

Bob Clark's Electric

T r a n s i t T a l k

Vancouver celebrates 75 Years of Electric Bus Service Largest Electric Bus Fleet in Canada

While many cities dabble in relatively small numbers of battery buses in the hope that they will prove to be a means of achieving a future goal of a zero-emission fleet, Vancouver has been providing reliable zero-emission electric bus transport to the core of its service area for decades. 262 zero-emission electric buses in the form of electric trolleybuses regularly ply the streets of Vancouver and Burnaby, serving 13 of the busiest routes and carrying about 1/3 of revenue passengers in Greater Vancouver. It is the largest electric bus fleet in Canada.

This August, 75 years of operating this electric bus service was recognized at two events. (continued on Page 2)

Edmonton's LRT Line to Mill Woods set to Open Nov. 4th

In late June, TransEd—the consortium of companies with whom the City of Edmonton has partnered on its Valley Line LRT—announced that it needed to replace around 140 kilometres of signalling cables before Edmonton's Valley Line Southeast LRT could open to the public. This caused a further delay to the opening of the line—as if it had not been delayed enough already.

The consortium reported that some cables were found to be oxidized during testing. Replacement needed to be undertaken, according to a news release, “to improve the long-term system reliability of the trains”. TransEd indicated that they would absorb the added cost because of terms in the P3 public-private partnership with the City of Edmonton. (continued on Page 5)

San Francisco Relives Transit History during Heritage Weekend

On the weekend of September 23rd and 24th, public transit's colorful history came alive once again in San Francisco, as the San Francisco Municipal Transportation Agency (SFMTA) together with the non-profit Market Street Railway hosted another MUNI Heritage Weekend. The event is intended to demonstrate the important role attractive, efficient transit has played in building and shaping the San Francisco we know today and in keeping it livable.

The weekend event, typically hosted annually in September, gives the public an opportunity to ride and experience vintage streetcars, buses, trolleybuses as well as special cable cars that rarely operate. The world's oldest cable car (1883), one of the oldest surviving electric streetcars (1896), the very first streetcar MUNI owned (1912), and the wildly popular English open-top “boat tram” (1934) alongside vintage motor buses and electric trolleybuses all carried passengers between 10 a.m. and 4 p.m. on both days. An all-day pass could be purchased for \$5 that allowed a patron to ride cable cars all day; rides on other vintage vehicles were free. (continued on Page 5)

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Edmonton Trolley Coalition

www.trolleycoalition.org

Sustainable Transit for Liveable Communities



75 Years of Electric Buses in Vancouver (continued from Page 1)

On August 15th, a special event with a press conference was held at the Vancouver Transit Centre in Marpole, after which special guests were invited for a ride on a vintage 1947 trolleybus piloted by retired veteran transit operator Angus McIntyre clad in a vintage transit uniform.

At the VTC event, BC Provincial Environment Minister George Heyman congratulated Vancouver on 75 years of zero-emission transit and praised its steadfast commitment to sustainability. The Honorable Sean Fraser, Federal Minister of Housing, Infrastructure and Communities, said that trolleybuses were a big part of protecting the ability of people to move about sustainably in the future. He said that the Vancouver region not only had one of the biggest trolleybus systems in North America, but also one of the most effective transit systems in North America. TransLink CEO Kevin Quinn explained how trolleybuses had revolutionized how people travelled around the Vancouver region, and said that they had stood the test of time as exceptional zero-emission vehicles. He emphasized that the 100,000+ daily passenger boardings on Vancouver's electric trolley routes represent over 100,000 trips taken with zero tailpipe emissions. Michael McDaniel, President and CEO of Coast Mountain Bus Company, remarked that the trolleybus will lead transit operations into a more sustainable future. "The trolley will remain an iconic symbol of both our history and our future, as we get ready to renew these trolleys over the next few years," he said. He acknowledged the work of the staff who operate and maintain the electric trolley system, while Angus McIntyre, representing the Transit Museum Society, recognized the volunteers who had spent countless hours preparing two historic trolleybuses for operation to mark this special occasion.

On August 16th, beginning at 9:00 a.m. across from Waterfront Station on Cordova Street, two lovingly restored historic trolleybuses, a CCF Brill model T-44 from 1947 and a CCF Brill model T-48* from 1954, went into service offering free rides to the public on a route throughout the downtown area. The vintage vehicles were operated by volunteers from the Transit Museum Society. Citizens and visitors to the city lined up by the dozens at the boarding location in order to ride the historic vehicles. They took great delight in the unique experience, as could be seen in the expressions on their faces as the interior lights flickered when the poles passed through the overhead at intersections.

