AUTUMN 2022

KANSAS TRANSIT REPORTER

RTAP
KANSAS RURAL TRANSIT ASSISTANCE PROGRAM

The Newsletter for Kansas Rural and Specialized Transportation Providers • University of Kansas Transportation Center

INSIDE THE ISSUE

35th RTAP KANSAS RURAL TRANSIT ASSISTANCE PROGRAM ANNIVERSARY RECAP

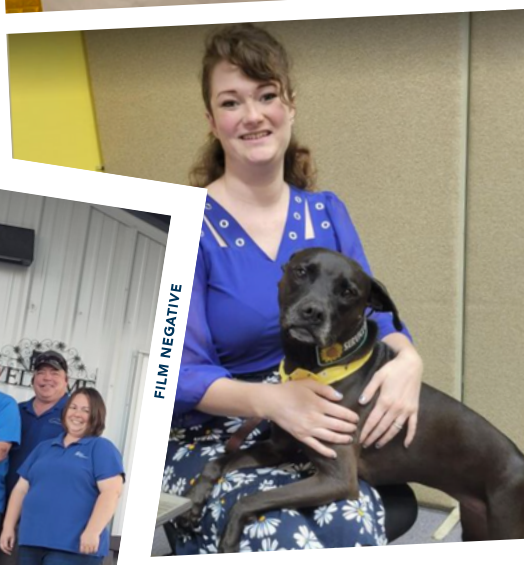
September 19 23, 2022 is going down in the books as an amazing week of celebrating 35 years of Kansas RTAP! We had special events lined up the throughout the week, and had a blast partaking in those events with transit agencies around Kansas. Our week of celebration would not have been near as fun without the agencies participating, so thank you! Here's to many more years of Kansas RTAP!

MONDAY - KICKOFF

Monday kicked off our week of celebrating with kind words from KS RTAP partners and a special KS RTAP tribute video, "35 Years of Onward and Upward."

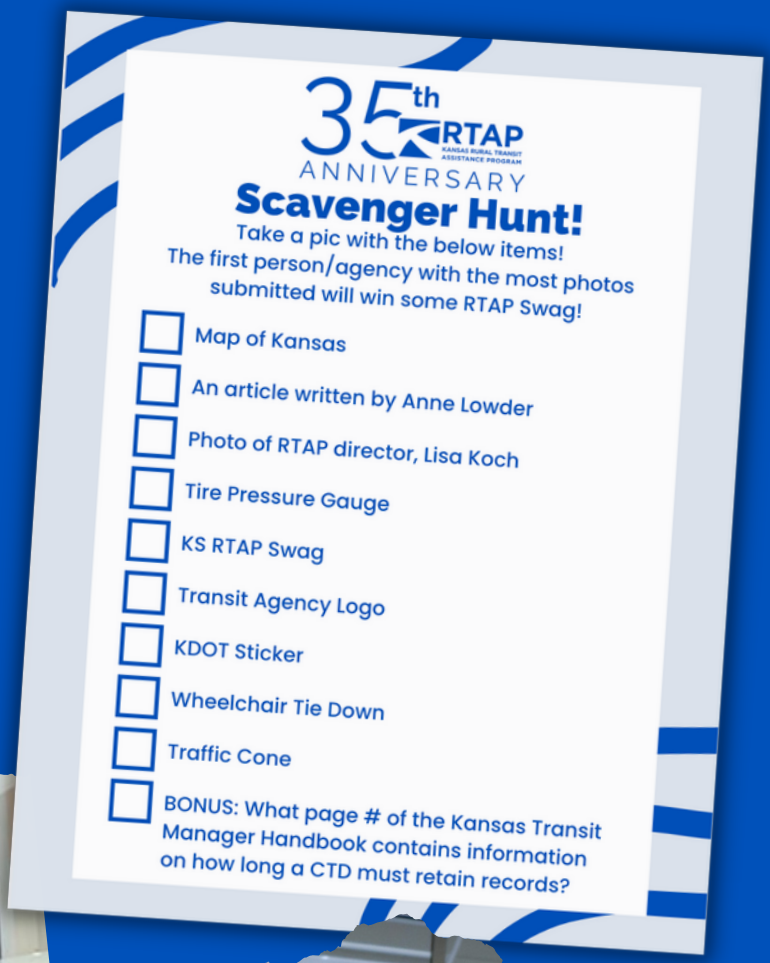
TUESDAY - BLUE DAY

Tuesday was blue day! We encouraged everyone to wear their KU blue to show support for KS RTAP. KUTC and several RTAP partners dressed for the occasion and shared their photos on social media with the hashtag, #KSRTAP35.



WEDNESDAY - SCAVENGER HUNT

On Wednesday morning we sent out an email with details for our KS RTAP themed scavenger hunt. The objective was to find and photograph as many items on the list as possible. The first person or group to email in the most found items won some KS RTAP swag. Congratulations to Alecia Gaines and Monica Renteria with Rice County Council on Aging for being our scavenger hunt winners!



THURSDAY - 80'S PARTY

KS RTAP was established in 1987, so we dedicated Thursday to party like it was 1987! We had a blast pulling out all the denim, briefcases, and big hair!

FRIDAY - DOOR DECORATING

We wrapped up our celebration week by inviting everyone to decorate a door in their office with decor that represented KS RTAP. Our winning submission came from Cassandra Beck with Northeast Kansas Area Agency on Aging in Hiawatha!

THANK YOU!

A big thank you to everyone who participated in our celebration week or sent in kind words and congratulations! We are here to serve you, and you make our jobs fun. We are excited to keep serving you another 35 years!

Don't Miss Out... Stay Connected!

KANSAS RTAP SOCIAL

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COORDINATION BETWEEN PUBLIC TRANSIT AGENCIES AND SCHOOL BUS PROGRAMS

By Lisa Koch, Kansas RTAP

In a recent conversation with Heidi Briery from Douglas County Senior Center, she brought up the idea of job-sharing drivers with their local school district. Generally, school bus drivers have split shifts in which they work before and after school. For Heidi, the time when the drivers are not working is prime time for her seniors, who have most of their appointments midday. This idea sounded just crazy enough to work. It got me thinking…what are some other coordination opportunities between local transit agencies and school bus programs? The following article is information I found by reviewing case studies and research papers about the subject. Hopefully, there are some nuggets in here for your agency!

