

The background of the top half of the page features a semi-transparent map of New Jersey on the left and a close-up of an electric vehicle charging cable and connector on the right. The title 'eMobility PLANNING TOOLKIT' is overlaid on this background.

eMobility PLANNING TOOLKIT

A guide for local leaders on how to identify the transportation needs and preferences of residents to develop thoughtful **electric, shared-use mobility** solutions.

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NEW JERSEY
DEPARTMENT OF
ENVIRONMENTAL
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Introduction



Access to safe, reliable, convenient, and affordable transportation is fundamental to community prosperity. Engaging with people who live, work, and enjoy the areas affected by a transportation decision early in the planning process can help foster trust between municipal leaders and community members. This is especially important for marginalized communities that have historically been left out of transportation decision-making processes.

The eMobility planning toolkit helps local leaders identify transportation needs and preferences of residents through data analysis and meaningful engagement. This input, along with continued engagement, can then be used to develop thoughtful, community-driven solutions. Throughout the toolkit, this process will be referred to as a community transportation needs assessment (CTNA).

This toolkit is inspired by the [Needs Assessment Implementation Toolkit](#) used for the Clean Mobility Options program established by the California Air Resources Board.





Community Transportation Needs Assessments: Going beyond the data.

A CTNA is focused on meaningful involvement with communities, going beyond the traditional, data-driven transportation planning process. It relies on diverse and inclusive engagement methods that strive to attain full representation from the community in order to garner residents' perceptions, understanding, and needs related to mobility. The results of the CTNA may indicate that the community could benefit from shared transportation programs, such as carshares, microtransit, bikeshares, and

shuttle services. These programs alleviate traffic congestion and connect residents to jobs, educational opportunities, medical services, and other resources by filling mobility gaps and complementing mass transit. Additionally, using zero-emission vehicles for these shared transportation programs – *a concept often referred to as eMobility* – helps improve air quality in communities that are overburdened by environmental and health stressors.

QUESTIONS TO GUIDE YOUR ENGAGEMENT & PLANNING

- What is the existing transportation system in the community and who has access to this system?
- Which overburdened or underserved groups need to be prioritized and what partners could help reach these groups?
- What barriers are preventing travel or access to work, education, health care, grocery stores, entertainment, and recreation destinations?
- What would be the main concern when thinking about transportation inside the community and connections outside of the community?
- Does transportation data reflect the mobility patterns of the community? If not, why? What are the main gaps that are shown through the data and felt needs?
- Could eMobility be a potential solution to help fill these transportation gaps? Which model or combination of models would the community prefer most?





How to Use This Toolkit

This toolkit is broken down into steps to guide your CTNA and project planning. Each step contains subsections with various considerations, resources for each, and questions to reflect on as you work through this process.

STEP 1

Creating a Baseline

Gather and analyze existing transportation, equity, and demographic data to understand the characteristics of your community.

STEP 2

Engaging the Community

Apply several approaches for meaningful community involvement to gain deeper insight to the transportation gaps, needs, and preferences of residents.

STEP 3

Developing Solutions

Use the insight gathered from Steps 1 and 2 to frame ideas for potential transportation solutions, learn about practical steps to implement, and continue engagement to keep the community involved in the planning process.



General Resources

Each Step of the toolkit includes links to data and mapping tools to assist you. This section focuses on general resources for transportation planning.

New Jersey's Metropolitan Planning Organizations (MPOs) are a great starting point for your project, as they have transportation data and research specific to your region. Find links to each MPO's website in *General Resources: Transportation Organizations*.



STEP 1

Creating a Baseline



Start with identifying the geographic area and communities where you will be conducting your needs assessment and planning activities. Focus on both people and place, and understanding their existing transportation context and conditions, which could include the accessibility, reliability, and affordability of these services among others.

Most of this step will involve gathering background information and research on the community, setting the stage for your needs assessment and allowing you to tailor the engagement activities in Step 2 for your community.



DEP and the New Jersey State Office of Innovation recently developed the [Transportation Needs Index](#), a tool that can help you identify where transportation gaps exist, especially in historically underserved communities. It works by analyzing factors such as poverty, car ownership, and transit access and other key data to highlight areas that may benefit from additional mobility investments. This tool supports Sections A and B of Step 1.



A. Identifying the Community

You can identify project areas based on a number of factors, including on-the-ground knowledge of a community, climate and air-pollution impacted counties, areas that lack access to public transit, and areas that face heat risk.

There might be areas of your communities that have greater transport needs than what existing mobility services can offer, or populations that are not served well by existing transportation systems.

QUESTIONS TO GUIDE YOUR RESEARCH
Integrating equity in planning could include focusing on questions such as:

- What are the underserved or disadvantaged populations? How do they experience disadvantage?
- Where do they live and what is their relationship to transport services?

Location & Population

Setting

The setting of your needs assessment may be based on a neighborhood, census tract, municipality, county, tribal lands, or other characteristics. Some factors to consider when determining location:

- There may be less detailed data available at a neighborhood level compared to municipal level, so you'll have to rely more on community knowledge and on-the-ground research.
- Using larger areas like municipalities and counties may have more data readily available, but community engagement will yield more broad or varied results.

Demographics

Demographic data offers valuable insight into the current state, historical trends, and future trajectory of communities.

Analysis of this data can be a powerful tool for tracking change over time and identifying a community's needs and strengths.

Some examples of demographics to consider for the population may be:

- Age and gender
- Race and ethnicity
- National origin
- Income and employment
- Education

Equity

Consider and prioritize the mobility needs of low-income residents, communities of color, and other marginalized groups in your analysis, as these populations have historically been left out of the transportation decision-making process.

