

Berkeleyans for Better Transportation Options

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“Rapid Bus Plus” – Our Proposed Alternative to Bus Rapid Transit

This document outlines the alternative we propose that AC Transit study in its final Bus Rapid Transit (BRT) environmental impact study (EIS). We further propose that City decisionmakers and staff examine this package of validated transit best practices, and consider declaring it the City’s “locally preferred alternative.”

Vision

One city – thinking regionally – persuades one transit provider to *act* regionally. Bay Area public transportation emerges from its 19th-century structure of fragmented, often competing, operators. We achieve tangible progress toward the green, 21st-century, world-class transit system that our region needs to achieve sustainable prosperity.

Goals

(1) Community needs, articulated through civic leadership, drive AC Transit’s planning – the very model that AC Transit’s Board of Directors endorses. Cities reject passively ratifying a pre-packaged “solution” to nonexistent problems. Instead, Berkeley – with other host cities – outlines the transit enhancements that it genuinely requires, and persuades AC Transit to implement them.

(2) On the BART/Telegraph Ave. corridor, AC Transit redesigns its Bus Rapid Transit (BRT) proposal to yield an optimal set of improvements – providing substantial community benefits with no detriments. The model is “Fix it first”: complement, do not duplicate, BART.

Remove the dedicated-lanes component, which generates the real detriments. Avoid all earth-moving, thereby avoiding degradations in bus service (and in overall road performance) during extended construction. Permanently preserve robust local-bus service. Bank the savings to extend incremental, but significant, enhancements to most or all of AC Transit’s system.

(3) The City of Berkeley declares a “Rapid Bus Plus” package, along these lines, to be its “locally preferred alternative” for AC Transit planning purposes: enhanced Rapid Bus on the BART/Telegraph Ave./downtown corridor, no dedicated lanes, and incremental enhancements extended across AC Transit’s broader service network.

“Rapid Bus Plus” Enhancements: The Core Package

We regard the following package of improvements as essential to the optimal enhanced-bus alternative we call “Rapid Bus Plus.” Singly or in combination, these could offer greater benefits than AC Transit’s 2007-08 BRT proposals, with fewer or no detriments. These enhancements would (a) aid Berkeley’s transportation-management efforts, (b) provide new mobility options to underserved populations, (c) help alleviate congestion chokepoints, and (d) help reduce the East Bay’s climate and broader environmental impacts. Everyone wins:

- **Low-tech proof-of-payment (POP) implementation:** Passengers would pre-purchase blank tickets from merchants, then self-cancel them onboard the buses. No “stations,” no time-stamping before boarding, and no unintended “transit-village” impacts on residential neighborhoods. This is how Europe’s world-class transit systems generally work.

Proof-of-payment (POP) implementation *fleetwide*: This broader option would speed up systemwide boarding, would improve bus speeds and reliability across AC Transit's whole network, and would make transit a more attractive alternative on all corridors.

POP does *not* require the expensive, and trouble-prone, automatic vending machines that AC Transit proposes to deploy only on the limited BART corridor. POP certainly does not require "stations." In fact, the pioneering BRT system – in Curitiba, Brazil – incorporated stations precisely because it omitted POP. (This Third World city's elite feared subsidizing fare-beaters, so planners designed enclosed stations with subway-style turnstiles.)

- **Signal-priority expansion:** On AC Transit's Rapid Bus lines (1R and 72R), transponders onboard the buses already hold green lights so that buses can proceed faster. Expanding this inexpensive, low-impact technology across AC Transit's fleet would incrementally raise buses' speeds, reliability, and appeal to potential new transit riders.
- **Real-time vehicle arrival information:** Prioritize trustworthy vehicle-tracking, and inexpensive delivery media, over expensive fixed displays. Riders could phone a dedicated phone number posted at bus stops (as in Toronto), or use modern mobile phones to display forthcoming arrivals in a Web browser (as in S.F. Muni's collaboration with Nextbus.com).
- **Fuel-efficient buses:** Within transit operations *alone*, match or exceed AC Transit's BRT target of saving a net 690 gallons of fuel per day on the overall BART corridor. Aggressively shift future fleet purchases to the best available diesel-electric hybrids (Orion VII's). These are up to 35% more fuel-efficient than AC Transit's conventional-diesel Van Hools. Every extra passenger-mile per gallon means fewer emissions of greenhouse gases and conventional pollutants per passenger-mile. These hybrids also reduce particulate emissions by as much as 90% compared to conventional diesels.

