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Evaluation of The Riverview Corridor Locally Preferred Alternative (LPA) and Options for Improved Service, Performance, and Lower Costs

Transit

James Schoettler • December 6, 2019

Editor's note: This was originally published under an incorrect byline. We regret the error.

The Riverview Corridor LPA for a "Modern Streetcar", from Downtown St. Paul to MSP and the Mall of America, progressed through numerous approval steps in 2018 and 2019. Despite efforts by myself and others to point out deficiencies in the LPA concept and suggest alternative solutions, the project continues, unburdened by the requirement to consider more viable options. It is now time to enter the Project Development phase. Requests for Proposal will soon be initiated and approved for millions of dollars of consulting work, which will cast the flawed LPA concept in concrete. Before this happens, I and other advocates for a comprehensive regional transit system believe it is important to discuss the deficiencies and again advocate that alternatives be considered in the Project Development phase. The Riverview Corridor is vitally important to the transit future of the region. It must be done right. There won't be money or time for a do over!

Importance of the Riverview Corridor

Convenient, reliable, and timely access to an international airport is critical to every modern metropolitan area. And anyone in the eastern third of the Twin Cities Metropolitan Area, riding transit to the Airport, must pass through the Riverview Corridor (the "Corridor") to get there. This

makes the Corridor one of the three most important regional transit routes in the Twin Cities (i.e. the “Transit Triangle” with the Blue line and Green line, connecting Downtown Minneapolis, Downtown St. Paul and the Airport). This leg of the triangle is especially important to Downtown St. Paul because, as the eastern crossroads for transit riders, it gives Downtown St. Paul access to a much wider range of prospective employees and visitors, and as more inter-city Amtrak and buses are added, it reinforces the St. Paul Union Depot as a major Gateway to the Twin Cities.

Recognizing these facts can serve St. Paul well. It is the essential rationale for building Light Rail Transit (LRT) in the Corridor because rail transit is needed to serve both a local ridership and a regional ridership. And it should be the clarion call to St. Paul and the East Metro to take action. But time is running out. Ramsey County is advancing its streetcar proposal to environmental review and, though construction may be many years off, will soon harden its Locally Preferred Alternative (LPA) – and St. Paul’s and the East Metro’s fate – into a transit-poor future. The following are the major concerns, as we see them:

St. Paul is Most Directly Affected – But No Plan for Rail in the Corridor

The majority of the Corridor is located in St. Paul, which is responsible for planning, zoning and public service delivery all along the Corridor between downtown and the river. Yet, all the planning and design of the LPA was done by Ramsey County. Over the lengthy design period, St. Paul did have representatives on the Technical Advisory Committee (TAC) and the Policy Advisory Committee (PAC) , but there was no St. Paul plan to guide these people for what the City wanted to achieve with transit in the Corridor. No planning had been done before or during this process for rail-transit-based-changes in Zoning, Redevelopment, public services, or the City’s comprehensive plan.

In fact, neither Ramsey County nor the Metropolitan Council had any specific plans for what needed to be achieved within the Corridor, even though the Corridor is the key artery for the eastern third of the Metropolitan Area. Had there been coordinated rail transit planning at the Metropolitan, County and City levels, the regional importance of the Corridor and the implications for the County and City would have been apparent.

Ford Site

The Ford Site is one of the most extraordinary development opportunities in the country because, among other things, it is 132 contiguous acres in the center of a major metropolitan area, close to two downtowns, an international airport, a seventy mile river park overseen by the National Park Service and many other scenic, historic, recreational, sports, and shopping attractions, not to mention 3,800 housing units and diverse employment opportunities adding approximately 8,000 new people to the area.

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A major practical and political problem with the Ford Site is the lack of arterial highway access. Virtually all access will need to be on local streets that are already congested. Highland residents affected by the congestion are deeply concerned, knowing that 3,800 additional residential units plus commercial development will not make this situation better. A solution is needed that will diminish the number of auto trips generated by the site.