THE FEDERAL "SCHOOL TRIPPER" POLICY

The Code of Federal Regulations 49, Part 605, defines the policy regarding the use of federally funded public transit services for school transportation. The policy states:

> "A grantee or applicant may not engage in school bus operations in competition with private school bus operators unless it demonstrates to the satisfaction of the Administrator as follows:
>
> (a) That it operates a school system in its urban area and also operates a separate and exclusive school bus program for that school system; or
> (b) That private school bus operators in the urban area are unable to provide adequate transportation, at a reasonable rate, and in conformance with applicable safety standards; or
> (c) That it is a state or local public body or agency thereof (or a direct predecessor in interest which has acquired the function of so transporting schoolchildren and personnel along with facilities to be used therefor) who was so engaged in school bus operations:
>
> (1) In the case of a grant involving the purchase of buses - anytime during the 12-month period immediately prior to August 13, 1973.
> (2) In the case of a grant for construction or operating of facilities and equipment made pursuant to the FT Act as amended (49 U.S.C. 1601 et seq.), anytime during the 12-month period immediately prior to November 26, 1974."
> (Code of Federal Regulations, 2022)

The intention of this policy is twofold: 1) to protect school bus operators from competition and 2) to ensure that publicly funded transit service is meeting the needs of the general public. However, there is often confusion about what transit providers can do related to school bus transportation. Public transit agencies can provide services that benefit K-12 students so long as that service is open and available to the general public. This includes developing routes that have stops in front of schools (so long as the stops are not directly on school

property) and schedules that coincide with school start and end times. A public transit agency's paratransit program can be used to transport paratransit-eligible students to school. However, there are things that agencies are not allowed to do. Agencies are not allowed to provide service that could be seen as primarily designed to accommodate school travel, even if it is open to the public. Additionally, service cannot be advertised as a school bus route. This includes naming or identifying the route after the school destinating, advertising the route as a "school special" or putting a bus stop directly on school property.

Many agencies in Kansas provide non-exclusive school service as part of their general provision of service and see it as an effective way to introduce young people to public transportation. However, is there more that transit agencies can do?

KANSAS SCHOOL BUS SAFETY REGULATIONS

The Kansas State Department of Education has documented standards for drug testing, file retention, and bus driver qualification and training. The full document is available at the following site: https://www.ksde.org/Portals/0/School%20Bus/Regulations/ManualDecember2017.pdf

There are a couple items to specifically note in this document. One being the Kansas statute regarding the use of urban mass transportation buses for school bus transportation:

"**91-38-10. Use of urban mass transportation buses.** (a) A governing body may contract with the operator of a mass transportation system to provide school transportation for its students. Any contract for this transportation shall include the information specified below in subsection (b).
(b) The operator shall keep and provide the following information to the governing body, upon request:
(1) Documentation of vehicle lubrication, maintenance, and repair as set forth in K.A.R. 91-38-(d);
(2) documentation that any vehicle used to transport students contains the emergency equipment required in K.A.R. 91-38-2(e); and
(3) documentation that each driver used to provide student transportation meets the qualification set forth in K.A.R. 91-38-6. This regulation shall be effective on and after July 1, 2000. (Authorized by and implementing K.S.A. 1998 Supp. 8-2009; effective July 1, 2000.)" (Kansas State Department of Education School Bus Safety Unit., 2017)

There is also a statute regarding the use of school buses for purposes other than student transportation:

"72-6498. School bus use for purposes other than student transportation; policy for provision authorized.
(a) Any board of education, pursuant to a policy developed and adopted by it, may provide for the use of district-owned or leased school buses when such buses are not being used for regularly required school purposes. The policy may provide for:
(1) (A) Transporting parents and other adults to or from school-related functions or activities; (B) transporting students to or from functions or activities sponsored by organizations, the membership of which is principally composed of children of school age; and (C) transporting persons engaged in field trips in connection with their participation in an adult education program maintained by the transporting school district or by any other school district, within or outside the boundaries of the transporting school district; and

(2) contracting with: (A) The governing body of any township, city or county for transportation of individuals, groups or organizations; (B) the governing authority of any nonpublic school for transportation of students attending such nonpublic school to or from interschool or intraschool functions or activities; (C) the board of trustees of any community college for transportation of students enrolled in such community college to or from attendance at class at the community college or to and from functions or activities of the community college; (D) a public recreation commission established and operated under the laws of this state, for any purposes related to the operation of the recreation commission and all programs and services thereof; (E) the board of education of any other school district for transportation, on a cooperative and shared-cost basis, of students, school personnel, parents and other adults to or from school-related functions or activities; or (F) a four-year college or university, area vocational school or area vocational-technical school for transportation of students to or from attendance at class at the four-year college or university, area vocational school or area vocational-technical school or for transportation of students, alumni and other members of the public to or from functions or activities of the four-year college or university, area vocational school or area vocational-technical school.

(b) The costs related to the use of school buses under the authority of this section shall not be considered in determining the transportation weighting of a school district under the Kansas school equity and enhancement act, K.S.A. 2017 Supp. 72-5131 et seq., and amendments thereto.

(c) Transportation fees may be charged by the board to offset, totally or in part, the costs incurred for the use of school buses under authority of this section.

(d) Any revenues received by a board of education as transportation fees or under any contract entered into pursuant to this section shall be deposited in the general fund of the school district and shall be considered reimbursements to the school district for the purpose of the Kansas school equity and enhancement act, K.S.A. 2017 Supp. 72-5131 et seq., and amendments thereto. Such revenues may be expended whether the same have been budgeted or not.

(e) The provisions of K.S.A. 8-1556(c), and amendments thereto, apply to the use of school buses under authority of this section.

History: L. 1984, ch. 270, § 2; L. 1993, ch. 264, § 6; L. 1995, ch. 237, § 1; L. 1997, ch. 133, § 1; L. 2003, ch. 116, § 13; L. 2015, ch. 4, § 60; L. 2017, ch. 95, § 87; July 1.

Source or Prior Law: 72-8316." (Kansas State Department of Education School Bus Safety Unit., 2017)

And finally, Kansas law KSA 72-8318 prohibits the use of any passenger vehicle for student transportation which is rated for more than 10 passengers plus the driver by the manufacturer. Federal law also prohibits the use of these vans and contains substantial penalties for schools, rental agencies, and vehicle dealerships (Kansas State Department of Education School Bus Safety Unit., 2017).

The Kansas School Bus Safety Regulations are a limiting factor in the type of coordination that occurs between agencies, so it is important to review the regulations carefully before developing a coordination relationship.

THE COORDINATION CONTINUUM

TCRP Project A-19, Integrating School Bus and Public Transportation Services in Non-Urban Communities, describes the coordination continuum between public transit and school bus partners, shown below.

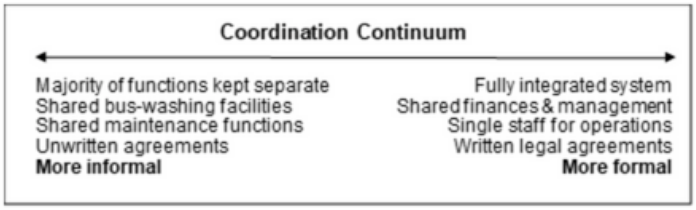

Figure 1: (Multisystems, Inc., et al., 1999)

Most transit agencies that work with school bus operations have a cooperative relationship, meaning that the two agencies operate separately but agree to work together to improve their services. This could include

things like joint purchasing, joint maintenance, or coordination of driver training. If, by coordination, one of the entities makes resources available to the other entity a joint-use agreement may be required. Documenting a specific arrangement is important when the shared resources include vehicles, staffing or facilities. The joint-use agreement details the arrangement and provides information about the federal or state rules and regulations that must be followed by all parties. It is important that any part of the program that has Federal Transit Administration (FTA) funding associated with it follow the FTA requirements. In rare instances, an agency may find benefit in a full integration of their programming with the school bus agency. In an integration scenario, the services are managed by one lead agency that assumes all responsibility. This would require formal contracts between the entities and specific documentation regarding how the provision of public transportation will be managed in a way that complies with FTA regulations (Multisystems, Inc., et al., 1999).