Certain populations – like seniors, youth, outdoor workers, or farmworkers – may have unique needs that are not being served by public transportation. You may also find additional demographic data to be more relevant for your needs assessment, such as:

- Population with a disability
- Zero-vehicle households
- Population with limited English proficiency





Resources: Location & Population

Statewide

- Equity and environmental justice resources from New Jersey's Metropolitan Planning Organizations:
 - [North Jersey Transportation Planning Authority | Demographics Analysis Tool](#)
 - [Delaware Valley Regional Planning Commission | Equity Analysis for the Greater Philadelphia Region](#)
 - [South Jersey Transportation Planning Organization | Environmental Justice Report](#)
- [NJ Environmental Justice Mapping, Assessment and Protection Tool](#) An interactive mapping tool that allows users to view overburdened communities, the criteria each block group meets, and the presence of environmental and public health stressors in each block group.

Nationwide

- [National Equity Atlas](#)
- [U.S. Census Bureau | Explore Census Data](#)
- [U.S. Census Bureau | Language Spoken at Home by Ability to Speak English](#)
- [EPA | Smart Location Database](#)

Environment

Physical Environment

Include information on the physical environment of the community, including both natural and human-made elements, such as:

- Topography
- Land use or zoning
- Highways, roads, and hard transportation infrastructure
- Permanent structures like buildings, parking garages, hospitals, schools, etc.

Vulnerability

Vulnerability stressors present in the community are also helpful to include, such as:

- Air pollution
- Proximity to contaminated sites
- Climate-related risks, such as heat risk, flooding, and extreme temperatures
- Designation as a Food Desert Community

Resources: Environment

Statewide

- [NJ-GeoWeb](#) Users can view, query, and analyze DEP's GIS data with related environmental information.
- [Healthy Community Planning NJ](#) Provides individual municipal-level reports and map books containing health and environmental indicators with comparisons to the county and state.
- ["What's In My Community" Air Quality Mapping Application](#) Air Quality Interactive mapping tool to help identify sources of air pollution.
- [Heat Hub NJ](#) A Digital resource on all things related to extreme heat in New Jersey.
- [New Jersey Food Desert Community Designations](#) Mapping tool that shows areas throughout the state that have the most limited access to nutritious foods.

Nationwide

- [FEMA | National Risk Index Map](#)
- [CDC | Heat & Health Tracker](#)

B. Understanding Existing Mobility & Transportation

As part of your needs assessment, it’s important to understand existing transportation planning processes and infrastructure. Historical decisions around funding and planning can have lasting implications for communities, particularly for communities of color who face legacies of redlining that limit access to social, economic, and educational opportunities.

QUESTIONS TO GUIDE YOUR RESEARCH

➤

How do people get around now?

➤

What are some of the services people frequently use?

➤

Who is responsible for making transportation decisions?

➤

What are the impacts from historical transportation decisions made in the community?



Current Mobility Services & Patterns

Modes

Determine the current modes of transportation that people use. These could include:

- Mass transit (trains and buses)
- Shared mobility services (taxis, carshare, microtransit, etc.)
- Micromobility services (e-bikes, e-scooters, etc.)
- Biking or walking
- Commuter vans and carpools
- Transportation for designated populations (seniors, individuals with disabilities, veterans, low-income households, etc.)

Use

Explore how people are using these services. For example, you may analyze:

- Who is using these transportation services?
- Where are people trying to get to and how are they getting there?

Resources: Current Mobility Services & Patterns

Statewide

- [NJ 211 | Transportation Options in New Jersey](#)
- [New Jersey Geographic Information Network | NJ Transit bus, rail, and light rail maps](#)
- [NJ Transit | Rail and light rail PDF maps](#)
- [NJ Transit | Access Link ADA Paratransit](#)
- [NJ Department of Transportation | Park and Ride Locator](#)
- [Port Authority Trans-Hudson Corporation \(PATH\)](#)
- [Port Authority Transit Corporation \(PATCO\)](#)
- [Amtrak](#)

Nationwide

- [U.S. Census Bureau | Commuting \(Journey to Work\)](#)
- [Federal Highway Administration | National Household Travel Survey](#)



Transportation Decisions

Historical Impacts

Our transportation system has evolved over many years. Past decisions made about interstate highways, rail, airports, and public transportation often led to negative impacts on marginalized populations, sometimes excluding or dividing communities, cutting people off from their neighbors and opportunities, and increasing local travel times. In many cases, this was the result of not including communities in the decision-making process, leading to federal, state, and local laws and policies that require public involvement as part of these processes today.

The resources below intend to provide a starting point. The history of transportation in the U.S. is complex and extensive. On-the-ground knowledge combined with the engagement activities in Step 2 can help you understand how historical decisions surrounding transportation may have impacted your community.

Transportation Plans

Transportation decisions are managed across all levels of government. Reviewing state, regional, and local government transportation plans may help you understand how the solutions you develop in Step 3 can be most effectively implemented.

Find a list of current state and regional plans in *General Resources: Transportation Guides, Plans, and Research*.

Resources: Transportation Decisions

Statewide

- [NJDOT | 50th Anniversary Overview](#) Use the drop-down to read through New Jersey's transportation history from the 1960s through the 2010s
- [NJ Transit | How It All Began](#) A brief history on the creation and expansion of NJ Transit

Nationwide

- [U.S. DOT | A Guide to Transportation Decisionmaking](#)
- [U.S. DOT | Transportation Decision-Making: A Guide for Getting Involved](#)
- [U.S. FHWA | A 100-year timeline of the Federal-aid Highway Program](#)





C. Evaluating Current Transportation Services

Using the data gathered from Sections A and B above, evaluate the conditions of the existing transportation options both individually and holistically using the accessibility, reliability, and affordability considerations below.