When considering the alternative for including the Ford site in the LPA, the decision was made to exclude it, but offer a parallel study of the transit needs of the site. This was to be completed by now, but based on inquiries by the writer, has not been started. Nor, has any notice been taken of transit needs of the area in the Ford Site development plans.

There is a solution and it emanates from the primary appeal of the location – in the middle of the region, close to three of its largest destination and employment centers. Many people moving to the Ford Site will work in or regularly visit these centers and other destinations on the LRT system. So, the Ford Site is a development crying out for rail transit, to be part of the region's LRT system; it could make the Ford Development a transit-based community, significantly reducing the use of automobiles.

As explained below, the Ford Site is on the best and lowest cost route for rail transit in the Corridor, including the crossing of the Mississippi River. But the LPA ignores all of this.

LPA River Crossing

The LPA crosses the Mississippi River along Highway 5 at Fort Snelling, completely ignoring the Ford Site. Only two potential crossings were considered by the LPA: Highway 5 at Fort Snelling and the Ford Bridge. The possibility of a new crossing between these two alternatives was only briefly mentioned and then discarded without evaluation.

The Ford Bridge crossing was eliminated due to strong opposition from the SE Minneapolis neighborhood. Residents pointed out that the Minneapolis side is already well served by the Blue Line with related buses and does not need additional transit service, the proposed street rights-of-way are too narrow, and crossing both Highway 55 and the parallel rail line would be very difficult and costly. It would also add fifteen minutes to Airport travel time. It is understandable that this alternative was eliminated.

The LPA's selected crossing at Historic Fort Snelling State Park is highly problematic. It will require a new bridge across the river gorge, parallel to Highway 5 and then a long tunnel (cut and cover) that requires blasting through Historic Fort Snelling in a narrow alignment parallel and adjoining the Highway 5 tunnel while remaining south and west of the historic Cavalry Barracks, which are designated to become the new visitor center. The tunnel must make a sharp turn northward for several hundred feet before emerging. The route then bridges over Highway 55 and eventually joins the Blue Line east of the airport. The Riverview development staff estimates the cost of this segment will total $520 million.