The first appearance of an electric trolleybus in Vancouver was in 1945, when a demonstration line carried passengers for 10 days from Burrard and Hastings to Alberni and Bidwell using a vehicle borrowed from Seattle. The war years had been hard on street railways across Canada, and many cities were faced with the dilemma of how best to renew their public transit infrastructure. The B.C. Electric Railway and the public were so impressed with the trolleybus demonstration that the company embarked on a "rails to rubber" campaign to convert its street railway operations to trolleybuses. Revenue service on Vancouver's first trolleybus route began on August 16, 1948 on a route serving Fraser and Cambie streets. Additional trolleybus routes materialized quickly. By the end of 1949, 168 trolleybuses were in operation, and by the late 1950's, there were 352.

The first trolleybuses to operate in Vancouver were Brill model T-44 vehicles with General Electric controls produced in Canada by the Canadian Car and Foundry plant in Fort William (now Thunder Bay), Ontario. Slightly larger Brill model T-48 trolleybuses soon came along and became the backbone of the fleet, providing service on the heaviest lines. In 1957, 25 Pullman trolleybuses were purchased used from Birmingham, Alabama to augment the Brill fleet, mostly providing service on long, straight routes such as the 41st Avenue line due to their heavy steering. (As ridership growth was much slower than had been predicted, the Pullmans were withdrawn after only a few years in service.)

Vancouver's Brill fleet was replaced by a fleet of 245 E901 and E902 trolleybuses built by Flyer Industries of Winnipeg in 1982-83. Several extensions to the trolley system were built in the 1980's, including an extension into Burnaby to serve Metrotown and an extension to the University of British Columbia. The first of Vancouver's current fleet of 262 trolleybuses arrived in 2005, produced by New Flyer of Winnipeg with propulsion equipment by the German company Vossloh Kiepe. Between 2006 and 2009, 187 New Flyer E40LFR and 74 E60LFR trolleybuses went into service. These were the first low floor trolleybuses to be used in Vancouver, and the E60LFRs represent the first fleet of articulated trolleybuses (a Hess articulated trolleybus was demonstrated in Vancouver in 1974).

TransLink's current trolleybus fleet is slated for replacement with new trolleybuses in the 2026-2029 time frame. TransLink recently began acquiring battery buses as a replacement for internal combustion vehicles, and it is envisioned that this technology will also be part of a move toward a 100% zero-emission transit fleet.

[* This particular T-48 model actually carries the designation T-48A, with the A designating a modification to the standard seating arrangement to accommodate more standees. Sources: Vancouver is Awesome, August 15, 2023; "Metro Vancouver marks the 75th Anniversary of the Trolley Bus", TransLink Youtube Channel, streamed August 15, 2023; "Trolleybus Essay", Transport Action BC at <https://bc.transportaction.ca/learning/technology/electric-trolley-buses/trolleybus-essay/> accessed October 26, 2023; the Buzzer Blog, August 16, 2023; Urbanized, August 15, 2023; CBC News, August 15, 2023]



Three electric buses pose for the camera at the August 15th ceremony at Vancouver Transit Centre. Left to right: a restored 1947 CCF Brill trolleybus, a current New Flyer trolleybus and a new battery-electric bus. [Photo: TransLink]



Volunteers from the Transit Museum Society assist as the public lines up August 16th at the boarding stop on Cordova Street to board 1954 trolleybus 2416 for a short excursion through Downtown. [Photo: Rob Chew]



Vancouver CCF Brill No. 2040, a 1947 model T-44 trolleybus wearing the BC Electric livery, glides along Cordova Street on its way to pick up more passengers, August 16, 2023. The free trips aboard vintage trolleybuses in celebration of 75 years of electric bus service drew large numbers of people. [Photo: Michael Marriott]



Piloted by retired veteran transit operator Angus McIntyre, Vancouver CCF Brill No. 2416, a 1954 model T-48A trolleybus wearing the BC Hydro livery, departs from the boarding stop on Cordova Street with another load of passengers, just ahead of regular service. [Photo: Rob Chew]



Vancouver is extremely fortunate to have preserved vintage transit vehicles. Very few cities or transit properties have such treasures. Vintage trolleybuses 2040 and 2416 have been meticulously restored and are maintained and operated by volunteers of the Transit Museum Society. [Photo: Michael Marriott]



A view out the front windshield of 1947 CCF Brill No. 2040, with veteran operator Fred Bradley at the helm. The dash is decorated with flowers, as was done back in August 1948 when electric trolleybuses debuted in Vancouver. [Photo: K. Brown]



LEFT & CENTER: 1950 Marmon-Herrington trolleybus No. 776 and 1952 PCC streetcar No. 1040, both restored in San Francisco's green and cream livery, operate during the MUNI Heritage Weekend, September 23-24. Marmon-Herrington vehicles, built in Indianapolis, Indiana, incorporated a lot of aluminum construction, making them light and agile. [Photos: M. Marriott]