Note: In some cases, people who plan transportation services don't personally use the transportation options available to residents. By using these services themselves, planners can gain a deeper understanding of what they offer and where there might be gaps.



Incorporating Qualitative Analysis

Resources are provided in each section to assist you in your research. You are not limited to these tools and are encouraged to explore options that best fit the unique features of your community. There may be limitations on how accurate data sources might be for certain communities, so qualitative analyses such as on-the-ground observations, for example through using the transit systems and walk or bike audits, can add valuable insight.

Here are some guides to help you conduct these types of assessments:

- [National Center for Mobility Management | Checklist for Assessing the Accessibility of Transportation and Mobility](#)
- [National Highway Traffic Safety Administration | Walkability Checklist and Bikeability Checklist](#)
- [Federal Highway Administration | Pedestrian and Bicyclist Road Safety Audit Guide](#)
- [America Walks | How to Conduct a Walk Audit in Your Community](#)
- [AARP | Walk Audit Tool Kit and Bike Audit Tool Kit](#)



Accessibility

Accessibility evaluates how easily individuals can access opportunities and essential services in and around their community. Consider not just access to transport infrastructure but also the surrounding areas, their conditions, and perceptions of safety.

Review the questions and resources provided for each accessibility consideration below to help guide your analysis.

Connections

Areas where transportation services easily connect to employment, education, food, and healthcare are considered more accessible than ones where getting to these services requires a personal vehicle.

- Are there multiple transportation options available?
- Do the existing transit routes get people to key destinations and essential services?
- How long is the commute for people to get to these destinations?
- Are services operating when people need them?

Resources

- [EPA | Smart Location Database](#) Nationwide geographic data resource for measuring location efficiency using attributes summarizing characteristics, such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment and demographics.
- [EPA | Access to Jobs and Workers Via Transit](#) Includes several indicators measuring access to jobs and workers within a 45-minute transit ride for census block groups where transit data is available.

Walkability

The existence and condition of pedestrian infrastructure throughout the community can determine if people are able to travel effectively by walking.

- Are sidewalks present throughout the community? Are they too narrow or in need of repair?
- Do intersections contain crosswalks and signage to aid pedestrians in their travel? Are there areas that experience more pedestrian collisions than others?
- Is there adequate street lighting, shade trees, or amenities that allow ease of pedestrian travel?

Resources

- [EPA | National Walkability Index](#) Provides walkability scores based on a simple formula that ranks selected indicators that have been demonstrated to affect the propensity of walk trips.
- [Google Maps | Street View](#) Can be used to complete visual street audits.



Accessibility Continued

Safety

Consider the condition of infrastructure and vehicles as well as residents' perceptions of safety, which vary across communities and across modes of transit.

- Are there designated and/or protected bike lanes? Are there high levels of bicycle incidents or fatalities?
- Are transit stations well-lit? Are there safe and accessible roads, walkable streets, and bike lanes near transit stops so people can fill in first and last-mile transit?
- Are transit stops over-policed? This could discourage certain communities from using transit.

Resources

- [DVRPC | Crash Statistics Map](#) Shows location data for crashes in the Greater Philadelphia region that can be narrowed by crashes involving pedestrians and or bicyclists.
- [New Jersey Safety & Health Outcomes | NJ Traffic Safety Overview](#) Dashboard showing annual data on drivers, pedestrians, and bicyclists in crashes.

ADA Accessibility

Transportation services are required to comply with the accessibility standards established by the Americans with Disabilities Act (ADA) to accommodate individuals with disabilities. Areas surrounding transit stations and bus stops should also be examined to ensure people of all abilities are able to get to the transportation services.

- Do sidewalks meet minimum width requirements and are there suitable curb ramps?
- Are there elevators present at transit stations? Are these frequently out of service?
- Is signage for the transportation service clear, easily read, and able to meet other ADA design requirements?

Resources

- [NJ Transit | Accessibility](#) General information on accessibility features for all NJ Transit service modes: bus, rail, light rail, and Access Link, as well as Community Transportation options and Reduced Fare Card Programs.
- [NJ Transit | Rail System](#) Map showing accessible transit rail stations. Additional station maps can be found at www.njtransit.com.

Scheduling and Payment Options

Some services require users to schedule their ride in advance, and many also require payment for use. Not all residents have a bank account or smartphone, and it is important to consider the ability of all users to access services that have these requirements.

- Which services have a fee for use? Do these services accept cash or other forms of payment?
- Do people have to prebook their trip? Does scheduling require the use of a smartphone application or is there a dial-in option or kiosk for booking?
- If there is a dial-in option, is it available 24/7? Is the line frequently busy?

Resources

- [NJ Transit | Fare Guide](#) A list of prices and details on how to book a trip through NJ Transit.
- [NJ Transit | Mobile App](#) Information about how to pay for transit without needing a bank account.



Reliability

Reliable transportation dependably provides users with consistent, convenient, and predictable travel. Transportation services that are inconsistent or unpredictable can impact peoples' ability to effectively get where they need to go, reducing their usefulness and accessibility.

When looking at existing transportation options in the community, you may consider:

- Do they often experience delays or cancellations?
- Are routes operating frequently enough for users?
- Can users expect the facilities and services to be consistently clean and in good condition?

Resources

- [NJ Transit | Performance by the Numbers](#) Statistics on NJ Transit performance, equipment reliability, and service level for bus, rail, light rail, and Access Link.
- [AllTransit | Metrics: Equity](#) Data includes households and populations near high frequency transit.

