# TRANSIT

# Seattle partners with San Francisco on order for New Generation of Electric Trolleybuses

New zero emission buses will use 30 percent less energy than current Seattle fleet

Seattle's King County Metro Transit announced on August 2<sup>nd</sup> that it will replace its aging trolley fleet with a new generation of trolley coaches that will require one-third less energy. Seattle operates the second-largest electric trolley fleet in the United States.

A 2009 county performance audit confirmed that, compared to their dieselhybrid counterparts, electric trolleybuses are quieter, use less energy, are better on hills and are more cost effective to operate.

Metro plans initially to purchase up to 141 trolleybuses for about \$164 million. Federal and Metro capital funds will be used to purchase the vehicles, with the first prototypes expected to arrive in May (40 foot prototype) and October (60 foot prototype) of 2014. Riders can expect to see new coaches hit Seattle streets in 2015.

The contract will also be a cost-saver for King County, as Metro has teamed up with the San Francisco Municipal Transportation Authority on a joint contract - a move that ensures both get the most competitive pricing. The full order, encompassing both 40 and 60 foot coaches for both transit authorities, is for up to 530 electric trolleybuses over five years.

"Electric trolleys have a lot of fans, and I'm one of them," said King County Executive Dow Constantine. "They're quiet, they run clean, they're part of our transit heritage, and studies confirm they're the best for moving riders in our very hilly and dense urban environment." (con't on page 2)



**VOL. 30** 

## Seattle – A City of Progress

Not only is Seattle renewing its electric trolleybus fleet with the latest in trolleybus technology, but a new streetcar line is also under construction. Following on the success of the South Lake Union streetcar line, the First Hill line will connect Pioneer Square with Capitol Hill via Chinatown, Little Saigon, Yesler Terrace and First Hill. Recently, the trolleybus special work at the intersection of Broadway and Madison was revised in preparation for installation of the streetcar wire. This complex intersection will handle both trolleybuses and streetcars in future. The trolleybus turn switches (eastbound to north, and westbound to south) have been moved further away from the intersection, on Madison. The First Hill streetcar line is scheduled to open in 2014.

The mayor's 2014 budget includes funds for planning North America's first "Rapid Trolleybus" line on Madison, which will initially provide service as far as 23<sup>rd</sup> Avenue. Financing for improvements to 23 Ave East, including new heavy duty utility poles that can accommodate trolleybus overhead wires, is also included in that budget.

[Source: International Trolleybus News, R. C. DeArmond/P. Shalit]



## New York abandons Hybrid Technology due to Maintenance Costs

Fifteen years ago, New York City rolled out its first hybrid buses in a program to "green up" that city's public transportation. Now, three years after the last diesel hybrid was purchased, it is cutting back on hybrid buses. One fourth of the 1, 677 hybrid vehicles are being pulled out of service and having their hybrid powertrains swapped out for diesel engines. The move comes in the wake of growing attention to greener technology and increasing efforts to reduce nitrogen oxide and particle emissions due to their health impacts.

The main reason for the swap to pure diesel is fiscal. As warranties expire on the hybrid powertrains, the city will have to cover the cost of maintaining the more complex hybrid systems. "They're so expensive to maintain that it'll be cheaper to stick a diesel engine in there," a source at the city's maintenance division told the New York Post. Indiana-based engine maker Cummins Inc. has been contracted to evaluate the best way to convert the buses to diesel.

According to an MTA representative, the hybrid buses work best on "intense stop-and-go routes where the average speed is 8 miles per hour." When the buses travel longer distances at higher speeds, the hybrid system is much less advantageous because the lithium ion battery cannot draw additional energy from braking and coasting activity. The MTA says it will retain hybrid powertrains in buses that serve heavy, slow-going routes in Manhattan.

[Source: International Business Times, July 1, 2013]

# Seattle orders New Trolleybuses

(con't from Page 1)

In recent years, Metro has refurbished and updated older trolleybuses in order to extend their service life. But modern electrical systems will offer advantages over the older technologies. The trolleybuses being replaced include 60-foot Breda buses originally purchased in 1990 to operate as diesel-electric and later converted to electric-only vehicles. Metro also is replacing its 40-foot Gillig trolleys that have controls based on a 1979 design.

"We squeezed hundreds of thousands of miles and decades of use out of the Bredas and Gilligs we are replacing," said Metro Transit General Manager Kevin Desmond. "But you can only make them last so long before it is more cost efficient to replace them than to repair them."