CENTER: This ETI (Electric Transit Inc.) trolleybus may look new, but it is actually a historic vehicle from San Francisco's previous fleet. The vehicles were a Skoda design and were assembled in San Francisco. RIGHT: Flyer E800 trolleybus No. 5300 also took part in the MUNI Heritage Weekend. The Flyer E800s served SF between 1976 and 2007. [Photos: M. Marriott]



LEFT: SF has two "boat trams" that were imported from Blackpool, England. Dating from 1934, these open air streetcars are real head turners. [Photo: R. Stern]. CENTER: Streetcar No. 578 resembles a cable car, but it is not. This is San Francisco's oldest electric streetcar and dates from 1896. It was restored by MUNI in 1956. [Photo: Michael Marriott]

Vancouver Region's TransLink tests European Trolleybus with Longer Range Battery

At a Mayors' Council meeting in late June, TransLink's Director of Enterprise Sustainability Ralf Nielsen announced that during the month of August, the transit authority would test a new model of trolleybus from Europe that has longer range "In-Motion Charging". This new trolleybus has the ability to go off the overhead wires for distances up to 20 kilometres, with the battery then undergoing an in-motion recharge while in service upon reconnecting to the wires.

Although TransLink's existing trolleybuses already have off-wire capability, it is limited, mainly intended for short route detours. Such a vehicle represents a significant technological leap.



The vehicle on test was a Solaris Trollino IV 12 trolleybus manufactured in Poland. It was the first time a Solaris vehicle has come to North America. Media information from Solaris indicates that the company would very much like to enter the North American market in the future, and would produce only zero-emission vehicles for that market. The company saw this as an opportunity to acquaint a North American transit property with its product.

Nielsen said the upcoming test will enable TransLink to see how such a technology works on the existing trolleybus infrastructure, and what kind of upgrades may be needed on the overhead network if such vehicles are adopted for use.

TransLink's current fleet of 262 trolleybuses are due for replacement with new trolleybuses between 2026 and 2029.

[Sources: Urbanized (K. Chan), July 5, 2023; Sustainable Bus, Sept. 15, 2023; photo by Solaris]

Edmonton (con't from Page 1)

At the time, Dallas Lindskoog, spokesman for TransEd, indicated that workers would be installing new cables from north of Whitemud Drive to Downtown “as quickly as possible” through July and August. “Oxidized cables do not support long-term, sustained reliability of the LRT,” Lindskoog said. “While we upgrade the signalling cables, we are investigating why oxidization has occurred to some of them.”

In September, TransEd announced that the replacement of the cable had been completed, and that testing on the line had resumed in preparation for a fall opening. An independent team of safety auditors recently completed an audit of the line and has certified it. It appears that that time has now come, as the City of Edmonton has announced the line will open to the public on Saturday, November 4th. Trains will begin service at 5:15 am at the Mill Woods stop as well as at the 102 Street stop downtown. Trains will initially run at ten minute intervals during peak times, moving later to five minute intervals. In the evenings, service will be reduced to fifteen minutes.

The \$1.8-billion project began construction in the spring of 2016 and was originally set to open in December 2020. The most recent opening date was last summer, but the discovery of cracks in 18 support piers — which later rose to 30 of 45 piers — pushed the date back indefinitely. Following the completion of repairs to the support piers, the issues with oxidized cables were discovered.

The Valley Line Southeast will run 13 km from Downtown to Mill Woods, and features:

- 11 street-level stops
- An elevated station with a 1,300-spot Park and Ride facility and a full transit centre located in the Wagner industrial area
- The new Tawatinâ Bridge across North Saskatchewan River
- A short tunnel from the north face of the River Valley through to the Quarters redevelopment
- An interchange point at Churchill Square to access the existing Metro and Capital LRT lines

“This has been a long journey, with challenges and detours, but we’re confident in the system we’ve built. Our focus has always been, and will continue to be, delivering a safe, reliable system to Edmontonians,” TransEd Partners CEO, Ronald Joncas, said in a news release from the City of Edmonton.

Despite all the delays, Edmonton mayor Amarjeet Sohi said that the opening of this line still represents a significant milestone for Edmonton when it comes to accessing a sustainable, reliable mode of transportation.

[Sources: Edmonton Journal, June 26, 2023, October 25, 2023; CTV News Edmonton, October 24, 2023; City of Edmonton at Valley Line - Southeast | City of Edmonton, accessed October 25, 2023]

MUNI Heritage Weekend (con't from Page 1)

There was a constant flow of people boarding vintage streetcars and buses as they departed from the San Francisco Railway Museum on Steuart Street. Vintage trolley coaches built in 1950 and 1975 retraced Andrew Hallidie’s original 1873 Clay Street Railroad cable car route in celebration of 150 Years of Cable Cars. Several of the oldest streetcars offered rides between the museum and Pier 39. Streetcars from Milan, Melbourne and Brussels joined MUNI’s own double ended “torpedo” PCC cars in moving the public about the City by the Bay. Motor coaches from 1938, 1947, 1956 and 1970 operated on various historic routes, while the special cable cars ran on the California Street line.