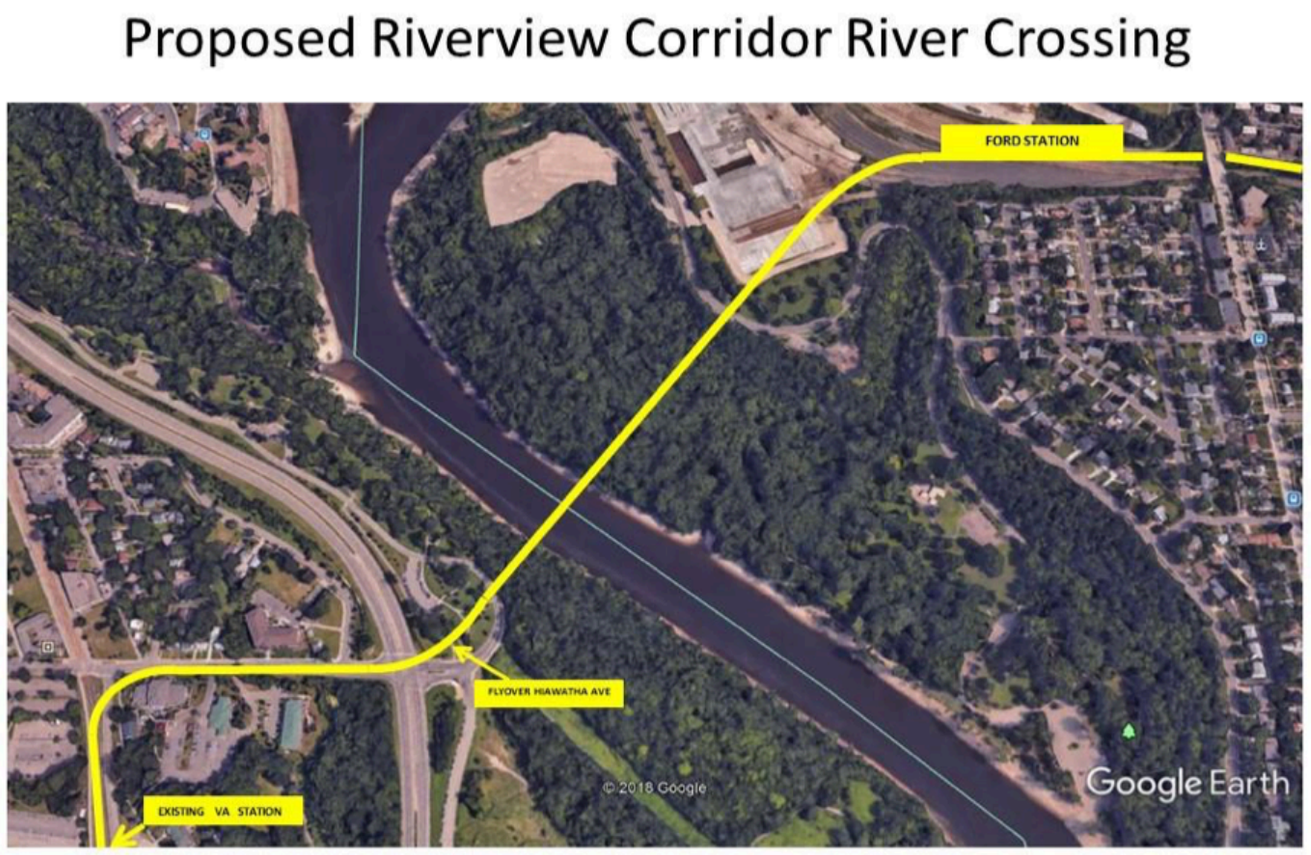
The route traverses an area with some of the most important Native American and Minnesota significance. It has deep historic and spiritual significance to Native Americans and particularly important historic significance to the early development of Minnesota, stretching through WWII. And, the site has important archaeological importance for both.

Moreover, as the site of the confluence of both the Minnesota and Mississippi Rivers in a wide river valley with steep sandstone and limestone bluffs and hills formed by the glaciers, the area has enormous environmental importance, including designation as both a Critical Area under state law and as part of the Mississippi National River and Recreation Area, administered by the National Park Service.

Given all these issues, it might be expected that the PAC would explore alternatives to the two existing crossings, but the PAC deliberately excluded a new crossing from consideration.

Alternative Ford Site River Crossing

Had the PAC considered a new crossing, it would have soon become apparent that there is only one alternative, but it is a very good alternative. A new crossing from the Ford Site would have minimal problems and much lower cost than either Highway 5 or the Ford Bridge and it would eliminate all the problems of the Highway 5 – Fort Snelling crossing. This one ideal location would cross the river from the SW corner of the Ford Site, over the 54th & Hiawatha intersection and up 54th to the Blue Line, just above the Veterans Hospital station. A Ford Station would be located on the CP Spur property, just west of Cleveland Avenue.



The bridge would be for transit and pedestrian/bike trails only, thus avoiding the land use and infrastructure requirements of automobile traffic.

It is also important to note that the policies of the National Park Service management plan specifically do not prohibit a new river crossing.

The geology, geography and length of this crossing are very similar to that of the Highway 5 crossing, so it is assumed that this bridge would be about the same price, or $170 million. We estimate that a bridge over the Highway 55 crossing and then up a quarter mile to the Blue Line would cost an additional $50 million and then we add another $50 million for other costs. This totals $270 million, $250 million less than the LPA.

This alternative crossing would eliminate all the problems with the Fort Snelling crossing, would serve the Ford Site and reduce congestion, and it would save a quarter billion dollars!