The new electric trolley buses will be supplied by a Winnipeg company and outfitted with electrical components by Vossloh-Kiepe – a world renowned producer of electric propulsion equipment. They will use an estimated 25-30 percent less energy than the current vehicles. They will have regenerative braking that puts power back into the supply system to be used by other trolleys operating in the vicinity. The trolleys also will be able to operate off-wire on battery power for short distances of up to five miles – a feature that will allow the vehicles to reliably reroute around collisions without the need to call for a push truck. It also will reduce the need to substitute diesel buses when construction affects transit routes in electric bus corridors.

The new trolleys will feature low floors for easier and faster boarding and exiting and include an updated system to secure wheelchairs. The longer 60 foot 'articulated' vehicles will have three doors, air conditioning and the ability to kneel the full length of the bus.

[Sources: Media Releases, King County Metro, August 2, 2013 and New Flyer Industries, August 2, 2013.]

#### Calgary to get new LRT cars

60 new LRT cars have been ordered from Munich-based Siemens to expand and partly re-equip Calgary's LRT system. The new model S200 cars will begin to arrive late in 2015, and will come as welcome relief to rush hour commuters who now ride in packed trains. First deployment will be on the Crowfoot-Somerset line, where congestion is greatest. Delivery of the cars is scheduled to be completed by December of 2016.

With the arrival of the new cars, Calgary Transit will move to four-car trains, giving each train greater capacity than they have with the current three-car trains. In recent months, CT has expanded platforms throughout the system in order to accommodate the longer trains.

35 of the new cars will go towards expansion of the system, and 25 will replace some of CT's oldest and most breakdown-prone vehicles.

Originally, Calgary had sought to purchase only 50 new cars at \$4 million each. But bulk buying through Siemans has allowed them to purchase 60 cars for about the same total cost as 50, amounting to roughly \$3.2 million per car. Of the \$200 million needed to purchase the cars, \$133 million comes from provincial "Green Trip" funding and the remaining \$67 million from local tax dollars allocated by City Council. (con't p. 3)

#### Calgary (con't)

The new cars will feature better seating, more efficient air conditioning, energy saving tinted windows and brighter, energy-saving LED lighting. The cars will also be equipped with regenerative braking to feed power back into the lines for other cars to use.

The public is being surveyed on the choice of exterior paint scheme. There are three different designs--dubbed "goalie mask", "buffalo" and "Bow" (after the Bow River)--to choose from.

[Source: Calgary Herald, September 12, 2013, courtesy Douglas Cowan]



Calgary Transit Siemens car 2232 pulls into the 4<sup>th</sup> Street Station sporting an "Investing in our Future" vinyl wrap that promotes LRT renewal and expansion as a partnership between the City of Calgary and the Province of Alberta. [Photo: Ken Baker]

# Edmonton Welcomes New General Manager of Transportation

On June 28<sup>th</sup>, the City of Edmonton announced the appointment of a new General Manager of Transportation. Dorian Wandzura is a professional engineer. He comes to Edmonton from Regina, Saskatchewan, where he served as Deputy City Manager and Chief Operating Officer. Wandzura was born in Edmonton. He was introduced to the public at an event marking 20 years of low floor bus service and 35 years of LRT held October 3<sup>rd</sup> at City Hall. One of the most significant projects that he will be involved in will be furthering the expansion of the city's growing light rail system.

Dorian Wandzura replaces Bob Boutilier, who came to Edmonton in July 2007 from Toronto, where he was deputy general manager of surface operations for the Toronto Transit Commission. While in Toronto, Boutilier was involved in a failed attempt to decommission that city's large and very successful electric streetcar system. Upon his arrival in Edmonton, he sided with administrators in a push to shut down this city's 140 km electric trolleybus network, ultimately resulting in the

loss of a sustainable transportation asset valued at over \$116 million. He claimed that \$100 million in savings could be used toward the construction of an LRT extension to Gorman in Edmonton's northeast. That extension is as yet unbuilt, and there has been no indication that any real savings resulted from trolley abandonment.

#### LA to Resurrect Streetcars

LA Metro is assisting the City of Los Angeles on the restoration of historic streetcar service in Downtown Los Angeles. Metro began work in 2011 in partnership with the former Community Redevelopment Agency of the City of Los Angeles, the LA Department of Transportation and the Bureau of Engineering.