On Saturday, patrons could ride the past to see the future, as vintage buses followed the old 40 Commuter route to take people to the Caltrain Peninsula Commuter Depot at Fourth and King Streets, where Caltrain had its brand new bilevel electric multiple unit train from Stadler on display.

Many of the event’s visitors are nostalgic locals, explained Rick Laubscher, President of the non-profit Market Street Railway. “It’s people who remember these vehicles from when they were young themselves, and they bring their kids, their grandkids,” Laubscher said. “You’ll see them as they ride, with a wistful look, because they remember the sounds, the bells, the feelings.” Yet others have traveled cross-country from Philadelphia, Baltimore, Boston and New York City. They’re people who “lost their heritage vehicles” when cities scrapped them in favor of newer ones, Laubscher said. San Francisco has retained many of its own.

At the plaza across from the SF Railway Museum booths were set up by transit history and advocacy groups. Games and activities for kids were offered, with a cable car bell they could ring. A “sidewalk sale” of rail history books and ephemera was going on, and souvenir items could be purchased, including items marking 150 years of cable cars in San Francisco. Authors Emiliano Echeverria and Michael Dolgushkin were on hand to sell and talk about their seminal e-books on the Market Street Railway Company of 1893 and its successor, United Railroads.

The Heritage Weekend was able to resume its two-day format this year for the first time since 2019. The event has been running for over ten years, with the exception of two years that were missed during the pandemic. With the success of this year’s event, many are already looking forward to the Heritage Weekend 2024.

[Sources: Market Street Railway (www.streetcar.org); San Francisco Chronicle, Sept. 23, 2023]

Vancouver's TransLink Looking at Using Excess Energy from SkyTrain and Trolley System to Charge Electric Vehicles

In June, TransLink announced that it would be conducting a study to look at using excess energy generated by its SkyTrain and trolleybus systems to charge electric vehicles. The study is a result of an idea from the 2022 Open Call for Innovation. If proven feasible, the idea could bring more transit vehicle chargers to SkyTrain stations and bus exchanges.

TransLink also put out an Open Call for Innovation in 2023 to seek new ways to maintain transit infrastructure. Submissions were accepted until September.

The Open Call for Innovation is an annual call encouraging entrepreneurs, businesses, inventors and innovators to help TransLink introduce new technology in its operations and maintenance practices. "We are always excited to collaborate with the best and brightest minds to ensure we are innovating transit as new technology emerges," says TransLink CEO Kevin Quinn. "Through the Open Call for Innovation, TransLink is always seeking innovative collaborations that have the potential to transform Metro Vancouver's transit system." [Source: TransLink Media Release, June 28, 2023]

150 Years of Cable Cars in SF

The San Francisco Municipal Transportation Agency (SFMTA) and its non-profit preservation partner, the Market Street Railway, joined together with a dozen organizations, including business and merchant groups and history and preservation non-profits, to stage special events marking the 150th anniversary of the city's famous cable cars.

"For the last 150 years, residents and visitors have enjoyed the incredible experience of riding cable cars through our neighborhoods to experience stunning bay views that are famous all over the world. You cannot imagine San Francisco without our iconic cable cars," said San Francisco Mayor London Breed. "No other city in the world has cable cars today. San Francisco was the first city with cable cars, and since 1957, we've been the only city to run them," said Rick Laubscher, president of the Market Street Railway.

Events marking the anniversary kicked off on June 13th as Board of Supervisors President Aaron Peskin and SFMTA Director of Transportation Jeffrey Tumlin joined civic, business and neighborhood leaders to ride the oldest surviving cable car, 'Big 19', originally built for service on Market Street in 1883.

The cable car that starred in the kickoff event is unique. In the 1880s, it was open-sided and carried riders from the Ferry Building out Market and Haight streets to enjoy Golden Gate Park. After the 1906 earthquake and fire, 'Big 19' moved to the Sacramento-Clay route, successor to Andrew Hallidie's original 1873 cable car line, and ran there from 1907 until 1942 when that line shut down. Restored by MUNI workers, 'Big 19' is one of the largest cable cars ever built. Decades after having been sold as surplus to a cattle rancher in Santa Barbara County when the O'Farrell line closed, Market Street Railway brought it back to San Francisco and worked with MUNI to restore it for service.

The actual 150th anniversary date was August 2. On that day, history reenactors portraying Hallidie, Emperor Norton, Domingo Ghirardelli, Lotta Crabtree and other notable San Franciscans from 150 years ago gathered at Hallidie Plaza at Powell and Market Streets to honor Hallidie's historic first run. A by-invitation luncheon followed, honoring cable car heroes, including Hallidie. Friedel Klussman, who saved the cable cars in 1947, Sen. Dianne Feinstein, who as mayor personally led the rebuilding of the system 40 years ago,

Fannie Mae Barnes, the first woman to work as a "gripman" operating a cable car 25 years ago, and others.