Orion low-floor hybrids also offer a more accessible ride than the controversial Van Hools – thanks to floor-mounted (not platform-mounted) seats, which better accommodate people with limited mobility. San Francisco has ordered at least 86 of these hybrids. New York City is deploying 1,000 of them. Toronto has deployed 150 and ordered another 490 – enough to soon replace nearly half of its conventional-diesel fleet.

Evaluate the results against a realistic model of BRT with dedicated lanes: a model that incorporates the fuel-efficiency impacts of forcing non-bus traffic to travel at less-efficient speeds, in the artificial congestion generated by sharing half as many lanes.

- **Flexible-sized bus fleet:** Purchase, and intelligently schedule, smaller buses (e.g., 30-foot vehicles). These could efficiently sustain high service frequency during off-peak and night hours. Among full-size buses, even the best hybrids get barely 4-1/2 miles per gallon of diesel. (With fewer than 6-8 riders, those riders could save energy by each driving alone!) Transit providers running such large buses, even when nearly empty, are worsening their environmental footprint while failing to protect their operating budgets against steady rises in fuel prices. Vehicles should be sized to match their measured ridership.
- **Preservation of local-bus service:** The whole purpose of enhancing bus speed and reliability is to attract net new transit riders. So AC Transit should not alienate loyal riders who now depend on workhorse local routes. Here again, a flexible-sized fleet could help efficiently maintain service on low-ridership routes and off-peak hours.
- **Cleaner buses:** Within transit operations *alone*, match or exceed AC Transit's BRT target of saving a net 6 tons of carbon emissions per day on the overall BART corridor. Aggressively purchase buses that run on cleaner, lower-carbon fuels: biodiesel, natural gas, or hydrogen fuel cells. (For example, Toronto's entire bus fleet now runs on a biodiesel mix. Much of Los Angeles' MTA system already runs on clean natural gas.)

Again, evaluate the results against a realistic model of BRT with dedicated lanes: a model that incorporates the greenhouse-gas (and broader air-pollution) impacts of forcing non-bus traffic to travel at less-efficient speeds by sharing half as many lanes.

- **Discounted advance purchases:** To build ridership, offer meaningful discounts on multi-ticket books, and on multi-day or monthly passes. (On Canadian transit systems, a 30% discount has long been standard on advance purchases of a 10- or 5-ride strip of tickets.)
- **Dramatically reduced transit fares:** Funding options here include a community-subsidized fare-free zone; a policy of requiring large employers to offer subsidized transit passes instead of subsidized parking; or publicly funded, pre-paid transit passes for the general public, honored by both BART and AC Transit (the perennially-discussed, but never-implemented, “Eco Pass”).

Further Enhancements Worthy of Study

The following enhancements would be more demanding, and perhaps more visionary. We regard them not as essential ingredients in an alternative package, but as still worthy of study:

- **Survey current and potential riders’ needs:** At least as thoroughly as our advocacy group has already done, using our skeleton staff. Topics could include origin/destination patterns that could reroute buses to minimize transfers; preferred distance between stops; perceived bus performance and safety; and safety and information needs at bus stops. AC Transit has spent decades basically placing new vehicles and technology onto historic streetcar routes, without comprehensively examining current or prospective riders' evolving needs. Displays onboard buses, and at stops, could prominently identify electronic means by which riders could provide feedback. Comments could be publicly available at that site.
- **Optimize transfers, and speed up milk runs:** Improve AC Transit reliability *systemwide*. The BART/Telegraph Ave. corridor is the *last* place to worry about transit reliability. Commuters who need speed and predictable arrival times already have the BART option here. Also, as a principal trunk route, this corridor already offers commuters a flood of relatively frequent service. (In fact, AC Transit has ruled out dedicated bus lanes as impractical for downtown Oakland, because so many frequently arriving buses would interfere with each other!) Improvements should instead focus on underserved corridors, and on quick and reliable transfers to/from principal corridors.
- **Re-examine existing routes and runs for current relevance:** On a given route, where certain daily trips function as de facto school buses or corporate shuttles – between a pair of predictable termini – make those trips limited-stop express runs.
- **Perform origin/destination studies to re-target dedicated bus lanes** to corridors that (a) are underserved by BART, (b) are major points of origin for long car trips that have high environmental or congestion impacts, and (c) show very strong community support for dedicated lanes. Objectively prioritize routes for this expensive and invasive treatment. Discount the resulting rankings by considering each route’s capacity needs, along with the availability of parallel capacity. Likely candidates to emerge might include the MacArthur Blvd./I-580 corridor; and the Iron Horse Trail right-of-way between the Walnut Creek and Dublin BART stations (a BART gap where much Caldecott Tunnel traffic originates).
- **Coordinate inter-agency route planning, and implement free transfers:** Urge regional transit providers to merge, or to start simulating the single transit agency that virtually every other metropolitan area enjoys. At a minimum, this means coordinated route planning, plus free transfers among providers’ vehicles. (Virtually every other major urban area long ago abolished arbitrary double fares for riders who need to transfer between different vehicle types.) It does *not* mean MTC’s long-delayed TransLink fare-payment system, which is over-engineered, over-budget, and essentially an enabler for the current fragmented network.
- **Subsidize free shopper shuttles** to facilitate shopping locally without driving. Where employers already provide free shuttles between their worksites and transit hubs, consider cost-sharing agreements that would open these shuttles to free local patronage (for example, at non-commute hours, or in the “empty” direction).