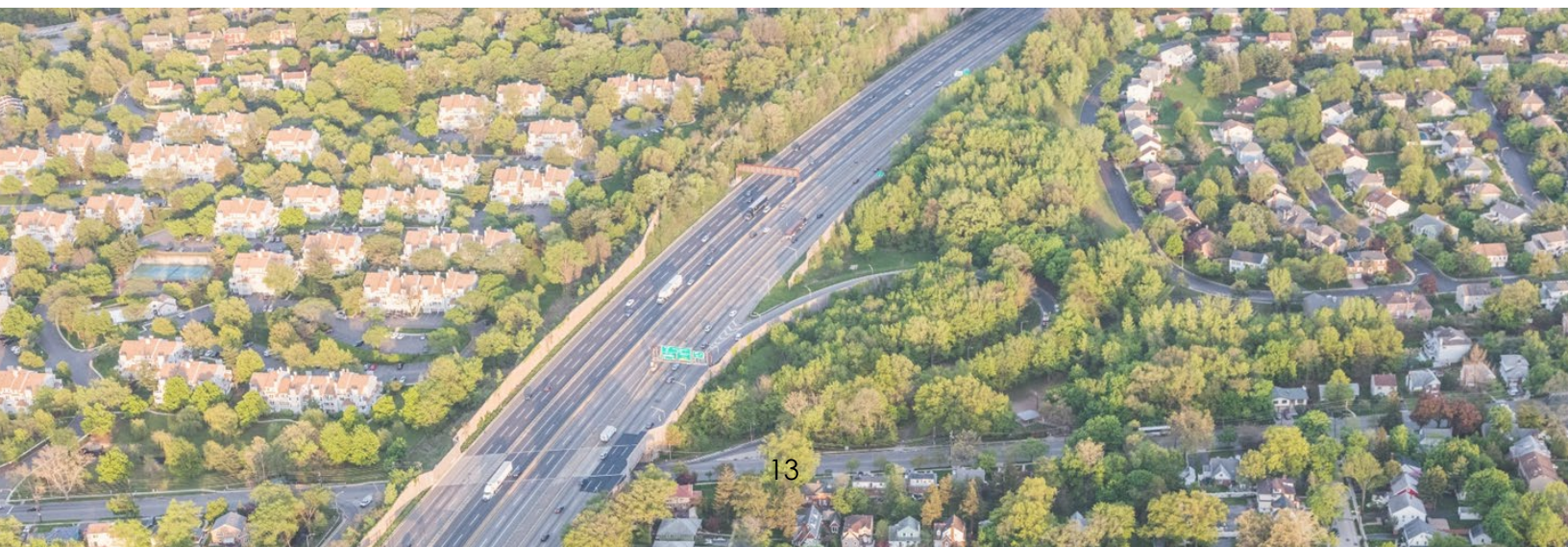
Affordability

Consider if community members can afford transit services and other transportation in your area. Affordability can vary based on income and other factors and could limit how people use transportation services.

- What is the median household income of people in the community?
- How much do they spend on gas and/or transportation?
- Are there equity measures in place, such as transit discounts for low-income residents?

Resources

- [AllTransit | Metrics: Economy](#) Shows percent of income for average transportation costs for block groups near transit.
- [Center for Neighborhood Technology | The Housing and Transportation \(H+T®\) Affordability Index](#) Presents housing and transportation affordability data as maps, charts, and statistics from a regional to neighborhood level.





STEP 2

Engaging the Community



Meaningful community engagement as part of your Community Transportation Needs Assessment (CTNA) offers the opportunity to enhance your understanding of residents' transportation needs and gain insight on community preferences for mobility solutions. Decades of exclusionary planning processes have not considered the transportation needs of under-resourced communities such as low-income populations, people of color, and people with limited English proficiency, leaving them without access to adequate transportation options.

This step will add meaning and additional context to the data and research phase of Step 1. Additionally, information gathered from Step 1 can be used to tailor engagement activities to your community members more effectively.





A. Set Engagement Goals

Clearly outline your goals for community engagement and keep them in mind throughout the process.

These could include:

-  Understanding residents' transportation needs
-  Verifying existing data through experiences and observations from community members
-  Gaining insight on community preferences for solutions
-  Building partnerships and trust with community members



Effective community engagement requires an open and transparent process. Organizers should treat participants with integrity and respect, valuing their voice and experience. Additionally, be ready to listen and change approaches if needed to ensure a truly productive engagement.

Using Engagement to Gain Insight on eMobility Perspectives

Residents may be unfamiliar with shared-use mobility options, like carshares, microtransit, and micromobility services. Using electric vehicles for these programs (i.e. eMobility) adds another complexity that people may be hesitant to support due to lack of awareness.

You can assess residents' interests in and perceptions of eMobility by directly asking residents if they understand what these services are and presenting different models to see which they'd be comfortable using. You can also include questions about electric vehicles to see if residents are supportive of this technology or have concerns that can be addressed.

The next page introduces some different eMobility models with ideas to keep in mind for each during your community engagement. More about these models will be explored in Step 3.

Sometimes labels detract from your overall goals.

Explain topics in simple, easily understood terms rather than solely calling out specific eMobility models by name. Adding more general questions not directly related to a model may also help determine if a solution would be suitable.

- Find out where people are going and when are they are traveling to see if there are already transportation options meeting their needs.
- Ask how they currently travel to destinations. If people are already using the bus, a carshare vehicle, or a bicycle, they are more likely to accept the electric form of these models.
- Some models rely on mobile apps and a debit or credit card for use. Knowing if residents have a smartphone and bank account will help determine if these models could be considered or if they would need to be modified for wider accessibility.