MUNI has also had 'Big 19' in regular service on the California Street line through the fall as part of the celebration. MUNI also completed restoration of car 42 in June for operation on its original Hyde Street tackage. Cable car 42 ran the O'Farrell, Jones & Hyde line until 1954, when the southern half of the line was abandoned, and the tracks on Hyde were connected to part of a Powell Street line. Car 42 retains its original 1907 paint scheme and details.

Additional events took place at selected venues in the City by the Bay. The San Francisco Public Library's San Francisco History Center featured an exhibit of historic cable car photos, in collaboration with the SFMTA Photo Archive. And Market Street Railway's free San Francisco Railway Museum on Steuart Street across from the Ferry Building opened a special exhibit on 150 years of cable cars in mid-July.

"San Francisco is famous for creating wonderful civic events, and what could be more wonderful than celebrating 150 years of cable cars," Tumlin said. "SFMTA owns and operates the cable cars as part of MUNI, but really, they belong to everyone, and we invite people from around the world, around the Bay, and around the block, to enjoy our iconic cable cars."

[Source: SFMTA/Mass Transit Magazine, June 13, 2023]



Cable Car 19 dates back to the 1880's and is one of the largest cable cars ever built. It was restored by MUNI and Market Street Railway craftspeople. [Photo: Michael Marriott]

Thunder Bay's Historic Brill Trolleybuses Moved to Oliver PaiPoonge Heritage Park

After a period of only 2 years at the Alexander Henry Museum, Thunder Bay's historic Brill trolleybuses were on the move again. This time, they have been relocated to a new home on Highway 61—the Oliver PaiPoonge Heritage Park, formerly known as the Pioneer Village Founders Museum. The two vintage vehicles were transported there on June 19th.

The buses were built at the local Canadian Car plant in 1948 and operated in Fort William and Port Arthur, Ontario until 1971. A local volunteer group, the Buddies of the Brills, located them in British Columbia in 2001 and worked for six years to restore them.

They were brought to the Pool 6 dock two years ago to be part of the Transportation Museum, but after a falling out between the museum and the Brill Society's President Charlie Brown, he decided to find a new facility to house them. Brown signed a two-year lease with the municipality of Oliver PaiPoonge.

He says the buses will fit right in with the classic cars, farm equipment and the old caboose at the Heritage Park. Brown told reporters: "We're extremely excited to get (the Brills) out here at Heritage Park. They have a great group of people to work with out here; this is a little hidden jewel that a lot of people don't really know about in Thunder Bay. There are other facilities with transportation artifacts around the city, and we would like to belong to some of them, but this one needs a little tender care, and we are more than happy to come out and participate with them."

[Source: TBNNewsWatch, June 20, 2023]

Calgary studies Rail Line to Airport

The provincial government of Alberta and the City of Calgary are partnering in a study to identify the optimal rail alignment between Downtown and the Calgary International Airport. The Province says the partnership "will help ensure the province is on track to deliver on a future of world-class transportation infrastructure." The project also brings the potential to "revolutionize Alberta's infrastructure" for both the business and tourism industries.

The study is expected to begin in October 2023 and be completed in August 2024 and will include a ridership review, development and evaluation of different alignment scenarios and will identify the optimal connection from Downtown to the airport.

The study will include engagement with the Canada Infrastructure Bank, the Calgary International Airport, Canadian Pacific Kansas City Railway and various private rail developers who are developing private project plans to connect downtown with the airport and the surrounding region.

"It's important for us to take a comprehensive look at all factors in this technically and physically constrained corridor to establish an optimal functional alignment that will best serve Calgarians, visitors and employees of the airport and surrounding lands. The study will consider existing rail plans, past city of Calgary transit studies and other opportunities to help guide future transit planning," said Michael Thompson, General Manager of Infrastructure Services for the City of Calgary.

Recommendations from the study will be provided to Calgary City Council. [Source: Mass Transit Magazine (MWL), July 11, 2023]

Toronto's Scarborough Line 3 Rapid Transit to be Shut Down

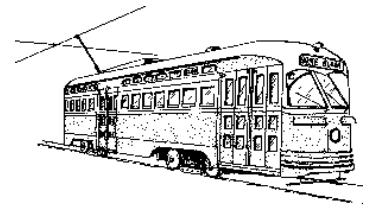
The TTC's Line 3, Scarborough Rapid Transit system (SRT), is a 6.4 kilometre intermediate capacity rapid transit line with six stations that opened in 1985. According to the TTC, the SRT trains have been in service 10 years past their design life.