The streetcar aims to support the revitalization of the Downtown districts and the historic core, and will function as an access point to make easier connections to the existing regional network. This includes numerous local and regional bus lines, Metro Rail stations and the planned Regional Connector service. [Source: News Release, LA Metro. Oct. 17. 2013]

# High Speed Electric Trains to come to U.S. soon

The California High-Speed Rail Authority and Amtrak have been in talks since January to team up on the purchase of dozens of electric trains that will be capable of carrying passengers at more than 200 mph.

California's proposed high-speed train system would eventually link San Francisco and Los Angeles by way of the central San Joaquin Valley. Initial operations are planned to begin by 2022 between Merced and the San Fernando Valley, and construction on the first segment between Madera and Fresno could begin late this year.

Earlier this year, Amtrak announced plans to upgrade tracks on its Northeast Corridor connecting Washington, D.C., New York and Boston, and to buy new high-speed train sets for the route's Acela Express. The Acela is currently the USA's fastest train, with a top speed of about 150 mph and an average of about 70 mph.

Frank Vacca, Chief Program Manager for the California High Speed Rail Authority, said the state's initial request would include about 20 trains needed for the Merced-Los Angeles operating segment. In partnering on the order, Amtrak would like to add new trains for the Acela Express. The California state rail agency's 2012 business plan anticipated spending about \$871 million for train sets on the Merced-San Fernando Valley segment. For 20 trains, that works out to about \$43.5 million each.

Unlike conventional freight or passenger trains that use locomotives to push or pull a string of unpowered cars, California and Amtrak are looking for "electric multiple unit" train sets configured with power/control cabs at each end and distributed power to the passenger cars to move the trains. Such "EMU systems" are common on high-speed rail lines around the world.

Because there are no true high-speed rail systems in America, "there are no North American manufacturers of high-speed rail equipment," Vacca said. "The market for these train sets is in the European and Asian markets." Combining California's and Amtrak's orders, Vacca added, will help make it worthwhile for manufacturers who must comply with federal "Buy America" requirements for high-speed rail equipment. "It will require a technology transfer to the U.S., and it will take a period of time for the successful manufacturer to do that technology transfer."

[Source: The Fresno Bee, September 16, 2013]

# First U.S. City to Abandon Electric Streetcars wants to put them back

San Antonio is determined to build a streetcar line, and wants its streetcar to replicate elements of the Seattle and Tampa streetcar systems -- the economic development successes around the Seattle line and the tourist-friendly character of Tampa's.

Seattle's modern South Lake Union streetcar passes through the kind of neighborhoods San Antonio downtown boosters dream about: shops, residential units and tech companies that draw thousands of young professionals every day, many hopping on and off the streetcar as it ferries them through a once-abandoned industrial district. It has proven a development success, albeit not without billions of dollars in private investment.

The Tampa system, on the other hand, is very different. It uses cars with a vintage look that run comparatively slowly over a single-track line, carrying mostly tourists to Ybor City, historically a cigar manufacturing centre that was once the home to many immigrants.

San Antonio officials have yet to pick the streetcar routes; at last check, four options were on the table, one of which would see a Convention Centre served. What San Antonio will accomplish with its streetcar could depend on many factors.

Seattle's streetcar line and surrounding neighborhoods owe their existence to the Real Estate Company Vulcan Inc. They jumpstarted the transformation over a 15 year period by paying a large portion of the costs. As a result of surrounding development, streetcar ridership increased by 75 percent in the six years following the opening of the line.

#### San Antonio (con't)

This wasn't the case in Tampa/Ybor City, and so far in San Antonio, no private investors or companies have pledged any money for the streetcar. And earlier this year, San Antonio City Council scrapped a provision that would have generated \$15 million in taxes from private property owners along the future streetcar route because there wasn't enough support. Pat DiGiovanni, CEO of San Antonio's Centro Partnership, proposed an initiative to secure between \$10 million and \$20 million in private-sector funding for the streetcar project, but it is not yet clear where that money will come from.

Chief Development Officer in San Antonio, Brian Buchanan, said the transit agency is not actively pursuing relationships with the private sector but added that they are "obviously looking for any and all financial contributions to the project."