CREATING A COORDINATION APPROACH

In 2020, the Dallas-Fort Worth region developed a planning document that focused on the coordination of public transit and school district transportation. The purpose for developing a coordination approach was to reduce costs and gain funding, improve academic performance and expand school choice, increase transit ridership and ridership later in life, reduce environmental impact, and expand mobility options (North Central Texas Council of Governments, 2020). While at a much larger scale than transit agencies in Kansas, we can learn from their approach and scale it to meet the needs of smaller areas. Their plan included the following potential models of coordination and resource sharing:

1. Information sharing and coordinated planning: This includes sharing information related to travel demand to determine locations where a public transit program could be more effective than school bus transportation and aligning either school bell times or route schedules to maximize ridership.

2. Transit pass programs: Public transit pass programs can provide free or reduced priced fares to students. To pay for this program, there are a few options. The school district can enter a service contract and purchase the transportation up front., tOther options include having the transit agency absorb the cost of the pass program, it can be paid for by a donor, or it can be jointly funded.

3. Management and administrative activities coordination: This includes coordinating functions that are similar between the transit agency and the school bus agency. This includes driver background checks, drug and alcohol screening, vehicle maintenance, driver training, purchasing of parts and fuel, or joint dispatching.

4. Sharing infrastructure and physical stock: This includes sharing facilities for storage or maintenance or sharing vehicles. (North Central Texas Council of Governments, 2020)

CONCLUDING THOUGHTS:

With more than 25 million children (or 55% of the US K-12 student population) riding school buses, there is a fantastic opportunity to coordinate transportation and make this generation of young people into regular transit riders (Center for Cities + Schools, University of California, Berkeley, 2014). As costs increase and hiring drivers continues to be a challenge in our industry, identifying a coordination approach that benefits both the school district and the transit agency can be mutually beneficial. To identify a coordination strategy, it is essential that both parties are conversant in the rules and regulations governing their program. It is also important to develop goals that are agreed to by the governing boards of both organizations. Developing an implementation plan that includes short-, medium- and long-term strategies and plans for program evaluation will allow coordination to grow at a reasonable pace and only continue if it is effective.

CONTINUED ON NEXT PAGE

RESOURCES

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CONSIDERATIONS FOR DEVELOPING CONSISTENT TRANSIT SIGNING

By Payton Smith and Lanxi Liu, Kansas RTAP

Riding transit can be complex, it requires the agency to provide specific information on where and when to board, how to request a stop, and how to pay the fare. In order to provide this information in a way that can be understood by all individuals who ride transit, including those who have limited English comprehension or have cognitive or visual disabilities, developing a signing strategy that is consistent and easy to follow is extremely helpful. To ensure that the signage system is functioning as an integral part of its environment and that information is being effectively communicated three principal elements must be adhered to (TRB, 1996):

- Define the various user groups and understand their needs;
- Apply wayfinding principles to design; and
- Provide guidelines for design, content, and placement of signs

In the past, facilities have been built and marked with a preconceived notion of the user (TRB, 1996). The stereotypical user was an alert, physically healthy person with the only goal of exploring, using, and enjoying the environment or facility that had been created. The truth of modern facilities is quite different. Many users have mobility, vision, and cognitive limitations that make it difficult for them to navigate a facility. There are a variety of limitations, all of which vary in degree of severity.

The major impairments that affect wayfinding include sight impaired, blind, hearing impaired, deaf, cognitive impaired, literacy impaired, and mobility impaired all impact how people navigate signage differently (TRB, 1996) . For those with motor limitations, for instance, the ability to find information may be restricted by decreased lines of sight or actual obstructions that prevent them from

seeing it. A vast range of information, including text, symbols, and auditory announcements, may not be accessible to those with sensory impairments. The difficulties with navigation are exacerbated when a person has several disabilities. Designs must concentrate on a much wider and more accurate perspective of the final consumers since users do not constitute a single homogenous group. Planning and establishing an accessible transportation facility must take all relevant elements into account.

Wayfinding, also known as spatial problem solving, is the process of navigating a route and reaching a destination, such as finding your way to an elevator or doing a cross country road trip (TRB, 1996). In all instances of wayfinding, signage is imperative, but this is especially true when navigating transit, or transit facilities.

Transit signage can be the difference between getting on the right bus and making it to work on time or missing your bus and being an hour and a half late. Even more so, signage is an important tool that enables impaired or disabled riders to be able to navigate transit effectively. Being aware of how different design elements of signage, such as color and font, can impact the usefulness of a sign is crucial.
Some key elements to consider in signage design include; design characteristics, placement, and mode. Signage design characteristics include color, typography, and graphic elements (TRB, 1996).

COLOR

Color can impact the visibility or readability of signage, but when employed correctly color can make a signage system more user friendly (Katz, 2021). Two aspects of color, contrast, and color coding can assist in this. Contrast, the degree of difference between the lightest and darkest part of an object is an essential tool in accommodating users who are vision impaired, or color blind. Color combinations such as red and white, or black and yellow have enough contrast to be helpful to most users (TRB, 1996). Other combinations that are an acceptable contrast level are available in the table to the right provided by the Transportation Research Board.

COLOR COMBINATIONS - CONTRAST

	beige	white	dark gray	black	brown	pink	purple	green	orange	blue	yellow	red
red	78	84	32	38	7	57	28	24	62	13	82	0
yellow	14	16	73	89	80	58	75	76	52	79	0	
blue	75	82	21	47	7	50	17	12	56	0		
orange	44	60	44	76	59	12	47	50	0			
green	72	80	11	53	18	43	6	0				
purple	70	79	5	56	22	40	0					
pink	51	65	37	73	53	0						
brown	77	84	26	43	0							
black	89	91	58	0								
dark gray	69	78	0									
white	28	0										
beige	0											

do not use

acceptable

Source: Wayfinding People, Signs and Architecture, Paul Arthur and Romedi Passini

Figure 6. Percent contrast for various color combinations.

Another Important aspect to consider is color coding. Colors are used to convey meaning and it is important to take these meanings into consideration when signing, such as yellow often delineating caution.

TYPOGRAPHY

Case, style, and direction are important tools in conveying messaging and providing visibility of signage (TRB, 1996). Text on signs should be presented in straight lines and in conventional form fonts, such as Sans Serif fonts. These fonts are more readable for users with cognitive or vision impairments or disabilities. Some examples include Times Roman, Garamond, Futura, and Gills Sans. More helpful guidelines to adhere to are available in the TCRP Report 12: Guidelines for Transit Facility Signing and Graphics.