Line 3 will officially cease operation on November 19, 2023. After only 38 years in service, its six stations, elevated guideways, and automated trains all being scrapped in favour of the upcoming Scarborough Subway Extension that will add three stations to Line 2 by 2030.

The TTC will deliver express bus service via an on-street bus replacement service with up to 70 buses per hour on Kennedy Road and Midland Avenue. The TTC and the City of Toronto will construct on-street transit priority measures to support the frequent bus replacement service.

The replacement bus service will operate at least until the completion of the Scarborough Subway Extension.

[Sources: TTC Media Release, accessed June 25, 2023 and www.blogto.com, June 21, 2023]



Streetcar Envisioned to Run Through Downtown Dallas, Texas

Dallas may be returning to its roots, back when streetcars ran through the length of the Downtown Business District in the 1920s and '30s. A plan is afoot at Dallas City Hall to connect two existing streetcar systems — the 2.45-mile Bishop Arts route that ends at EBJ/Union station and the M-Line Trolley, the 4.6-mile route that runs from the Dallas Arts District to West Village in Uptown. The plan, known as the Central Link, has been on the drawing board since 2005 and seeks to join the two lines by creating streetcar infrastructure through Downtown.

The project is a key part of a plan to change Downtown from a collection of office buildings into a vibrant residential community. The Central Link is still in the early stages of development but the director of the city's transportation department and a representative from Downtown Dallas Inc. said in a briefing to City Council that they plan to fund the nearly \$104 million of capital construction using Federal Transit Administration grants.

Before any construction begins, city staff want to create a sustainable plan to fund operations and maintenance that is expected to cost around \$7 million a year. They plan to bring in a consultant to evaluate funding strategies. They will also look at other streetcar systems around the country and how they fund their operation.

The Central Link project may be the key to building a robust streetcar system that can serve new areas and transportation needs that buses and other rail-based modes can't. [Source: Dallas Morning News, Oct. 20, 2023]

Oskaloosa, Iowa introduces *Trolley Stop Alley*

Oskaloosa is a city in Iowa of about 11,600 people. An important part of its history is now on display at the *Trolley Stop Alley*, dedicated to telling the story of the streetcars that served as Oskaloosa's public transportation system during the early 20th century. Located just off High Avenue West near Taso's, *Trolley Stop Alley* marks the historic location where Oskaloosa's streetcars stopped for passengers.

The *Trolley Stop Alley* is now home to a mock-up version of a streetcar, complete with historic photos of Oskaloosa taken when the streetcar system would have been active. Like the first alley remodel by Smokey Row, the *Trolley Stop Alley* features space for resting, dining and gathering, with the tables placed inside the streetcar. The alley also houses a streetcar mural painted by a local artist.

With the first horse-drawn streetcar debuting in Oskaloosa in 1888, the streetcar system was a mode of public transportation in the city for almost four decades. In 1897, the cars began to be powered by electricity instead of horses, and in 1925, they were replaced by a bus system.

"The sensation, hopefully, if you're sitting in there at the tables, is that you're actually riding a streetcar," says Project Steering Committee member Ann Brouwer. "We have historical pictures in the windows on the one side of it, and we have open air windows on the other ... So we hope that just kind of gives you a little bit of an idea of riding a streetcar."

Brouwer says preserving Oskaloosa's history is important to her because the history forms the city's identity. [Source: The Oskaloosa Herald, June 14, 2023]

Johnstown Society Seeking Help to Restore Rare Streetcar

For years, Johnstown Traction Co. Car No. 362 criss-crossed the city of Johnstown, Pennsylvania underneath overhead wires, carrying passengers to and from busy business districts. Soon, it will be on the move again — but only because its storage site has been sold to a new owner. Johnstown Area Heritage Association President Richard Burkert has less than a year to find a new home to store the 1926-era car — but he's hoping that there may be local interest to get it back on display in Johnstown. According to JAHA records, the car is quite rare--likely one of just eight still in existence.

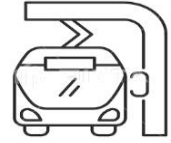
Given its years of wear and tear, the car needs plenty of work, Burkert said. "But it's worth saving", he added. "What we need is help. Right now, we'd love to find people willing to get involved in rehabilitating Car 362 so we can keep the Traction Company's memory alive." The group has long envisioned restoring the car, but its resources are limited.

A century ago, Johnstown Traction Co.'s familiar orange-colored electric streetcars were the predominant way of travel for commuters across Greater Johnstown and to destinations such as Luna Park. The private company — a predecessor of the public Cambria County Transit Authority — and its partners built the motors and rails in Johnstown, and its system outlasted most of its peers across the country.

Burkert said he'd be satisfied to see the historic streetcar restored as a static display piece, but for that to happen, JAHA needs help.