The Seattle streetcar has an advantage because of the city's pro-transit orientation. Transit offers a variety of interesting and attractive options for commuters-- light rail, electric trolleybuses, ferries and even water taxis. Aside from its streetcar line, Tampa only has motor buses, and consequently it is a very car dependent city, and streetcar ridership is not very high. San Antonio's transit system is also bus-only.

A word of advice came from Santiago Corrada, President and CEO of Tampa's tourism bureau: Whatever the purpose for building a streetcar system, "make sure you put the right resources into making that work. If it's a tourist piece that connects assets," Corrada said, "then have that in mind when you market and when you sell it and when you set the fares for it and how you are going to operate it. If it's a mass transit kind of piece that's functional for daily commuters, then you need to think of how you position that."

[Excerpted/Condensed from San Antonio Express-News, September 9, 2013]

# Scania and Siemens developing vehicles with trolley assist to enable future eHighway



Sweden declares itself first on the pathway to electric mobility with this Scania-Siemens electric trolley truck. The vehicle can draw grid power by connecting to overhead set of wires contact present, or use a dieselelectric hybrid system where they are not. [Photo: Scania]

Scania and Siemens have entered into a partnership which involves the integration of Siemens' trolley-assist technology with Scania's expertise in the electrification of powertrains in trucks and buses.

Scania has for a long time explored the possibilities of electrifying the powertrains in buses and trucks, while Siemens has developed trolley-assist systems for heavy duty trucks and is selling its SIMINE trolley-assist system for mining trucks to that industry. At EVS26, an electric vehicle conference in Los Angeles in 2012, Siemens described its 'eHighway of the Future' concept for the electrification of on-road commercial trucks and select highway lanes via overhead electrified wires.

Scania's powertrain technology uses a hybrid powertrain supplemented by electricity supplied through overhead lines or through the road surface (induction). The vehicles are completely electrically powered on electrified road sections. In normal operation, eHighway heavy goods vehicles (HGVs) draw electric energy from a catenary system using a pantograph to establish contact with the overhead wire. Where there is no overhead line, the eHighway HGVs automatically switch over to their diesel-hybrid drive system. This means that they can be used as flexibly and universally as conventional HGVs.

An intelligent pantograph is used for direct transmission of electric power from the overhead wire to the eHighway heavy-duty truck. The actively controllable pantograph can be easily connected to and disconnected from the overhead line at speeds of up to 90 km/h (56 mph). Depending on operating mode, connection is made either automatically or manually at the push of a button.

The pantograph automatically compensates for any shifts in position within the lane. Moreover, the mobility of the pantograph minimizes the risk of selective wear on the current collector, substantially extending its useful life.

Siemens' e-Highway technology is being tested in Germany, with pilot projects planned for the ports of Los Angeles and Long Beach to connect various cargo centers. [Source: Green Car Congress, March 11, 2013]

## Pittsburg Officials want Noisy Buses out of Downtown

In an attempt to reduce noise levels and congestion, and make the downtown more attractive, the Pittsburgh Port Authority has begun working on a plan to remove buses and bus stops from the heart of Downtown Pittsburgh.

The plan, backed by County Executive Rich Fitzgerald and mayoral candidate Bill Peduto, would relocate routes and stops toward the edges of what is known as the Golden Triangle, creating a quiet, bus-free zone in the core of the downtown. Hundreds of diesel buses enter and leave the Golden Triangle each day.

The exact details have not been worked out, and Fitzgerald said the changes will not happen until sometime next year. "We don't want to rush into it and not do it right," he said.

Peduto said he envisions a circular route pattern using wider streets toward the edges of Downtown rather than having buses coming from four different directions and turning around in the middle of downtown. "[You] can actually make it so that all destinations in Downtown would only be a few blocks away. You could actually get people closer to where they are going," he said.

Fitzgerald acknowledged that some riders might have a longer walk to their destinations. "Bus service into Downtown Pittsburgh is not going to be a door-to-door operation. You may have to walk a couple of blocks. But the downtown is very walkable," he said.

A revised routing system would also seek to take advantage of the electric Light Rail Transit system, which is free Downtown, to move bus riders from the fringes to their destinations.

Downtown business owners have sought the relocation of bus routes and stops for years believing that slow moving buses contribute to traffic congestion, increased emissions and noise; they also claim that they cause crowding on sidewalks in front of their buildings where passengers wait for buses. The proposal has broad support in the Downtown business community and is backed by the Pittsburgh Downtown Partnership and Allegheny Conference on Community Development, Fitzgerald said. In recent years, the Port Authority has removed 22 bus routes from Forbes Avenue in Market Square and eliminated a bus stop at Fifth Avenue and Market Street due to complaints.