ENGAGEMENT CONSIDERATIONS FOR DIFFERENT EMOBILITY MODELS

CARSHARE allows users to rent a vehicle for a short time (for example to get groceries, go to an appointment, run errands, visit family, etc.)

- Since users will be driving, it may be important to know the percentage of residents that can drive a vehicle themselves.
- Many carshare services use a mobile app for reserving a vehicle and require a bank card to pay for the service. Asking questions about access to a smartphone and bank account could help determine if carshare would work for residents, or if a service would need modifications to be more accessible.

FIXED-ROUTE SHUTTLE SERVICES usually operate along a set route, making scheduled stops at designated locations.

- Residents who already use a bus service may be comfortable with a new shuttle service to reach more destinations. You could ask about current transit use or likelihood to use transit if it were available.
- Incorporating questions about where people are trying to go and when they are traveling could help determine which route and schedule would best serve residents.

MICROMOBILITY allows users to rent bikes or scooters for short-term use.

- Include questions about current bike or scooter use, as people who already use these to reach destinations may be more comfortable with electric micromobility.
- Using electric-powered options can expand accessibility for older adults, people with disabilities, or others who are not able to use a conventional bike.

MICROTRANSIT offers on-demand rides that group together riders heading in the same general direction and often operates in zones to keep wait times low and improve reliability.

- Include questions about likelihood to use public transit and compare this data to the area's population and employment density. Zones with a high percentage of these groups and a lower density are most likely to benefit from Microtransit, while areas with a higher density could be good candidates for a fixed-route service.

eMOBILITY HUBS include a mix of electric transportation options coupled with EV charging stations and amenities for people to use between destinations. Transportation options may include carshare and micromobility vehicles, and the location could serve as a designated shuttle stop or include areas for ride-hailing drivers to pick up and drop off riders, charge their vehicles, and take a break between rides.

- These sites are often located near mass transit to promote connectivity and facilitate longer trips. If there are existing mass transit options in your community, you could ask residents if they currently use these services and how they normally get to and from these locations.
- You can use engagement to see which transportation options people prefer at an eMobility Hub and what kinds of amenities would be helpful (i.e. restrooms, places to eat and shop, sheltered seating, free Wi-Fi, cell phone chargers, storage lockers, etc.).
- Engagement could also provide organizers with ideas for locations where an eMobility Hub would be most beneficial for community members.



B. Identify Your Target Audience

Engagement methods should aim to reach all residents of your community and target hard-to-reach demographic groups, such as young adults, low-income families, and limited English proficient residents who have traditionally not participated in transportation planning.

Consider which marginalized groups to prioritize and choose partners, such as local community organizations, that can help increase engagement.

DEP maintains [New Jersey's Environmental Justice Directory](#), a public database comprising of community-based organizations, advocates, and concerned residents with interest in environmental justice. The directory aims to facilitate robust engagement and collaboration between environmental justice stakeholders, state and local government, and companies involved in environmental justice initiatives across the state.



"You have to cultivate relationships with people who can see more than you and who can see differently than you, so that together your co-imagination becomes something that actually works for everyone."

-Adrienne Marie Brown



C. Administer Engagement Activities

Community engagement should include in-person or virtual community events complemented with survey data to understand community perspectives on transportation needs and mobility solutions.

To broaden participation, use inclusive and accessible outreach methods, such as:

 Language translation and interpretation services for events, surveys, and printed materials

 Childcare and transportation for in-person activities or virtual attendance options

 Hosting in-person activities in community-centered locations (bookstores, libraries, etc.)

 Compensating participants for their time through incentives like cash and gift cards

 Scheduling events on days and times that are convenient for community members

 Choosing venues that are ADA accessible



Community Engagement Resources

- [Clean Mobility Options | A Guide for Developing a Community Engagement Plan](#)
- [Digital.gov | Communication resources and best practices for sharing information with the public](#)
- [Forth Mobility | Webinar on Increasing Community Impact with Meaningful Engagement](#)
- [Joint Office of Energy and Transportation | Community Engagement Tips for EV Infrastructure Deployment](#)
- [North Jersey Transportation Planning Authority | Public Engagement Toolkit](#)
- [Shared-Use Mobility Center | Community Engagement Module](#)
- [U.S. DOT | Promising Practices for Meaningful Public Involvement in Transportation Decision-making](#)



Engagement Approaches

Using a variety of methods to engage the community will help reach more people.

Surveys

Surveys are often go-to tools to collect detailed information from a large group of people. Help broaden responses to your surveys by:

- Using both digital and paper formats
- Distributing surveys in a variety of ways (website, social media, email, during public meetings and events, etc.)
- Compensating survey respondents with cash or a gift card

Resources & Examples

California has developed 3 sample surveys for community transportation needs assessments as a tool for applicants of their [Clean Mobility Options Voucher Pilot Program](#) to determine preferences for shared transportation. Use these as a guide:

- [Sample Short Survey](#)
- [Sample Medium-length Survey](#)
- [Sample Comprehensive Survey](#)

Public Events

Hosting events or partnering with existing community events is a great way to connect with community members. Focus your event planning on ways to reach the target audiences identified in Section B in order to include populations traditionally left out of transportation planning processes. Examples of public events could include:

- Community forums and open houses
- Public workshops and listening sessions
- Tabling at events
- Webinars or virtual meetings; town hall meetings

Resources & Examples

- [Zoning Workshop](#) to build knowledge of zoning and development and support community organizations playing proactive roles around land use and development (Newark, NJ)
- Public engagement for the [Broadway Corridor Improvement Study](#) included a visioning workshop and public open house (Knoxville, TN)
- [River North-Streeterville Transit Study](#) used public open houses and pop-up meetings in their community engagement (Chicago, IL)