Ed Metka, a longtime streetcar collector who stored the vehicle for years in Windber, is also confident it can be restored as a museum piece. "It would be great for them to find a way to restore that car and keep it in Johnstown," said Metka, who recently sold the property where the streetcar is kept. "I hope it works out."

To contact JAHA, call 814-539-1889 or email the organization at info@jaha.org. [Source: The Tribune-Democrat, June 13, 2023]



Battery Bus Maker Proterra files for Bankruptcy Protection

Proterra Inc., a leading manufacturer of battery buses, filed for Chapter 11 bankruptcy protection on August 7. The company indicated the move is an “effort to strengthen its financial position through a recapitalization or going-concern sale,” stating that its filing will “maximize the value of its product lines”. The company blames “various market and macroeconomic headwinds” for its difficulties, saying that it has not been able to “efficiently scale its opportunities simultaneously”.

In January 2023, the company announced it would cut 300 jobs and consolidate its battery and bus manufacturing enterprise at its South Carolina facility as a cost saving measure. Proterra’s 2023 Q1 earnings report shows the company was in compliance with its debt covenants and had \$296 million in cash available, but noted the company would be exploring options to raise capital to avoid potential risk of not meeting its future financial obligations. A Bloomberg report said the company listed liabilities and assets of \$500 million each in its filing.

In a statement following the Chapter 11 filing, Proterra said it intends to “operate in the ordinary course of business” as the bankruptcy process plays out, suggesting that it will continue to manufacture and supply batteries, vehicles and parts.

It is, however, noteworthy, that recent news reports indicate there are a number of transit properties who have been impacted by problems with Proterra battery buses. The *Wall Street Journal* states in an August 11th article that the “company had a history of defective manufacturing and costly repairs, including cracked wheel wells in 2018. Two years later it discovered laminate cracks near bus door frames. The same year it issued a recall related to a component that could compromise steering”. An August 2021 article in the *Washington Free Beacon* said that Foothill Transit in southern California was planning to do away with several Proterra battery buses due to mechanical issues, including a January 2020 bus fire. An August 2022 article in *Support Transit* details problems that Philadelphia operator SEPTA experienced with Proterra battery buses that included cracked frames and cracks around light fixtures, windows and doors – sometimes with inch-sized pieces of frame missing.

Whether these quality control issues have affected the company’s financial health is, however, not something that the company has commented on. The company has sold over 1,000 battery buses to the North American market since 2010. The City of Edmonton purchased 60 of them. An August 18th article in *Taproot Edmonton*, indicates that Proterra’s bankruptcy filing documents show the City of Edmonton has an unsecured claim with the company of more than \$8 million, putting it among the 30 creditors with the largest unsecured claims.

[Sources: Mass Transit Magazine, August 8, 2023; WHYY (PBS), July 15, 2021; Support Transit, April 19, 2022; Wall Street Journal, August 11, 2023; Washington Free Beacon, July 27, 2021; Taproot Edmonton, August 18, 2023]

Connecticut Transit’s Battery Buses Return to Service

CTtransit’s New Flyer battery buses returned to service on July 31, just over a year after they were pulled from the road due to a fire and ensuing safety concerns. A defect in design was deemed responsible; a national recall took place. The manufacturer recalled the buses, and repairs were made to correct the defect.

“The return of the battery buses to service was important according to Connecticut Department of Transportation (CTDOT) Commissioner Garrett Eucalitto. “These buses operate in areas disproportionately burdened by air pollution, so removing diesel emissions is vital to the health and wellbeing of all our residents. In addition to having no emissions, these buses are quieter, provide a smoother ride and have lower maintenance costs than diesel vehicles.”

To safely return the vehicles to service, the Connecticut Department of Transportation worked closely with the bus manufacturer, the charger manufacturer, ABB, and CTtransit. The work included enhanced training for operators, as well as for those in the maintenance sector. In addition, enhancements were made to the battery thermal management systems and monitoring software.

Before being returned to service, each vehicle underwent a thorough inspection followed by comprehensive road testing.

Connecticut is planning to decarbonize its entire bus fleet by the year 2035 to reduce air pollution and dependency on fossil fuels. On July 14th, transportation officials touted a \$26.4 million federal grant for the state to purchase 20 more new battery buses and make infrastructure upgrades to CTtransit facilities in Stamford. This batch — likely to be split between two manufacturers, New Flyer and Proterra — should enter service in 2025.

The transition of the state’s fleet to electric vehicles was mandated by legislation passed last year which prohibits the purchase of new, diesel-powered buses beginning in 2024.

While Transportation Commissioner Garrett Eucalitto said he remained “very comfortable” purchasing battery buses following the fire and recall, House Minority Leader Vincent Candelora said he was surprised by CTDOT’s decision to return and expand the state’s fleet of electric buses without any public hearings being held into the cause of the fire. “I’m concerned that we’re continuing to double-down on these electric vehicle requirements, requiring school buses to go down this route, without fully understanding these lithium-ion batteries,” Candelora said.