WORDS AND GRAPHIC ELEMENTS

Words should be used sparingly in signage and whenever possible substituted for graphics. IF words must be used, simple , direct language , not higher than a sixth-grade reading level is suggested (Katz, 2021). However, graphics are preferred for a few reasons. Users with cognitive disabilities may have trouble understanding complex language, some cognitive and visual impairments make reading words difficult, and non-English speaking users may not be able to understand the worlds at all (TRB, 1996). Graphics are a valuable tool at one's disposal and should be used generously.

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CONCLUSION

Not only should the needs of different user groups be considered in signage design, but also how they are presented. Sign placement is important, and viewing angle should be considered for all users, including wheelchair users whose viewing angle may be different than a typical user (TRB, 1996). Placement of tactile signs must also be considered to accommodate users. It is also important to recognize that signs are not accommodating to all user groups and that other resources such as tactile maps or announcements can be used to supplement these gaps.
Examples of helpful guidelines in which to ensure that a signage system is working effectively and adequately serving all user groups are available here.

RESOURCES

Jonathan Katz. July 2021. Accessible transit signage can work for everyone. Here's how. Greater Greater Washington. Retrieved October 14, 2022, from Accessible transit signage can work for everyone. Here's how. – Greater Greater Washington (ggwash.org)

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ELECTRIFYING TRANSIT VEHICLES

By Nikhila Gunda, Kansas RTAP

Some ideas that were once believed to be impossible are now proving to be possible. Among these ideas was using electricity to fuel vehicles. However, according to the 2017 Bloomberg New Energy Finance estimates, about 385,000 electric transit buses were in operation around the world and that number continues to rise (Electric Buses in Cities, 2018). Although electric buses still only make up small proportions of total fleets, more transit agencies are pursuing fleet electrification. Because electric buses are still a relatively new technology, transit agencies must be prepared for technical and logistical hurdles on the road to electrification.

Early adopters can benefit from switching to electric buses by gaining useful expertise in a developing industry and adding to the body of knowledge on transit electrification. With time and continued growth in knowledge, the gradual change in electrification of transit vehicles can successfully meet local public transportation needs. Some of the benefits and current challenges of electric bus adoption are outlined on the next page (GUIDE TO TRANSIT ELECTRIFICATION, n.d.).

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Benefits

- Reduces greenhouse gas emissions and other air pollutants
- Improves health of employees, passengers, and community
- Reduces noise pollution
- Likely to reduce fuel costs in the long term; potential cost savings depend on the type of charging infrastructure.
- Likely to reduce maintenance costs in the long term

Challenges

- Lack of staff familiarity with electric fleet, charging infrastructure, and electricity pricing
- Design flaws in bus or charging infrastructure technology, lack of interoperability between buses and charging infrastructure.
- Equipment supply chains are still maturing, which can lead to longer waits for new parts.
- May increase fuel costs in the short term
- May increase maintenance costs in the short term
- Higher upfront costs for buses and infrastructure

Lawrence Transit, Wichita Transit, Kansas City Area Transportation Authority (KCATA) and Topeka Metro have piloted or deployed electric transit buses. This article explores insights from Shofi Ull Azum (KCATA), Michael Tann (Wichita Transit) and Andy Fry (Topeka Metro), regarding their experience in planning and adopting electric transit vehicles in their respective agencies. Additionally, this article compiles advice and lessons learned from each of these transit agencies that can guide other transit agencies who are planning to electrify their transit vehicles. However, it is important to keep in mind that each transit agency's experience with electric buses may vary substantially from another.

KANSAS CITY AREA TRANSPORTATION AUTHORITY (AZUM, 2022)

KCATA is committed to the region's Climate Action Plan of reducing the emissions that will improve the financial and environmental health of the community. In October 2021, KCATA launched their first two electric buses that were manufactured by GILLIG LLC, with an estimated range up to 150miles. GILLIG is one of the leading manufacturers of heavy-duty transit buses in the United States. KCATA used Surface Transportation Program (STP) fund to get their first two buses and received a federal grant of $3.3 million to purchase additional batteries for electric buses, construct and install a charging infrastructure, and provide workforce training. After receiving the two electric buses in April 2021, the workforce was trained for six months, and service started in October 2021.

Fleet Procurement: Currently, KCATA has a mixed fleet with about 60% Compressed Natural Gas (CNG), 39% diesel hybrid, and less than 1% electric. They have ordered three more electric buses from GILLIG. Starting with two electric buses was their first step into zero-emission vehicles. Their short-term goal is to have 25% or more of their fleet be electric by 2027-28. Procurement is a critical piece in the whole process of fleet electrification. To make this process smoother, it is recommended that agencies to develop a zero-emission transition plan. A preliminary plan has been developed by KCATA and is currently being expanding to better understand timely vehicle procurement and financial plans. More detailed information will be illustrated in emission transition plan soon.

Charging and Infrastructure: Building electric infrastructure involves multiple layers. Expansion of the current infrastructure, especially the facility area, is the most critical piece. Currently, KCATA is installing a new transformer and switchboard that are dedicated to charging only electric buses. KCATA has partnered with Evergy, a Kansas electric utility provider company, to provide charging facilities such as transformers and related port installations for the electric buses. The current electric infrastructure, a 3000kW transformer, can charge up to 30 vehicles. With research and discussion, a detailed facility plan has been laid out to identify bus barns, charging points, power bolts, and dispensers dedicated to the electric fleet only. There is also an additional space allotted for future expansion that can serve up to 300 vehicles which includes, but is not limited to, transformer installations and related infrastructure.

Figure 1: KCATA Electric Fleet

Some of the upcoming charging infrastructures includes pantograph charging, inductive charging, and solar charging.

Electric Utility: Partnership and coordination with an electric utility company plays a vital role in planning and installing infrastructure for the electric transit fleet. It is important to develop a long-term plan while considering installation of electric infrastructure. Currently, the buses are charged overnight between 6:00 p.m. and 6:00 a.m. as the energy consumption rate is lower during nights and is charged at a special transit rate by Evergy. Overnight charging has proven to be more efficient than daytime charging by reducing 57% of the cost. The average cost per mile of operating electric buses is lower than CNG or diesel and it is one of the determining factors for bigger transit agencies who are opting for electric fleet.

Operations & Maintenance: Typically, a new electric bus comes with a warranty of up to two years. So far, a multitude of issues have been solved by GILLIG mechanics and technicians while the buses are still under warranty. It is estimated that the overall long-term maintenance cost for electric buses will be low. Since it is a fairly new technology, there is no proven data. To better understand the performance metrics, a study analysis will be conducted after one to two years of electric bus service.

Workforce Training: One of the biggest challenges, when it comes to new technology, is training employees and getting acquainted with the usage of technology. KCATA's crew including, but not limited to, operators, mechanics, dispatchers, and managers completed mandatory trainings provided by the GILLIG team.