Alternative Route

It is very difficult to establish a new route for rail transit in an already built-up urban area. Most transit planners can only dream of an existing graded linear route through the corridor they want to serve. But in the case of Riverview, no dreaming is required. The Canadian Pacific's unused Ford Spur provides a route west, straight to the single best location to cross the river at the Ford Site and running east all the way to Western Street & Grace Ave. From this eastern point, the transit route can bridge over the Union Pacific tracks and follow Shepard Road to Downtown St. Paul. The Spur is available for purchase and is wide enough for both bicycle and pedestrian trails alongside (the St. Paul Department of Planning & Economic Development has prepared an excellent study of the Spur, which confirms this). The Spur would eliminate any rail transit on West 7th Street, especially in the eastern entertainment district. Sidewalks could be widened, pedestrians will be safer and business will be able to grow.

But this Crown Jewel of the Riverview Corridor was virtually ignored by the Riverview Corridor study committee. The spur alignment goes through the middle of the Corridor rather than the edge, like W 7th St. and could save as much as $100 million in road reconstruction costs.

Reliability of Streetcar (on 7th) versus LRT (on dedicated ROW)

Reliability is one of the most important attributes sought by transit riders to the Airport, both air passengers and Airport employees. A single unit streetcar, traveling on a public road with autos, trucks, school buses, emergency vehicles, construction equipment, utility repairs, pedestrians, bicycles, scooters, turning vehicles, stalled vehicles, snowplows, etc., will not be reliable, not to mention rush hour, snow, ice, storms, accidents and other causes of congestion. An LRT System on a dedicated alignment would eliminate virtually all of these issues.

Scalability of the LPA

Any increase in the number of units of the streetcar from the LPA's proposed single unit, or any increase in the frequency of the streetcars, will cause a corresponding increase in congestion along West 7th Street. Likewise, any increase in traffic along West 7th Street will have a corresponding diminishment of the ability of the streetcar to meet its schedule and capacity. Moreover, it is unlikely that the number of streetcar units linked together could ever exceed two, because of the short blocks along West 7th Street and in Downtown St. Paul; otherwise portions of the train would block traffic on cross streets.

All of these problems are necessarily incumbent and inescapable with a streetcar and virtually all of these problems are eliminated with LRT that follows its own dedicated guideway. It is fully possible to have LRT with its own dedicated guideway in this Corridor; LRT should not be, and does not need to be on West 7th Street; LRT is likely to be more efficient with much greater scalability than streetcar; and LRT trip times from end to end are likely to be shorter and more reliable than streetcar. The key is that rail transit be on its own dedicated guideway.

Trip Time Favors LRT

A recent study was done to compare velocities and trip times of the LPA modern streetcar with current bus and the alternative route configuration recommended above. The comparisons were based on current Metro bus schedules, Modern Streetcar projections and observed streetcar performances in other locales. Importantly, the Riverview Modern Streetcar offers no improvement in transit times between downtown and the airport compared to the current 54 Express bus. Conversely, projected light rail configurations operating completely off West 7th through dedicated corridors, and using performance metrics taken from existing Denver and Los Angeles LRT systems with similar configurations, would make the trip between downtown and MSP at least four minutes faster than the proposed Modern Streetcar, even while serving the Ford Site. This is a significant, 30+% mobility improvement for Riverview riders that is simply unavailable with the proposed West 7th streetcar alignment…even if not encumbered by street traffic.

Downtown Concerns

Entertainment District – Demands and Conflicts

The first mile of West Seventh west of Kellogg Pkwy is fast becoming a major entertainment district related to the Xcel and other venues. This is also the narrowest portion of West Seventh with a lot of traffic, pedestrians and congestion. Running a streetcar, even just one way, through this area will increase congestion, add to delays and travel time and decrease overall transit reliability. Moreover, the growing pedestrian volumes in this area require wider and safer sidewalks, not narrower and more dangerous sidewalks. Rail transit should not be on West Seventh.