Innovative Methods

Using inventive engagement approaches can help you collect unique input from community members. These are also great ways to help your activity stand out from the traditional forms of public involvement. These could include:

- Focus group discussions with specific members of your community
- Pop-up events
- Mobility demonstrations
- In-person or online community mapping

Resources & Examples

- [Focus groups with youth](#) and [limited English speakers](#) (Portland, OR)
- [ActiveSGV pop-up events](#) (San Gabriel Valley, CA)
- [Virtual reality engagement](#) (Sacramento, CA)
- [Fast Forward Mobile Outreach Bus](#) (Tulsa, OK)
- Community mapping ([Jersey City, NJ](#) and [Oakland, CA](#))
- [Community Electric Bicycle Demos](#)
- [ArcGIS StoryMaps for crowdsourcing](#)



Planning Your Engagement

Choosing your Approach



The type of engagement approaches you select will depend on several factors:

- **The target audience** and their ability and interest to participate
- **Your budget and access to resources** or supplies needed for the activities
- **Availability of staff and volunteers** to help with activities and promotion
- **Facilities, locations, and online platforms** available to hold the events

Promotion & Outreach



Consider how to advertise your engagement activities to enhance participation for each approach you choose. The length of promotion will depend on the types of activities, with larger public events warranting more advance notice and reminders. Outreach methods may include:

- **Non-digital communication methods**, such as mail, telephone calls, posting flyers, event signage near the venue, etc.
- **Social Media content**, either through existing community pages or by creating a new account for your project. If your organization has the ability to create paid advertisements on social media, many of these platforms enable you to target ads for specific groups based on demographics and interests.
- **E-mail and digital newsletters**. Some towns and community organizations have existing email lists that can be used to spread the word.
- **Websites** serve as a great way to house information related to your CTNA and engagement activities. You could add a webpage to an existing website or create a new website for your project.
- **Word-of-mouth** endorsements by community ambassadors. Recruit or encourage staff and volunteers to promote the activity to family, friends, and community members.

Recording Engagement Information



Document the engagement process and gather both qualitative and quantitative data gained from each activity. This may include:

- **Activity details**, such as location, date and time, number of staff or volunteers needed and their roles, and the overall process taken to organize the activity
- **Number of attendees** and participant demographics
- **Concerns and input** received from participants
- **General observations** noted during the activity

It may be helpful to have a designated staff member or volunteer take notes during the event or hold a brief meeting after the event for volunteers to discuss their observations.



STEP 3

Developing Solutions



This step provides insight on how to develop meaningful solutions that can meet the community needs identified in Steps 1 and 2. It also explores electric, shared-use transportation (eMobility) as a solution and provides information on potential funding opportunities.

Remember, engagement shouldn't stop once your community transportation needs assessment (CTNA) is complete. Keep the lines of communication open among organizers, municipal leaders, and community members to build these relationships and promote ongoing community involvement in the transportation planning process.





A. Community-Led Solutions

Use the information gathered from Steps 1 and 2 to develop possible solutions and determine which could best meet your community's unique needs. Evaluate each, taking into consideration its potential impact, including both benefits and risks to the community.

You may consider:

- ☒ How well the option addresses the needs identified by the community
- ☒ How the community feels about the option
- ☒ If your organization has the resources and funding needed to implement the option
- ☒ How long it would take to implement the option



Example Methodology: In *JC on the Move: Jersey City Alternative Transportation Modes Assessment*, potential solutions were developed and formally scored through a process that graded each option based on:

1. How well it addressed identified transportation gaps, represented feedback from community outreach, and supported city goals
2. Its impact, feasibility, and sustainability
3. The timeframe it would take to implement

eMobility as a Solution

Your Community Transportation Needs Assessment results may indicate that shared-use, electric transportation (eMobility) could benefit the community. During your community engagement activities, you assessed residents' interests in and perceptions of eMobility. Once you've received this feedback, compare it to the data and research gathered in Step 1 to see which eMobility mode might work in the community.

On the next page, review examples of different eMobility models along with resources and examples for each.

eMobility Helpful Links

- [Interstate Renewable Energy Council | Enabling Equitable Electric Vehicle Shared Mobility Programs](#)
- [California Air Resources Board | Sustainable Financing Tools and Strategies for Equitable, Community-Based Mobility and Transportation Solutions](#)
- [Berkeley Law | Electric SHARED MOBILITY: California Lessons Learned for Equity in Program Design](#)



eMOBILITY MODELS

CARSHARE

A service that lets members use a car for a short time. There are two main types: round-trip, where you pick up and return the car at the same place, and one-way, where you can pick up the car at one location and drop it off at another.

Resources

- [Forth | Best Practices for EV Carsharing Programs](#)
- [U.S. Department of Energy | Project Lessons: EV Car Share](#)

Examples

- ⚡ [Sacramento Metropolitan Air Quality Management District | Our Community CarShare](#) (Sacramento, CA)
- ⚡ [Blink Mobility | BlueLA](#) (Los Angeles, CA)

FIXED-ROUTE SHUTTLE SERVICE

A system of transporting people on a set route and schedule. These services typically use larger capacity vans or buses and make limited stops to help fill gaps in mass transit.

Resources

- [National Renewable Energy Laboratory | Electrifying Transit: Guidebook for Implementing Battery Electric Buses](#)

Examples

- [EZ Ride Shuttles](#) (Northern NJ)
- [Cross County Connections Commuter Shuttles](#) (Southern NJ)

MICROMOBILITY

Fleets of small, low-speed vehicles for short trips. Micromobility serves as a first- and last-mile option that is faster than walking or hailing a taxi. Common forms include bikeshare and scooter share. Most trips are 1-3 miles, but some can be much longer if using an electric bike or scooter.