Special trainings were also offered for handling high voltage maintenance and safety concerns. KCATA is currently in the process of developing a workforce training program. KCATA started training their employees at an early phase of their zero-emission transition plan with the GILLIG team. The training courses focus on the materials designed for zero-emission vehicles and battery electric buses. As of now, there are about 50 operators who have been trained to drive electric buses.

In the long-term, KCATA is considering employing a bus manufacturers technician/mechanic to resolve issues including spare part replacement, maintenance, and operation issues. This employee would be responsible for training the agency's staff, operators, technicians, and mechanic crew using classroom and hands-on experience courses. In addition, a three-step training process is in development which incorporates manufacturers' trainings, field trainings with other bigger agencies (like California) and partnering with local community colleges and universities to develop a structured program on innovative technologies in the transit industry.

Figure 2: KCATA Electric Fleet

Funding: KCATA was awarded FTA's Low- or No-Emission Grant Program and STP which helped in adopting and implementing the current electric infrastructure and will assist with some future purchases. The agency is also seeking more diverse funding from the FTA, and Department of Energy, to achieve their zero-emission goal by 2050. It is challenging for the agency to acquire the local match funding required to leverage additional federal grants but is actively pursuing possible sources.

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Experimenting with new programs always has its challenges. In the transit electrification sector, there are currently many uncertainties and unknowns for every agency and organization. It is challenging to not have solutions readily available, and most agencies are just having to learn as they go through the process. Because of these new challenges, it is important and required for the workforce to go through training and become knowledgeable about the new technology as possible. Additional time and effort in training the employees is a necessary consideration during the planning process. If not accounted for, the whole process may become inefficient and result in irreversible loss of resources. However, it is not just a concern of making sure employees are trained appropriately as operator/driver shortages are increasingly becoming an industry-wide challenge. Despite the challenges of limited knowledge and concerns around employees, the biggest challenge with electric buses is their operating range. The largest concern stemming from colder weather which reduces the length of operating time and requires drivers to return to the facility more often to recharge their vehicle.

Future Plans: KCATA has endorsed the Mid America Regional Council (MARC) Climate Action Plan, and their goal is to go zero emission by 2050. The short-term (five-year) plan of the agency is to procure up to 25 zero-emission vehicles and the necessary infrastructure. This short-term strategy will help in evaluating the operational and financial feasibility of this electrification process in Kansas City. Based on the performance metrics of CNG, electric and diesel fleets, a long-term decision and commitment about the future of electric buses will be made.

WICHITA TRANSIT (TANN, 2022)

Wichita is the first city in Kansas to operate 100% electric, zero emission buses. Wichita Transit started transitioning to electric vehicles in 2019 by replacing its diesel fleet with the American--made electric buses, Proterra Catalyst and Custom Coach Works (CCW) and then started their service in early 2020. In a news release, Mike Tann, Wichita Transit Director, said that "Transitioning to a zero-emission fleet will provide cleaner air that benefits the Wichita population, and these battery-powered vans combined with two-hour recharging capability really moves the needle in cost-saving to transit" (Hinkel, 2022). The agency's goal is to have an entire electric fleet by 2032 and be able to assist rural agencies with their transition to electrification.

Fleet Procurement: As of August 2022, there are 11 electric buses out of the 74 that are in service. Recently, Wichita transit received a $3.95 million award from the FTA which will be used to purchase 10 demand-response electric vans and install five 150kW in-depot charging stations. These new electric vans are expected to be delivered in Spring 2023 and will replace 10 of their 24 current vans. The agency's current plan is to replace all the diesel demand-response vans first, which typically average six years of useful life compared to the larger buses which average 12 years of service.

Charging and Infrastructure: One of the major challenges when planning and adopting a new technology is building infrastructure that supports these new technologies. Wichita Transit started planning for infrastructure in the early stages of their electrification process. Complete guidance was provided in planning and implementing charging infrastructure at the Wichita facility by Kansas electric utility provider, Evergy, and has benefited the agency in understanding their future demands as well. Currently, one transformer that supports 15 chargers has been installed to serve11 buses and four additional buses in the future. Based on the agency's growth, planning phases were created to set up the required infrastructure for the fleet electrification. Partnership with Proterra and Evergy has helped the agency in understanding the information related to infrastructure while applying for the grants in the early stages of the process.

Figure 3: Wichita Transit Electric Bus

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Electric Utility: Like KCATA, Wichita transit partnered with Evergy as their electric utility provider to provide service for their electric fleet. The buses are charged during the off-peak period, between 6:00 p.m. and 6:00 a.m., which helps to save significant amounts of money as the network-wide demand for electricity is lower during the night when most businesses are closed, and less electricity is used. The buses will almost exclusively be charged overnight, which is enough range for a bus to last a full day on Wichita's streets. Additionally, a new facility is being built in Wichita that offers opportunities for solar power and battery stations for the electric fleet in the future. Currently, most of the facilities are being upgraded with the use of infrastructure grants secured by the agency.

Operations & Maintenance: Due to minimal to no low fuel and maintenance costs with electric vehicles, spending more on operations has helped the agency to increase service on the streets. One of the common challenges in Kansas is securing operating dollars. However, now that the agency is saving money on fuel costs, more funding is available to cover operating costs. With the recent dramatic changes in fuel prices, operating electric buses has been found to be more efficient in the Wichita service area. Preventive maintenance on the electric components of the vehicle is typically done after four to five years of service, so, at this time, there is no data to perform a cost-benefit analysis on these new buses. It is estimated that about 38 to 40% savings will be made on what it would cost to operate an electric bus per mile as compared to what it costs a diesel bus per mile. A bonus to electric vehicles is that the vehicle's breaks last three times longer than on a diesel vehicle because of their efficient brake system.

Workforce Training: One of the agency's goals is to keep educating their employees about electrification, which has been included in their training courses. Agency mechanics were trained by Proterra and Complete Coach Works (CCW) on various electric vehicle systems. Some of the training components include hands-on experience with the manufacturer's equipment, in-class sessions, regular meetings and Q & A sessions, and field trips to manufacturers' facilities. With rigorous training, the agency will be able to have in--house mechanics. Drivers using the electric buses efficiently (recharging through the braking system) are rewarded regularly with gift cards which encourages them to understand the vehicle's electric system and improve performance.

Future Plans: Wichita Transit is currently working on its multi-phase plan to have a fully electric fleet by the year 2032.

TOPEKA METROPOLITAN TRANSIT AUTHORITY (FRY, 2022)

Figure 4: Topeka Metropolitan Transit Authority Electric Bus

Topeka Metro ordered their first three electric buses as part of a three-year pilot program to test their reliability with respect to weather, passenger loads, and states of battery charge. This will help the agency to better understand how electric buses could potentially be used and test this new technology in real operating conditions on the city streets. These three electric buses and related equipment are manufactured by Proterra, costing about $3.5 million in total. A portion of that $1.7million will be covered by a grant from the FTA's Low and No Emissions program in 2019. The delivery of the buses is expected to be within 12-18 months.