While studies have found that electric vehicles are not at a greater risk of catching fire, the intense flames that can burn inside their lithium ion batteries pose a unique challenge to firefighters. The 40-foot-bus that ignited last July while parked in a CTtransit depot in Hamden was allowed to burn for “several hours,” according to a report by the National Transportation Safety Board, and continued to emit smoke and an “orange glow” for two days afterward. The fire sent two transit workers and a firefighter to hospital.

[Sources: CTDOT News Release, July 28, 2023, CTNH News, July 31, 2023; *Journal Inquirer*, Manchester, via Yahoo News, July 14, 2023]

Battery Bus Headline News . . .

☞ Calgary, Alberta is the recipient of \$325 million from the Canadian Federal Government to support conversion of its bus fleet to zero emissions. Calgary Transit plans to use the money towards the purchase of up to 259 zero-emission buses and to complete infrastructure upgrades at two transit garages to house and charge the new vehicles.

☞ BAE Systems has announced it will supply up to 541 “Gen 3” electric power and propulsion systems to equip new battery buses for the Toronto Transit Commission. These power systems will be compatible with current diagnostic tools used by the TTC for the maintenance of hybrid vehicles.

☞ The Canadian Federal Government and the Province of British Columbia have announced funding in the amount of \$400 million to allow BC Transit to purchase up to 115 battery buses and install 134 charging stations in the areas that it serves. 10 battery buses were already delivered to Victoria through a separate funding arrangement.

☞ Milwaukee, Wisconsin has pulled eleven Nova Bus LFSe+ battery buses used on its CONNECT 1 BRT line out of service out of an abundance of caution amid a recall. The vehicles will not be returned to service until the repairs have been completed. Milwaukee County Transit will deploy clean diesel buses in their place in the interim. Repairs will be completed at the cost of the manufacturer.

☞ The Chicago Transit Authority (CTA) has announced plans to double the size of its battery bus fleet to 47 by 2025 in an effort to advance its “Charging Forward” Plan for a zero-emission fleet by 2040. The new vehicles will be purchased through a contract option attached to a previous order that was awarded to Proterra.

☞ The San Diego Metropolitan Transit System has secured more than \$60 million in state funding to upgrade its streetcar system, known as the *San Diego Trolley*, and to beef up its battery bus fleet. The funds will be used to upgrade tracks, signals and safety features on the Orange Line and to electrify bus operations in Kearny Mesa, including the construction of an overhead charging system for 30 battery buses. MTS currently operates 13 battery buses, but is compelled by a state mandate to convert over 800 vehicles to zero-emission operation by 2040.

[Sources: Mass Transit Magazine (MWL), June 21, 2023; BAE Systems News Release, July 26, 2023; Global News, July 26, 2023; Patch.com Milwaukee WI, August 25, 2023; CTA media release, June 16, 2023; The San Diego Union-Tribune, May 4, 2023]

Purple *City Line* Buses now Rolling in Spokane, Washington

After the ribbon was cut and colorful party streamers shot into the air, eager riders boarded the first City Line bus on Saturday, July 16th at Coeur d'Alene Park in Spokane.

After years in the making, Spokane Transit Authority officials and the public finally celebrated the launch of the long-awaited Bus Rapid Transit service along the 6-mile City Line route.

60-foot, battery buses travel between Browne's Addition and Spokane Community College, with stops in Downtown, the University District and the Logan and Chief Garry Park neighborhoods.

"We considered a number of routes for this first line, but this one stood out quickly because of the places it connects," said Susan Meyer, CEO at Spokane Transit. "I call it the golden line." Meyer told the dozens who attended the opening celebration at Coeur d'Alene Park the purple buses will connect them to residences, retail, entertainment, learning centers and more.

The buses will reach a stop every 15 minutes for 17 hours a day and six days a week, with 30-minute service on Sunday, according to a City Line brochure distributed to riders Saturday. A higher frequency is expected next year.

The buses hold 90 passengers and have doors on both sides. Bicycles can be brought onto the bus through the rear door to the onboard bike racks, the brochure said.

Monitors at each stop provide real-time estimates of when the next bus leaves, and onboard screens show where the bus is along the line and upcoming stops, so riders know when to exit the bus.

As originally planned, the City Line was to be a premier service that would use electric trolleybuses, but expectations were lowered due to budgetary considerations. A number of significant changes were made, including the use of battery buses instead of trolleybuses. The Bus Rapid Transit line has taken over a decade to realize, and is the first of its kind in Eastern Washington. Federal, state and local partners chipped in to fund the line, and it is now reported that the line will come in \$10 million to \$14 million under budget. [Source: The Spokesman-Review, July 18, 2023]