Resources

- [U.S. DOT | Electric Micromobility Basics](#)
- [U.S. DOT Federal Highway Administration | Micromobility: A Travel Mode Innovation](#)
- [NJ Bicycle & Pedestrian Resource Center | E-Bikes, E-Scooters, and More in New Jersey](#)

Examples

- ⚡ [CitiBike NJ](#) (Jersey City and Hoboken, NJ)
- ⚡ [VeoRide](#) (Asbury Park, Highland Park, New Brunswick, and Newark, NJ)
- ⚡ [Newark Go](#) (Newark, NJ)
- [ON Bikeshare](#) (Perth Amboy, NJ)

MICROTRANSIT

A tech-based service that uses multi-passenger vehicles for on-demand rides with flexible routes. Microtransit usually operates in specific areas, with pickup and drop-off spots within a short walk of multiple customers.

Resources

- [National Center for Applied Transit Technology | On Demand Transit and Microtransit: Where and Why](#)
- [Shared-Use Mobility Center | Microtransit Learning Module](#)

Examples

- ⚡ [Isles, Inc. | GOTrenton!](#) (Trenton, NJ)
- [Via Jersey City](#) (Jersey City, NJ)

eMOBILITY HUBS

Places that offer various electric, shared-use mobility services and EV charging stations to promote connectivity through zero-emission transportation. These sites are often located near public transit to facilitate longer trips while filling first- and last-mile gaps in transportation.

Resources

- [Seattle Department of Transportation | EVSE Roadmap for Shared Mobility Hubs](#)
- [Forth | Best Practices for Gig Drivers' Transition to Electric Vehicles](#)

Examples

- ⚡ [Sacramento Metropolitan Air Quality Management District | Mobility Hub](#) (Sacramento, CA)

⚡ Program uses EVs

● Program does not currently use EVs

● Program uses a mix of gas-powered vehicles and EVs



B. Next Steps

Choosing & Implementing a Solution

After evaluating each solution using the considerations in Section A, you may have one or more that would work well in your community. It could be helpful to conduct additional community engagement focused on these options to help determine which would best serve residents.

QUESTIONS TO CONSIDER WHEN CHOOSING A SOLUTION

- How will risks, including inadvertent displacement of vulnerable populations, be mitigated or avoided?
- What partners could support implementation?
- What funding opportunities are available to develop and implement the solution?
- How will community members be involved in the decision-making and planning process?



Practical steps to work toward implementing the chosen solution include:

-  Engaging with relevant vendors and contractors, including eMobility service providers, site hosts, EV charging companies, EV charging installers, and local utilities.
-  Planning potential routes, operating hours, vehicle types, and pick up/drop off locations. Data and other information gathered through Steps 1 and 2 of the Toolkit can provide insight to help you get started. eMobility service providers may also be able to help.
-  Developing a project implementation budget.
-  Preparing a grant application for project funding (see funding opportunities in Section C below).
-  Working with the local municipality and county to ensure transportation policies and regulations support the project's needs and are up to date.



Sharing Your Results

To complete your Community Transportation Needs Assessment, you can put together a summary report focused on these key questions:

- ① What are the existing transportation options in your community, and what and where are the gaps?
- ② Who has access to each option, and what segments of your community face barriers to transportation?
- ③ What are residents' perspectives on transportation needs and potential mobility solutions?
- ④ How well could eMobility modes serve your community? Which solution could best meet the community's needs and preferences and what are practical next steps to implement?



You can also let the community know the results of your assessment through visual and digital storytelling methods, public open houses, and other creative means to strengthen community ownership in the planning process.



Example CTNA Summary Reports

- [JC on the Move \(Jersey City, NJ\)](#)
- [OakMob 101: Case Study In Expanding Access To Shared Mobility \(Oakland, CA\)](#)
- [La Presa and Spring Valley Community Transportation Needs Assessment \(San Diego County, CA\)](#)
- [City of Watsonville Clean Mobility Options Community Transportation Needs Assessment \(Watsonville, CA\)](#)



C. Funding Opportunities

State, regional, and federal funding opportunities may be available to help bring your projects to fruition.

Note: Funding availability varies. Each opportunity may have different open and close dates, funding amounts, eligibility and match requirements, and applications processes.

Funding for eMobility Projects

eMobility Grant Program (NJDEP) The New Jersey Department of Environmental Protection provides funding for electric, shared-use transportation solutions that improve the mobility of residents in low- to moderate-income communities disproportionately impacted by air pollution.

Funding for Other Transportation Projects

Regional

- **Complete Streets Technical Assistance Program (NJTPA)** Supports municipalities by providing them with the knowledge, skills, and resources to develop Complete Streets-related solutions.
- **Planning for Emerging Centers (NJTPA)** Provides technical assistance to help municipalities create more sustainable, transit-supportive, and walkable communities.
- **Transportation and Community Development Initiative (DVRPC)** Grant opportunity that funds local planning initiatives that build municipal capacity and enhance the transportation network.
- **Travel Options Program (DVRPC)** Funds creative projects that aim to reduce the number of single occupancy vehicles on the region's roadways.

Federal

Before applying for federal funding, local governments and other organizations are encouraged to contact their region's MPO, which may be able to assist in coordinating and helping with these grant applications.

- **US Digital Response's Federal Grant Finder** is a free software identified by the New Jersey Department of Treasury's Grants Management Office that enables organizations to optimize federal funding opportunities through advanced search and collaboration tools.
- **New Jersey's Infrastructure Investment and Jobs Act (IIJA) Information Hub** provides grant information visible and digestible to municipalities, counties, departments, and stakeholders in terms of the funding opportunities that are available under the IIJA.