"We are thrilled to have this opportunity to bring a new type of bus to Topeka, featuring a cleaner and quieter ride that benefits our riders, and broader community," said Bob Nugent, Metro's General Manager. "These new buses will allow us to test innovative technologies and features that can hopefully be expanded upon in the future as we seek to diversify our services" ("Topeka Metro Board votes for six new buses", 2022).

Currently, the agency is working on an electrification plan that includes, but not limited to, potential operational changes, facility changes, identifying charging needs, and other implementation steps that will be occurring during the three-year pilot program. Similar to KCATA and Wichita Transit, Topeka Metro will be partnering with Evergy as their electric utility provider for the planning and installation of the electric infrastructure at the facility.

CONSIDERATIONS

Along with their experiences, the interviewees shared some points to consider when planning for the electrification of a transit fleet:

- Electrification of transit is a long-term commitment
- Determine agency goals and period of adoption (pilot, limited or full-scale deployment)
- Research before making a choice on manufacturer, charging infrastructure, and other essentials.
- Contact your electric utility for technical assistance early in the process
- Understand your operational and maintenance needs, and their costs
- Look for funding opportunities
- Reach out to other agencies with experience and expertise

CONCLUSION

Electrifying a transit fleet is an emerging technology and transit agencies must be ready for technical and logistical hurdles on the road to electrification. This gradual change in electrification of transit vehicles can successfully meet local public transportation need. If you are an agency who is planning to electrify their transit fleet, get started by contacting folks who have done this before in your state. The agencies mentioned in this article are also open to have conversations that can help other transit agencies in Kansas. Please feel free to contact Andy Fry (Topeka Metro), Michael Tann (Wichita Transit) and Shofi Ull Azum (KCATA) for more information about their experiences.

ACKNOWLEDGEMENTS

Big thanks to all the interviewees, Andy Fry from Topeka Metro, Michael Tann from Wichita Transit and Shofi Ull Azum from KCATA, for sharing valuable insights and experiences about their transit fleet electrification with Kansas RTAP.

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REASONABLE MODIFICATION – WHAT IS IT AND HOW TO APPLY IT TO YOUR TRANSIT AGENCY

By Anne Lowder, Kansas RTAP

As a transit agency, it is good to review policies and procedures to make sure they are up to date with the latest information. One policy to review is the American with Disability Act's Reasonable Modification Rule 49 CFR 27 and 37 to ensure that your programs, benefits, and services do not discriminate against persons with disabilities under this rule. This article will provide examples to clarify what reasonable modification is (and is not) to a transit agency. In most cases, you may only need to tweak some of your policies to allow for some reasonable exceptions to provide better accommodations.

DEFINING REASONABLE MODIFICATION

A modification is a change to a transit program's policies or practices that enables a person with a disability to use the service. According to the ADA National Network, for a modification to be reasonable, the change must not:

- Cause a direct threat to the health or safety of others.
- Fundamentally alters the service.
- Results in an undue financial or administrative burden to the agency.

Because every transit service is unique, the federal government does not have specific guidelines for what is a reasonable modification. More important is a thorough policy and a consistent process for receiving and evaluating reasonable modification requests.

PROCESS FOR MAKING A REASONABLE MODIFICATION POLICY

The process for making a reasonable modification is a local one. The rule does not require an exact process of Department of Transportation (DOT) or Federal Transit Administration (FTA) approval. Your existing policies and procedures may suffice—such as your complaint process, your paratransit eligibility process, your customer service process, and even your operating personnel when advanced notice is impracticable (Day, 2015). For example, an illegally parked car in front of a bus stop, so the operator has to pull up to a different location.

Whether you rely on existing processes or develop specific reasonable modification policies, the FTA's Reasonable Modification Policy: New Final Rule states there are some basic requirements that must be met.

A) Information on the reasonable modification process must be readily available to the public and must be acceptable. You can require advanced notice, but you also need flexibility in handling requests that are only practicable on the spot, like the obstructed bus stop.

B) People requesting reasonable modifications must describe what it is they are asking for and what they need to use the service, but they do not need to use the magic words "reasonable modification."

C) Flexibility is key to any process. It is not always going to be possible to anticipate every scenario. In some cases, things may be encountered that can only be addressed on the spot by the operator. An example would be a customer who is diabetic, and the bus driver observes that person eating or drinking. The operator points out that food and drink is not allowed on the bus. The customer explains that it is needed for a medical condition. That would end the situation with the operator acknowledging the medical need.

D) Document your responses or know where to find them, such as in your paratransit eligibility process, complaint process, etc. Tracking is not intended to be a burdensome process. There is no requirement for separate tracking process. The rule assumes existing processes will be sufficient. The reasonable modification process must be operated in good faith. For example, you cannot have a process that routinely rejects all requests for reasonable modification. In addition, under the revised section 27.13 you must also promptly communicate the response to the complainant including the reasons for the response and document the response.

E) You must advertise the complaint process, and you must ensure that procedures are accessible.

From FTA's Reasonable Modification Policy: New Final Rule

Reasonable Modifications that are not Reasonable Modifications
Fundamental alteration of service.
A direct threat to the health or safety of others.
Undue financial or administrative burden.

Fundamental Alteration
The fundamental alteration is a change so significant that it alters the nature of the service.

- Request for specific vehicles.
- Exclusive rides
- Attendant type functions like carrying packages or staying with unattended passengers.

Direct Threat
A direct threat means a significant risk to the health or safety of others. Examples include:

- Exposing a vehicle to hazards such as reversing down a narrow alley.
- Striking overhead objects like low hanging tree branches.
- Getting stuck in the mud.
- Leaving a vehicle unattended for a lengthy period of time.

Undue Financial or Administrative burden or is Not Needed by the Requester to use the Service

- Requesting a specific paratransit driver.
- Asking for paratransit service beyond the three-quarter mile bus route.

EXAMPLES OF REASONABLE MODIFICATION REQUEST:

- **Helping with Fare:** A visually impaired customer needs help with putting the fare in the fare box. Your agency has a policy that operators will not handle the fare. A reasonable modification to your policy on handling fares is that your operator will assist this customer.

- **Allowing Food and Drink:** Your agency is transporting a person who is diabetic. You have a "No Food or Drink" policy on your vehicles. A reasonable modification to that policy is to allow the diabetic person to eat or drink as needed to address their medical needs.

- **Helping Passengers through Snow and Ice:** A person in a mobility device needs help to the vehicle due to snow and ice at the pickup location. Your policy is that bus operators do not leave their vehicles to assist passengers. A slight change to your policy to allow helping the person in the mobility device maneuver through the snow and ice to board would be a reasonable modification.

- **Adjusting Stops near Construction Projects:** When scheduling a trip, a passenger with a mobility device may request the bus operator slightly adjust the designated boarding location so that he or she can board in an accessible location due to construction. Is this a reasonable modification? The answer is yes.

- **Helping Passengers Carry Packages:** Let's say your agency has a policy that limits the number of bags on the bus to 5 bags. Operators are not required to help passengers carry their packages, but a person with 5 bags is having trouble making it up the ramp. A reasonable modification would be for the operator to provide assistance for boarding by helping to get their packages on the vehicle.