Input from riders also will be solicited as part of the process, Fitzgerald said.

[Pittsburgh Post-Gazette and PG Transportation Blog, October 4, 2013]

## Tucson Streetcar Line to open in 2014

Tucson, Ariz. is not ordinarily associated with progressive planning, but when it comes to rail transit, the desert community has become known through the work of the retirees guiding its downtown's development with a new streetcar line.

In early September, the first "dynamic-envelope" test of the 3.9 mile streetcar line took place - almost 10 years after the project was first conceived. It was a non-powered pull-through to make sure the new tracks, stations and other infrastructure worked correctly. Local TV was covered this milestone in the history of the \$196 million project.

The "Sun Link" streetcar line began on the heels of a failed a metropolitan transportation initiative. "While voters turned down the transportation initiative, there was huge support for transit in the downtown area," said Shelly Ginn, project manager for Sun Link. "That led to an analysis to see how we could connect our major activity centers." A liaison group was established with representatives from the business community, the University of Arizona, historic preservationists and others. They agreed that a streetcar line made sense that linked the campus, which borders downtown, through the central business district to a new development area on the west side.

In 2006, Tucson voters approved a half-cent sales tax for the Regional Transportation Authority that yielded \$87.7 million for the streetcar plan. Tucson later received a \$63 million federal grant in 2010 under the TIGER program, for Transportation Investment Generating Economic Recovery.

Ginn said the Tuscon project, like many rail-transit endeavors, was being justified for its development potential, not simply for moving people around. The Sun Link line isn't scheduled to start carrying passengers until next summer, but it already has stimulated an estimated \$800 million in public and private investment along its route.

[Source: The Kansas City Star, September 17, 2013]

# Vienna to Charge Small Battery Buses from Streetcar Overhead

Vienna, the Austrian capital, is employing small battery-electric buses on some of its routes that can recharge using the overhead power lines employed by its streetcar fleet. Twelve of the small vehicles are currently in service. The buses are made by the Rampini company in Perugia, Italy.



#### \$20 Million Grant for Kansas City Streetcar

U.S. Secretary of Transportation Anthony Foxx visited Kansas City on September 6<sup>th</sup> to promote the benefits of urban electric streetcars. He praised the city's streetcar project, saying the line would connect a "burgeoning central business district" to an "underserved" part of the city. He said the streetcar would create a new "mobility choice" and would create "significant economic impact."

The project was selected to receive a \$20 million federal grant from the U.S. Department of Transportation, which Foxx oversees. The \$20 million grant will cover 20 percent of the project's cost. The balance of the money, \$80 million, will come from local sources.

"I'm excited about it," said Annette Jones, owner of Zafar Salon & Boutique on Main Street. "I think that anything that enhances our city is for the best for all of us. Not just business owners but individuals that like to walk commute to downtown, this is a way."

Kansas City mayor Sly James promised that the streetcars will be operational by the summer of 2015.

[Fox4KC.com, September 6, 2013; The Charlotte Observer, September 6, 2013]

In implementing this service, Vienna is shifting from petroleum fuelled vehicles to a much greener, quieter mode, which will improve the atmosphere in its busy downtown as well as help to reduce global warming.

With the European Union's ambitious environmental goals, these vehicles represent part of a slow-moving revolution in urban transit towards electric technologies that is spreading throughout Europe – electric light rail, electric trolleybuses and smaller battery-electric vehicles. Siemens, which provided technology for the electric buses, is negotiating with at least five cities in Europe and two in South America that might adopt the Vienna system, said Andreas Laske of the eBus program at Siemens Rail Systems in Berlin.

The small red and white buses partly recharge in 10 to 15 minutes between runs by pulling into an existing tram station and hooking up to electric current via a pantograph, an arm on the roof of the bus that collects the electricity. At night, the batteries recharge fully at the depot. The battery buses cost more to buy than regular diesel buses, but there are savings in terms of fuel costs and maintenance.

Vienna's initiative was introduced in response to a series of European Commission initiatives to address climate change and reduce dependence on imported petroleum fuel. The commission has set a goal for member states to reduce transportation emissions by 60 percent by 2050. Buses account for as much as 60 percent of the public transit in Europe, and 95 percent of those use gasoline or diesel fuel.