Similar constraints exist on 5th Street, from its intersection with 7th to Cedar St. where the LPA envisions joining the existing Green line tracks. This street is a principal entrance to Downtown from I-94 and I-35W, and is relatively narrow. It is presently congested at times of high volume traffic. Blocks are short, and buses frequently fill one entire traffic lane per traffic light cycle. Delivery trucks frequently fill another lane. 6th street has similar issues including the potential crossover turn from Green line tracks on Cedar to 6th street – going uphill. Addition of a streetcar will only make these problems worse.

Mid and Lowertown Congestion

Currently, Green Line trains operate every 10 minutes, resulting in trains crossing streets from Cedar to the St. Paul Union Depot (SPUD) on the average of every 5 minutes. With a similar Riverview streetcar schedule, this would decrease to every 2.5 minutes…if all goes well. And, if actual schedules vary, there could be similar delays and congestion as the trains merge. A third track could be installed east of Minnesota St. but that would completely cut off 4th St. for auto, delivery and emergency vehicles. Some additional space consideration would have to be given for the streetcar turn-around at SPUD.

Disruption Due to Construction

The estimated two year LPA construction period for demolishing and rebuilding downtown streets and sidewalks and storm sewer, sanitary sewer, water supply, gas utilities, electric utilities, communications utilities, district heating, street lighting, stop lights, signage, etc. to build one

eastbound line on one street and one westbound line on another street will be enormously costly and disruptive to Downtown St. Paul. There are alternatives that will not cause this disruption.

Competition for All Modes of Surface Transportation on Existing Rights-of-Way Downtown St. Paul

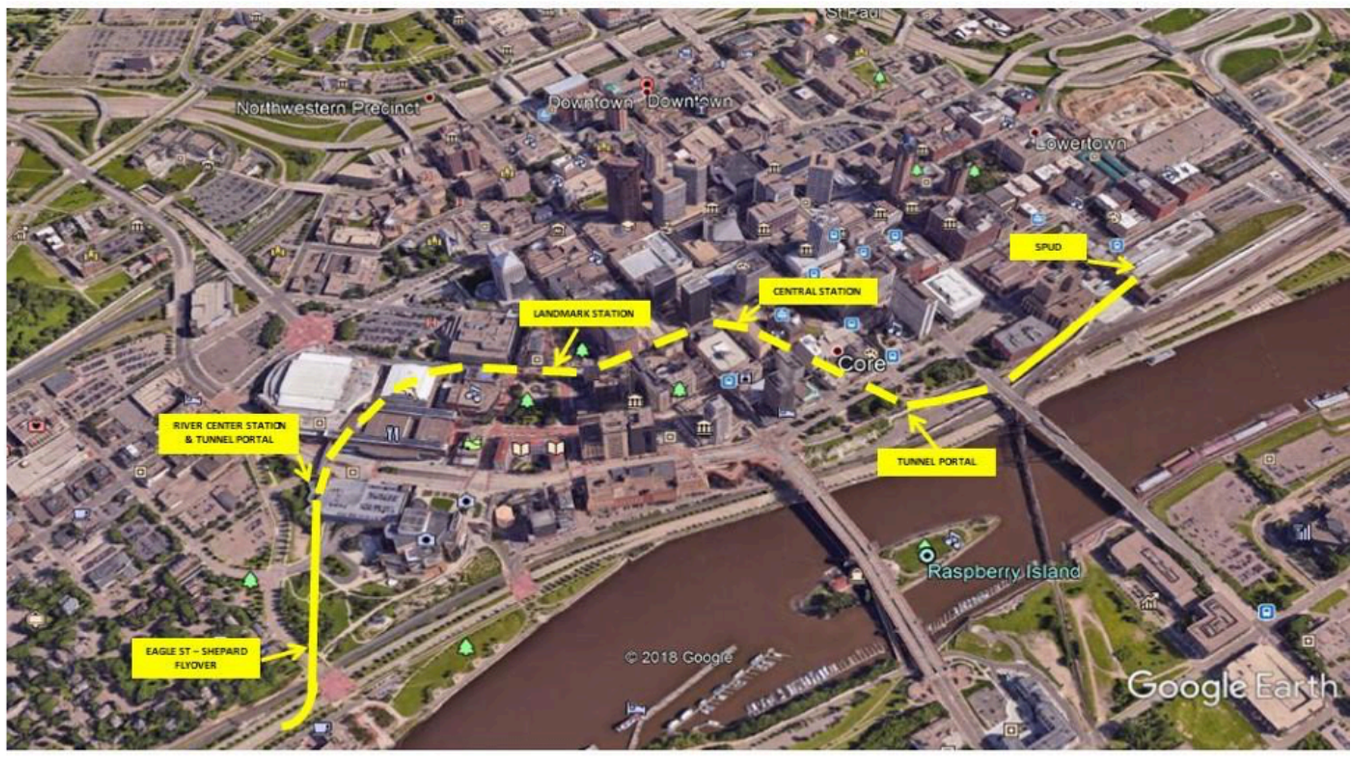
There is currently much activity regarding establishment of separated bicycle- only lanes, similar to the Capital Bikeway development on Jackson Street. These will further constrict lanes for auto traffic in the downtown area. Major developments such as the River Front project, as well as projected population growth, will place additional stress on downtown streets.