CONTINUED ON NEXT PAGE

American Public Transportation Association Summary of USDOT's Reasonable Modification Final Rule
Effective Date: July 13, 2015

- Reasonable Modification applies to fixed route and paratransit
- Reasonable Modification does not require universal door to door transportation – Systems can remain curb to curb by policy as long as they consider and grant (as deemed appropriate) individual requests for door-to-door service
- In fixed route, reasonable modifications do not require route deviations, but could include special passenger notifications or the driver positioning the fixed route vehicle to avoid an obstacle in order to obtain accessibility
- Reasonable Modification does not require the assignment of a particular type or model of vehicle to service as long as the vehicle is ADA compliant
- Requires development of process (plan) and complaint process prior to implementation date
- Requires designation of an individual as a Reasonable Modification Coordinator
- Encourages determinations of reasonable modifications during eligibility process
- Presumes most reasonable modification requests will be made in advance at eligibility or through reservations process
- Does not require individuals to make reasonable modification requests in writing, in advance of use or use the term "reasonable modification"
- Does require transit agencies to document any reason to deny modification request
- Requires that real time reasonable modification requests to be evaluated and accommodated if deemed appropriate) by vehicle operators. Transit operators can require the operator to contact a supervisor prior to granting or denying a request as long as the operator has two-way communications.
- The rule only allows a denial of reasonable modification request for the following three reasons:
  - Modification would be a fundamental alteration of the service provided
  - Granting the modification would expose the requestor or the operator or other riders to a "Direct Threat."
  - The modification is not necessary for the individual to actually use the service
- If a modification is denied, the operator has a responsibility to provide an alternative "work around" if feasible to ensure accessibility
- Requires public notification of the plan and the contact information for the Reasonable Modification Coordinator
  - Phone number, email, physical address
  - Such information must be available in printed materials and on web sites.
  - Materials should describe the process for requesting reasonable modifications and process for filing a complaint
  - Requires prompt response to requests or complaints
- USDOT has provided Appendix E to provide illustrative examples of both appropriate and unacceptable "reasonable modifications"

IN SUM

Reasonable Modification helps persons with disabilities have full access to your transportation from origin-to-destination. Reasonable modification is a matter of tweaking polices, practices and procedures. Reasonable modification is not buying new equipment or fundamentally changing your services. Reasonable modification is common sense.

Additional Resources:

- National RTAP (Rural Transit Assistance Program) ADA Toolkit
- FTA C 4710.1 Circular - AMERICANS WITH DISABILITIES ACT (ADA): GUIDANCE

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FIRE EXTINGUISHER GUIDANCE FOR TRANSIT AGENCIES

By Karsh Bhatt and Payton Smith, Kansas RTAP

The fire extinguisher is an important safety tool for a transit agency. This article provides a brief history of fire extinguishers and some tips on their use.

THE INVENTION AND EVOLUTION

In 1723 British chemist Ambrose Godfrey obtained a patent for the first fire extinguisher (adminfr, 2019). It was made up of a pewter chamber holding gunpowder and a cask of liquid used to put out fires. Gunpowder was ignited using a series of connected fuses, which caused the gunpowder to explode and the solution to be dispersed. Many extinguishers were developed after this one, but it was not until the 1800s that the contemporary extinguisher was developed. Extinguishers today come in a wide variety of styles and colors and are available for any form of fire, but their internal mechanisms have not changed much. Numerous lives and pieces of property have been saved because of this compact, simple-to-use piece of equipment that is now found everywhere.

Figure 1: Evolution of the Fire Extinguisher from Fire Range

TYPES OF FIRE EXTINGUISHERS

Fire extinguishers are designed to put out fires by removing one of the four elements of fire: heat, fuel, oxygen, and a chemical reaction (ePact). To know which type of fire extinguisher should be used in each situation, one must understand the different types of fires and their unique characteristics. Below are the five fire classes.

Class A – Fires caused by ordinary combustible materials like cloth, wood, paper, rubber, and plastics

Class B – Fires caused by flammable liquids and gases, petroleum, tars, oils, solvents, alcohols, lacquers, and flammable gases

Class C – Fire caused by electrical equipment

Class D – Fire caused by combustible metals like titanium, magnesium, zirconium, sodium, potassium, and lithium

Class K – Fire caused by cooking appliances that involve vegetable or animal oils and fats

FIRE EXTINGUISHER	CLASS A	CLASS B	CLASS C	CLASS D	CLASS K
Water & Foam	✓				
Carbon Dioxide		✓	✓		
Dry Chemical	✓	✓	✓		
Wet Chemical					✓
Dry Powder				✓	
Water Mist	✓		✓		
Clean Agent		✓	✓		
Cartridge-Operated Dry Chemical	✓	✓	✓		

Figure 2: 8 Types of Fire Extinguishers and When to Use Them from ePACT

The above table shows which type of fire extinguisher is preferred in different classes of fire.

HOW TO USE A FIRE EXTINGUISHER?

Prepare staff of your transit agency so that anyone can

use a fire extinguisher in an emergency without any challenges (HSI, 2021). Remember the **PASS** acronym: Pull. Aim. Squeeze. Sweep.

Pull the top pin of the fire extinguisher. The lock will be released, allowing you to discharge the extinguishing agent.

Aim the fire extinguisher at the fire's base. The flames will be blown around if you aim at them, allowing them to spread and cause even more damage. However, aiming at the base will put it out.

Squeeze the fire extinguishers lever slowly. This will cause the extinguishing agent to be released.

Sweep the nozzle from side to side to cover the source of the fire until it is totally extinguished. Wait a few seconds to make sure the fire is fully out and will not reignite.

Figure 3: PASS demonstration by SafetySkills

A Quick Checklist before using a portable fire extinguisher

- Inform the fire department
- Alert other people
- Begin safe evacuation
- Find an escape route
- Notice the fire type and fire extinguisher type

PLACEMENT AND MAINTENANCE OF FIRE EXTINGUISHERS

Safely storing and maintaining a fire extinguisher is an important part of being prepared in the event of a fire (United States Department of Labor). Fire extinguishers should be available throughout the workplace and easily accessible. Such places include hallways, meeting rooms, kitchens, electrical rooms, transit vehicles, maintenance shops or near exits. Placement can depend on which type of fire extinguisher is being stored. Class A would be better suited for an office, while Class B would be a suited to a maintenance shop.

Fire extinguishers should be mounted to prevent them from being misused or damaged. How and at what height is dependent on what type of fire extinguisher is being stored, but all fire extinguishers should at least be 4 inches above the ground. More information regarding storage and installation is available at OSHA.gov. (USDL)

Fire extinguishers must be regularly maintained and inspected, as they are the first line of defense before a fire can potentially get out of control. Inspections should take place monthly and the following checklist, provided by OSHA, can be used to guide an inspection.