[Source: New York Times, July 8, 2013, page B4, courtesy of E. Solez; photo Wiener Linien/Vienna Lines]

# Stavropol, Russia tests new Russian-made trolleybus with 15 km offwire capability

On October 25<sup>th</sup> the City of Stavropol, Russia began testing a new trolleybus produced by the Russian firm Trolza. The vehicle is the company's Megapolis model, and it has been outfitted with a special battery auxiliary power pack that will allow 15 km of offwire travel. Over the next year, the vehicle will ply the various trolleybus routes of Stavropol on test.

In August of this year, the trolleybus operator in Stavropol signed a contract with the ministry of Energy, Industry and Communication and the Saratov-based firm Trolza for the testing of this vehicle. The advantages of this vehicle over previous models lies not only in its ability to move away from the wires on battery power where necessary, but also in its ability to save energy and money. By storing braking energy, the vehicle is expected to produce a savings in electricity of about 40%. If the testing proves favorable, Stavropol will accept the prototype and order more of the vehicles.

Stavropol operates a trolleybus system of 12 routes using a fleet of 90 trolleybuses. [Source: Trolleymotion]

#### Historic Streetcar News

#### Will Historic Streetcars return to San Diego?

Recently when work crews dug up Park Boulevard north of University Avenue in San Diego for a bus lane project, they uncovered a piece of San Diego history: streetcar tracks from the time of San Diego's "Class I" cars.

Nobody in San Diego knows more about that city's 98-year-old street rail system than Christian Chaffee, a recipient of SOHO's prestigious People in Preservation Award. For the past 17 years, he and a number of supporters have been trying to get the Class I streetcars back on track.

"I see a streetcar as not only a real benefit to the future of the city, but I see it as something every citizen can use," Christian said. In a boatyard on Mission Gorge Road, Christian is restoring three of the original 24 streetcars built for the 1915 Panama Exposition. "Everything about them was designed to work in San Diego -- double-sided, double-ended, the turning radius of our streets, the incline of our hills," he said.

From 1939 to 1996, the Class I cars sat on an East County lot. "They were on Peach Avenue in El Cajon, and they were lived in by this little old lady, her name was Mrs. Lamb," Christian said. He bought them in 1996, founded *San Diego Historic Streetcars, Inc.* and began restoring them. "They were built in the arts and crafts style, with gold and silver leaf and bronze hardware," Christian said.

The reappearance of streetcar tracks during bus lane construction has drawn attention to Christian's work. Christian says he is confident that the old streetcars will be returned to service in San Diego. "I'll tell you why -- I'm not giving up until it happens," he said.

To read more about Christian's endeavours, visit http://www.sandiegohistoricstreetcars.org/

[Source: CBS8.com, October 3, 2013, courtesy Wallace Young]

## Scranton, Pennsylvania Trolley Restoration Project takes Fundraising Tour

A Road Scholar Transport Inc. trailer wrapped in an image of a historic streetcar made its public debut September 16<sup>th</sup> outside the Electric City Trolley Museum in Scranton, Pennsylvania, and it will soon be rolling over highways of East Coast states. The travelling trailer with its streetcar mural will promote the Electric City Trolley Museum Association and Project 505, which hopes to raise \$350,000 to restore a historic trolley to full operational condition. The trailer is like a huge canvas, depicting how the streetcar will look when fully restored.

Manufactured by Osgood Bradley Car Co., car 505 ran in Scranton from 1929 until streetcar service ended in 1954. It is one of only three trolleys that operated in the city that are known to still exist and the last surviving example of an Osgood Bradley Electromobile.

"We are going to use this trailer wrap as it goes over the highway to tell people our story and invite them to make their donations and contributions that will get this trolley back on its tracks and running again," said James Wert, Project 505 Chair. At 53 feet, the trailer is 11 feet longer than the 505, but the wrap is an otherwise accurate representation of the car, right down to the Scranton Transit blue and cream color scheme.

Dominic Keating, a Project 505 member, said what he liked most about the rendition is the people it shows in silhouette inside the trolley. "This is a car for the people of our area. This is a car for all of us, generations, to enjoy," he said. At the front of the trailer is a depiction of the motorman, who is identified as David L. Wert Sr. -- James Wert's son and a Road Scholar driver for 22 years.

[Source: The Times-Tribune, September 17, 2013]

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