State

- **Bikeways Program (NJDOT)** Provides funds to municipalities and counties to promote bicycling as an alternate mode of transportation in New Jersey.
- **Local Aid Infrastructure Fund (NJDOT)** Discretionary funding for counties and municipalities that includes multi-model improvement projects, like safety improvements to critical bike and pedestrian locations.
- **Safe Routes to School Program (NJDOT)** Provides funding to counties, municipalities, and school districts for infrastructure projects, such as the installation of sidewalks, crosswalks, bike lanes, multi-use paths, and other means to ensure the ease and safety of children walking or biking to school.
- **Safe Streets to Transit Program (NJDOT)** Provides funding to counties and municipalities to improve the overall safety and accessibility for mass transit riders walking to transit facilities.
- **Transportation Alternatives Set-Aside Program (NJDOT)** Provides funds for community based non-traditional surface transportation projects designed to strengthen the cultural, aesthetic, and environmental aspects of the nation's intermodal system.



General Resources

TRANSPORTATION ORGANIZATIONS

Metropolitan Planning Organizations

Metropolitan Planning Organizations (MPOs) are federally mandated and federally funded transportation planning agencies created to ensure transportation investments and decisions are based on a continuing, cooperative, and comprehensive planning process. New Jersey has three MPOs that cover different regions of the state:

- [North Jersey Transportation Planning Authority](#) (NJTPA) - Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren counties
- [Delaware Valley Regional Planning Commission](#) (DVRPC) - Burlington, Camden, Gloucester and Mercer counties
- [South Jersey Transportation Planning Organization](#) (SJTPO) - Atlantic, Cape May, Cumberland and Salem counties

Federal & State Agencies

Federal and State transportation agencies play a fundamental role in the planning, design, construction, and operations and maintenance of projects across all travel modes.

- [U.S. Department of Transportation](#)
- [Federal Highway Administration](#)
- [Federal Railroad Administration](#)
- [Federal Transit Administration](#)
- [New Jersey Department of Transportation](#)
- [NJ Transit](#)

Transportation Management Associations

Transportation Management Associations (TMAs) are non-profit, public/private partnerships that have been established to form partnerships with businesses and local government to provide commuter information and services. They also educate the public about the importance of air quality, promote traffic safety through public outreach and planning, and improve transportation options for older adults, low-income workers, and people with disabilities. There are eight TMAs in New Jersey:

- [Avenues in Motion](#) – Morris, Sussex, Warren, and western portions of Passaic and Essex counties
- [Cross County Connection](#) – Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem counties
- [EZ Ride](#) – Bergen, Union, Essex and Monmouth counties, and eastern portions of Passaic County
- [goHunterdon](#) – Hunterdon County
- [Greater Mercer TMA](#) – Mercer and Ocean counties, and Montgomery Township in Somerset County
- [Hudson TMA](#) – Hudson County
- [Keep Middlesex Moving](#) – Middlesex County
- [RideWise](#) – Somerset County, except for Montgomery Township



General Resources

TRANSPORTATION GUIDES, PLANS, AND RESEARCH

Planning Guides

- [Complete & Green Streets for All - Model Complete Streets Policy & Guide](#) Complete Streets are designed to ensure the safe and adequate accommodation of all users of the transportation system. This guide is a one-stop resource for adopting and implementing Complete Streets policies and practices.
- [Together North Jersey Guidebook for Transit Hub Planning](#) Provides an overview of the transit hub concept, lays out a set of strategic planning steps, and offers planning tools, information on funding and technical assistance programs, and guidance a community can use to support transit hub planning.
- [Transit Friendly Planning - A Guide for New Jersey Communities](#) This Guide is meant to promote Transit-Oriented Development in New Jersey by assisting municipalities, developers, state agencies, and other interested stakeholders with implementing transit-friendly planning concepts around transit facilities in New Jersey communities.

Research in New Jersey

- [NJTPA | Accessibility and Mobility Strategy Synthesis](#)
- [DVRPC | Transportation Studies & Applications](#)
- [SJTPA | Access for All Transit Plan](#)
- [Paterson-Newark Transit Market Study](#) (Parts of Passaic and Essex counties)
- [Ten-Year Mobility Study](#) (Sussex County)
- [Greater New Brunswick Transportation Study](#) (Parts of Middlesex and Somerset counties)
- [Bus Rapid Transit Opportunities Study](#) (Monmouth County)
- [Walter Rand Transportation Center Planning & Design Study](#) (Camden County)
- [Transportation Accessibility in Southern New Jersey](#) (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean, and Salem counties)

State, Regional, and Local Plans

- [New Jersey Statewide Transportation Improvement Program \(STIP\)](#) - Maintained by NJDOT as a guide to major transportation improvements planned throughout the state.
- [Statewide Long Range Transportation Plan](#) - A comprehensive plan developed by NJDOT and NJ Transit that includes goals, policies, strategies, and actions for New Jersey's transportation system.
- Regional Transportation Improvement Programs (TIPs) - Developed by New Jersey's MPOs to contain local and state highway projects, statewide line items and programs, and public transit and authority-sponsored projects:
 - [North Jersey Transportation Planning Authority: TIP](#)
 - [Delaware Valley Regional Planning Commission: TIP](#)
 - [South Jersey Transportation Planning Organization: TIP](#)
- County and Municipal planning boards are required to adopt Master Plans that serve as a blueprint showing current land uses and guiding decisions for growth and conservation in their communities.
- Some local governments also conduct more specialized assessments to guide transportation planning and decision-making. Review existing research and lessons learned from these to complement your efforts. A great place to start would be your municipal and county websites.