All of these factors should be considered in a comprehensive downtown traffic strategic plan and underline the importance of avoiding rail transit on Downtown streets.

A Better Way to Serve Downtown St. Paul

It is important that rail transit in Downtown St. Paul pass through the Downtown area, and then terminate at the St. Paul Union Depot. But, downtown St. Paul streets are not conducive to rail transit. The solution is to construct a short tunnel under a portion of Downtown as shown here:

Proposed Downtown St Paul Riverview Corridor subway



The geology under Downtown, in particular the St Peter Sandstone, is particularly conducive to tunneling. It is suggested that a tunnel through this formation begin with an open air station adjacent to the Xcel and then pass below the Xcel to an underground station at Landmark Center and a second underground station below the existing Central Station. The tunnel would end at the river bluff below Kellogg Blvd and Minnesota Street, where it would follow the existing CP rail alignment to the St. Paul Union Depot.

Conclusion: Streetcar in the Riverview Corridor Seals the Transit-Poor Fate of the East Metro

There will be no do-overs. Once $2+ billion is spent on the streetcar, the East Metro will have to live with this for generations. The CP-Spur will be gone – the sale of only one parcel along the spur can destroy the opportunity for a dedicated guideway and it will be far less likely that even a trail for bikes or pedestrians can be built. The streetcar will never have the capacity, scalability or the reliability that is required in this Corridor. It will be far less likely that LRT is built beyond St. Paul if passengers always have to get off, find the streetcar and wonder when they would reach the airport.

Transit riders in the East Metro will be condemned to a transit-poor future with limited access to the West Metro's LRT system. Communities in the East Metro will be condemned to sub-standard growth as businesses and investors shift the preponderance of investment to the west metro. Without this stimulant, East Metro communities will have a lower tax base and fewer resources to invest in schools, roads, services and public utilities.

At the present time there are no efforts underway at the municipal, county or metropolitan levels to plan, fund and build an LRT system in the East Metro. Even if planning started today, it would be more than thirty years before the East Metro had a system comparable to the West Metro.

Inaction and misguided action (such as the streetcar) have condemned the East Metro to this transit-poor fate, but it is not too late for the East Metro to reject the streetcar and demand that the Metropolitan Council step forward and lead a determined program that creates a transit-rich future for the East Metro, with LRT as the backbone of the regional transit system.

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About James Schoettler

Jim Schoettler is a resident of the Highland area of Saint Paul. He is a graduate of the University of Minnesota school of Architecture with a Bachelor degree in Environmental Design and an MBA from the Carlson School at UofM. He started his career as a planner at the Met Council. Recently retired from Wells Fargo, he is active in civic affairs and is a founding member of Citizen Advocates for Regional Transit (C-A-R-T) www.citizensforregionaltransit.org

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