1. Is each extinguisher in its designated place, clearly visible, and not blocked by equipment, coats or other objects that could interfere with access during an emergency?
2. Is the nameplate with operating instructions legible and facing outward?
3. Is the pressure gauge showing that the extinguisher is fully charged (the needle should be in the green zone)?
4. Is the pin and tamper seal intact?
5. Is the extinguisher in good condition and showing no signs of physical damage, corrosion, or leakage?
6. Have all dry powder extinguishers been gently rocked top to bottom to make sure the powder is not packing?

If the answer to any of these questions is no, the fire extinguisher should be replaced or repaired immediately, as any of these could result in the failure of the fire extinguisher.

CONCLUSION

Fires can be devastating but by utilizing guidelines and precautions any transit agency can be prepared in the event of a fire. Proper knowledge, training, and preparation regarding the use of fire extinguishers can help prevent fires.

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KANSAS RTAP TRAINING, TRANSIT RESOURCES AND CONFERENCES

By Anne Lowder, Kansas RTAP

If you are interested in hosting a training class, I have started scheduling dates for 2023. Please contact Anne Lowder at alowder@ku.edu.

National Transit Institute (NTI)

The National Transit Institute (NTI) will continue to offer all courses virtually until 12/31/2022. Please follow this link to see NTI's scheduled webinars.

Rutgers University Division of Continuing Studies

EasterSeals Project Action Consulting

https://www.projectaction.com/courses-and-schedule/

Easterseals Project Action Consulting provides instruction in a variety of formats to meet your community's needs and budgets:
- In-Person Training
- Online Courses
- Webinars

They also lead sessions at a variety of conferences around the country throughout the year.

National Center for Applied Technology

https://n-catt.org/

Providing small-urban, rural, and tribal transit agencies with practical resources for replicable technological solutions and innovations. The site shares case studies, research, technologies, and provides information on technologies that enable solutions that solve problems and enable goals to be reached.

National Center for Mobility Management (NCMM)

https://nationalcenterformobilitymanagement.org/

The National Center for Mobility Management is a national technical assistance center funded through a cooperative agreement with the Federal Transit Administration and operated through a consortium of three national organizations—the American Public Transportation Association, the Community Transportation Association of America, and Easterseals Inc.

NATIONAL RTAP ELEARNING

Transit resources https://www.nationalrtap.org

- 2 the Point Training
- Boards that Perform
- Customer Driven Service
- Dispatching and Scheduling Training for Rural Transit Systems
- Emergency Procedures for Rural Transit Drivers
- Essential Skills for Trainers
- Fundamental Financial Management for Rural Transit Agencies
- How to Buy a Vehicle
- Introduction to Preventative Maintenance
- Reasonable Suspicion Training for Supervisors
- Risk Management for Rural Transit Managers
- Roles & Responsibilities of Transit Managers
- Problem Passengers: Managing Difficult Passengers & Situations
- START (Safety Training and Rural Transit) and START Online
- Substance Abuse Awareness Training
- Top Shops: Emergency Management in Vehicle Maintenance Facilities
- Transportation Coordination

Transportation Research Board (TRB)

TRB provides leadership in transportation improvements and innovation through trusted, timely, impartial, and evidence-based information exchange, research, and advice regarding all modes of transportation.

Federal Transit Administration (FTA)

Recruit – Hire – Train – Retain
The Transit Workforce Center is the Federal Transit Administration's first ever national technical assistance center for transit workforce development. Its mission is to help urban, suburban, tribal, and rural public transportation entities recruit, hire, train, and retain the diverse workforce needed now and in the future.
HOME - Transit Workforce Center

Community Transportation Association of America (CTAA)

CTAA's COVID-19 Resource Portal
https://ctaa.org/covid-19-resources/

- COVID-19 Recovery vendor list for Public Transportation
- Recommended COVID-10 Safety Protocols
- Public Transportation's Response to COVID-19
- CTAA's Best Practices Toolkit

CTAA's Online Training Center

https://ctaa.org/one-stop-online-offerings/

CTAA's online classes are designed to take at your own pace, whenever it is convenient for you. Simply select the course you want to take, and you will be taken to the course page to either take the course — if it is free — or to the pay page and then the course. Courses include:

- Recruiting, Building and Retaining a Sustainable Driver Workforce
- Front Line Supervisor Training
- Excellence in Training: Train-the-Trainer
- Understanding Passengers Who Have Experienced Trauma
- Passenger Assistance, Safety and Sensitivity (PASS)
- Volunteer Driver Safety
- Conflict Management and De-escalation for Transit Drivers and Supervisors

Conferences

TRB's Symposium on Visualization in Transportation
November 3-4, 2022, Washington, D.C.
https://trb.secure-platform.com/a/page/VisualizationSymposium

National RTAP, AASHTO MTAP, and NADTC
December 14, 2022, from 2:00-3:00 PM ET
Risky Business II: Insurance for Nonprofits and Small Transit Agencies

National RTAP State RTAP Manager Peer Roundtable
January 9, 2023
State RTAP Managers can register for this informal discussion and send topics they would like discussed to info@nationalrtap.org.

CTAA's Expo 2023
May 21 – May 25, 2023, Oklahoma City Oklahoma, CTAA's EXPO 2023
https://www.showsbee.com/fairs/85308-CTAA-EXPO-2023.html

DIRECTOR'S MESSAGE

By Lisa Koch, Kansa RTAP

Happy Autumn! We have had an exciting few months at Kansas RTAP. We enjoyed developing the programming for the Kansas Public Transit Association Conference. This is the first time that the conference had concurrent sessions on the first day of the conference and we were thrilled with the turnout and the feedback. Thanks to the KPTA board for their faith in us!

We also celebrated an important birthday! Thanks to all of you for participating in our RTAP 35th anniversary week! It was fun to see the different ways that the agencies participated! The University of Kansas Transportation Center is thrilled that we have had the opportunity to serve the rural transit community in Kansas as your RTAP center. Thanks to KDOT, the Federal Transit Administration and all of you for your support over the years.

We have a great newsletter for you this month! Each of the articles came from ideas or requests from transit providers. If you have ideas for newsletter content, please reach out to us at ksrtap@ku.edu.

SHARE!

If you know individuals who would like to receive our newsletter, please have them go to: www.ksrtap.org and sign up for the Kansas RTAP email list. There is a box to check to request electronic notification of each new issue of the TransReporter. Back issues are available at our website in the newsletter archives section.

RTAP KANSAS RURAL TRANSIT ASSISTANCE PROGRAM

KANSAS TRANSIT REPORTER

The Kansas Transit Reporter is an educational and technology transfer newsletter published quarterly by the University of Kansas Transportation Center (KUTC). The newsletter is free to rural and specialized transit providers and others with an interest in rural and specialized service.
The Kansas Transit Reporter is co-sponsored by the Federal Transit Administration under its Rural Transportation Assistance Program (rtap) and the Kansas Department of Transportation. The purposes of the RTAP program are to:
1) educate transit operators about the latest technologies in rural and specialized transit; 2) encourage their translation into practical application; and 3) to share information among operators.

KU TRANSPORTATION CENTER
The University of Kansas

RTAP KANSAS RURAL TRANSIT ASSISTANCE PROGRAM

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA