fixed route system or operate a flex route.

Going from paratransit to fixed route: Overall there will be fewer paratransit riders as most will be able to use fixed route.

This service requires a stringent eligibility process to ensure only those that can't ride fixed route may use it.

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Hybrid Services

- A family of scheduled services – often a cross between fixed route and demand response.
- Requires low densities - suburban or small town
- Most appropriate for:
  - Long routes with low population density
  - Isolated rural areas
  - Small towns

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Flex Routes (Route Deviation)

- Blends the predictability of a fixed route with the accessibility of demand-response.
- Buses operate along a published route and schedule **but can deviate off-route (typically up to ¾ mile)** to pick up or drop off passengers who schedule in advance.
- After completing a deviation, the vehicle resumes its regular route and schedule.

Flex Routes (Route Deviation) Advantages

- Serves riders beyond walking distance from bus stops.
- Combines demand-response flexibility with fixed-route productivity.
- Can reduce or eliminate the need for separate paratransit coverage IF deviations are available to everyone.
- Well-suited to rural or Tribal areas where homes and destinations are dispersed.

Flex Routes (Route Deviation) Challenges

- **Schedule Reliability:** Need to limit the number of deviations per trip or include buffer time.
- **Rider Awareness:** Market it clearly as "flexible fixed-route service."
- **Driver Complexity:** Train drivers in time management and communication with dispatch.
- **Data Tracking:** Monitor deviations per run and their impact on travel time and cost.

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- Route deviation is a bridge between fixed-route and demand-response service. It provides flexibility where full coverage isn't feasible, especially in areas with long distances between homes or small clusters of riders.
- If your community says, "I can see the bus, but it doesn't come close enough," this model can be your solution.

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Peer Sharing

What is working in your community?

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Resources

- Transit Manager's Toolkit | National RTAP
- Interest in Shared-Use Mobility Services in Tribal Communities | UGPTI (Upper Great Plains Transportation Institute)
- TCRP Report 154: Developing, Enhancing, and Sustaining Tribal Transit Service: A Guidebook. Developing, Enhancing, and Sustaining Tribal Transit Services: A Guidebook | The National Academies Press
- 6-Step Figures adapted from *Six Steps in the Transportation Planning Process*, Fabio Borghetti, et.al

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Closing and Thank you!

- Questions before we adjourn?
- See you for Transit Planning II - Implementation

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