Anticipated Counterarguments

(1) Is Rapid Bus Plus “untested” or “poorly defined”?

- To the contrary: It is common, well-defined, and validated. Only the catchy name was invented in Berkeley. Its basic components have a longer history, and wider use, than those of BRT (whose own definition varies greatly from city to city).

San Francisco’s venerable N-Judah streetcar line, for decades a backbone of S.F. Muni’s commuter network, is essentially Rapid Bus Plus on rails. It runs in a shared (not exclusive) lane, and uses simple proof-of-payment throughout much of the Sunset district.

Los Angeles’ MTA is adding 8 new Rapid Bus routes this year, for a total of 21. Los Angeles has declined to replicate its single BRT route, the Orange Line. The Orange Line displaced no mixed-flow lanes, and is popular, but has proven trouble-prone in operation.

(2) Do fewer mixed-flow lanes (as in AC Transit’s dedicated-lanes proposal) make for safer streets?

- Apparently not on Berkeley’s Marin Ave., where the removal of two lanes was soon followed by the street’s first two pedestrian fatalities in several years.
- Presumptively not where – as AC Transit proposes – pedestrians would have to cross those lanes just to board or disembark from buses.
- Even if the answer were yes, that would still not be a reason to “shrink” every arterial street into sclerosis. Telegraph Ave. needs its current capacity – it is a prime commercial and commuter route, with no parallel alternatives offering comparable capacity or reach. A less-crucial arterial, in an orderly and free-flowing grid, could better surrender half its capacity.
- AC Transit’s arguments about pedestrian and bicycle safety are, in any case, recent additions to its BRT pitch. They diverge from the core issues – transit service levels, and overall environmental and economic impacts. These arguments appear carefully targeted to Berkeley’s Transportation Commission, and to one or two Berkeley advocacy groups whose memberships interlock with that commission’s membership. Let us focus on optimizing community impacts, and not reward venue-shopping.

Summary Issues

Virtually everyone in Berkeley favors a strong and affordable public-transit system. Virtually everyone seeks the contributions this can make to mobility, social equity, congestion reduction, economic health, and environmental quality.

But who defines “strong”? Should one transit operator be encouraged to take the most expedient route to a set of earmarked subsidies, at the expense of community needs or overall system performance?

Is it effective or ethical to basically squeeze people out of their cars by creating artificial congestion? Or would the community detriments (and likely backlash) far outweigh the negligible environmental gains identified in AC Transit’s April 2007 draft EIS?

Instead, should we not win voluntary converts to transit, by creating attractive and meaningful new transit options that make no one worse off? Should we not aggressively pursue the maximum environmental and economic benefits, per scarce transit dollar?

Finally, let us recognize that AC Transit is subject to a fragile funding base and to perverse incentives. Given the evaporation of federal operating subsidies, AC Transit has every incentive to seek capital subsidies as a means of generating overhead for operating expenses.

But do we want to encourage a capital program that threatens substantial detriments by needlessly and permanently disrupting a vital arterial and its adjoining neighborhoods? Or should the City instead guide AC Transit toward a capital program that emphasizes environmentally cleaner and more inviting vehicles, with virtually no detriments?

Thank you for considering these overall issues and the specific alternatives we offer here.

/s (22 signers):

George Beier, Carol Berkenkotter, Peter Berkenkotter, Priscilla Birge, Jim Bullock, Vincent Casalaina, Shirley Dean, Judith Epstein, Gale Garcia, Barbara Gilbert, Sharon Hudson, Martha Jones, Bruce Kaplan, Michael Katz, Dean Metzger, Merrilie Mitchell, George Oram, Mary Oram, Joseph Stubbs, Scott Tolmie, Paul Vojta, Bruce Wicinas

and other members of Berkeleyans for Better Transportation Options
and Advocates for Voter-Approved Transit

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