

Transit Recovery Infrastructure: A Quick Build Framework

Background

There is growing interest nationally to quickly designate slow streets and build bicycle lanes, pedestrian improvements, and even outdoor dining areas as a response to COVID-19 – to provide space for social distancing and better safety and comfort for the booming number of cyclists. In some larger cities, transit improvements have also been a key part of the response. For example, the New York MTA is proposing 60 miles of bus lanes as part of their COVID response.. Although there is rampant speculation on what the post-COVID public transit world will look like, early indications are that traffic conditions will worsen before transit ridership bounces back and that steps should be taken now to protect transit travel time. The quick-build concept is intended to help the District meet this immediate challenge and reach long-term goals.

To support public transit, mini projects like red bus lanes, temporary features, painted elements, traffic signal modifications and other simple-to-build components could be employed throughout the District’s service area. The ability to build transit priority infrastructure on an expedited basis is dependent on securing the cooperation and partnership of local jurisdictions and identifying funding mechanisms.

Strategic Context

There are three general categories of quick-build projects: true piloting of new ideas, projects that are a first phase of a larger project and projects initially designed as temporary that are made permanent later.

1. Pilot for New Ideas

The project is an opportunity to test ideas that are controversial such as parking removal, but may not result in a permanent project. There would need to be an understanding among stakeholders that the project may be modified or removed if it does not perform sufficiently well. Temporary installations may not qualify for conventional funding sources.

2. First Phase of a Long-Term Project

A quick installation of a segment of a larger or long-term project could help to foster acceptance and speed its implementation. For example, painted bus lanes might be a precursor to a full BRT project in the future. These types of projects may be fundable through existing programs or projects.

3. Temporary First Phase with Improvements Later Made Permanent

Temporary projects using paint (e.g. single coat), for example, could be made permanent by upgrading to thermoplastic or tinted concrete. Similarly, temporary boarding islands could be replaced with permanent concrete islands. These types of projects may be fundable through existing programs or projects but would require mutual recognition that some of the early investments may be lost once a permanent project is built.

Practices to Ease Implementation & Institutional Challenges

1. The more cities involved in a project; the more difficult implementation becomes. Projects should minimize the number of participating cities (1 ideal, 2 possible, 3 DOA).
2. No state highways to be considered as Caltrans participation could prolong the implementation of quick build strategies.
3. The project must be amenable to simplified purchasing agreements such as on-call architecture and engineering or delegating purchasing by outside agencies. The purchasing aspect needs to be managed as rigorously as the project.
4. Performance measures for corridor projects are often complicated and designed to meet requirements of funding agencies, regulators and local cities. The current regulatory environment is generally too onerous for smaller-scale quick-build projects. Performance measures should be easy to collect and analyze. Complicated measures such as ridership or greenhouse gas reduction should be avoided for small-scale projects. Performance measures should be limited to delay reduction or speed improvement. Such simplification and streamlining would need to be agreed to by the funding and regulatory agencies.
5. Currently there are no dedicated funding sources for quick-build projects. Funding would have to be identified and secured for individual projects or the large-scale roll out or the creation of an ongoing program. For earmarked corridor funds, it may be possible to use money for early implementation of simple elements. Due to their temporary or speculative nature, pilot projects would not be eligible for most funding sources.
6. There may be opportunities to link transit projects with pedestrian or bicycle projects proposed by cities.
7. Cities often demand extra features be added to transit projects. This adds unpredictability to project budget development and risk to the overall project. Local jurisdictions would need to agree in advance on the project definition and sign a funding agreement with the District.
8. Take advantage of proposed expansion of CEQA exemptions to include public transit priority infrastructure under SB 288. To take advantage of the expanded exemptions, a project must be in the public right-of-way and located in an urbanized area.

Projects that propose expansion of automobile capacity would not be covered in this reform bill. In addition, the District or local jurisdiction would not be exempt from holding public meetings on the proposal.

Project Types

There are two general categories of projects: *hot spots* and *corridors*. Hot spots are discreet locations or block segments that data shows as being affected by traffic congestion. Corridors correspond to parts of bus routes where larger scale, although not necessarily more expensive, investments would improve operating speed and reliability.

Hot Spot Examples

1. 7th & Broadway Left Turn Transit Signal
2. Piedmont/Broadway to 40th/Broadway Signal Coordination
3. Fruitvale & Foothill

Corridor Examples

1. 73rd Avenue Red Lanes and Boarding Islands
2. MacArthur/40th Street Red Lanes

Below is a table of possible projects being developed by Planning staff.

Location	Lines	Improvements
MLK in Berkeley	12	Boarding islands or sidewalk extensions especially at high boarding stops, such as Berkeley High
MLK in Oakland	18	Side running transit lanes between 47th and Grand Ave (Oakland repaving 40 th to city limit, consider south of Grand)
Solano	18	Boarding islands or sidewalk extensions
San Pablo @ Solano, NB	18 & 72	Move 18 Stop to Solano, and relocated 72 bus stops to far side
Adeline	F	Side running transit lanes
40th Street	57	Side running transit lanes between Adeline and MacArthur BART
MacArthur	57, NL	Side running transit lanes on one-way couplets. Use shorter term spot improvements from WSP's sketch
MacArthur	57, NL	Bus stop relocation/consolidation

Use Camden instead of 68th	57	Reroute Line 57 from 68th to Camden and add new bus stops.
Fruitvale	20, 21	Boarding islands or sidewalk extensions
Park St (Alameda)	20, 21	Boarding islands or sidewalk extensions
University @ MLK	51, 12, 52	Turn on a queue jump. Add new queue jump on NB MLK
University Ave	51, 12, 52	Side running transit lanes, queue jumps at key intersections, or boarding islands. The City is considering a sidewalk extension at the University/Grant St (WB) far side.
Gilman @San Pablo	12	Remove on-street parking on NB Gilman, far side
Foothill	40	Side running transit lanes on one-way couplets. Queue jump lanes. Bus stop relocation/consolidation
11th @ Lake Merritt Boulevard	BRT, 29, 33, 40	Paint the existing transit lane to red, add a queue jump signal at Lake Merritt Blvd, post signage
Lake Merritt Boulevard between Oak and E 18 th	BRT, 14, 29, 33, 40	In both directions, add red transit lanes, better coordinate signals to facilitate transit bus movements
Park Blvd	33	Transit lanes on lower part of Park Blvd (below I-580).
Mission Blvd	99	TSP in Hayward (applied for \$350K in grant), TSP in Union City is not covered in the grant application.
Decoto Road bet. Fremont and Mission	99	Queue jumps. Buses and bikes share a lane?
Robert H Miller Dr	72	Sidewalk and new bus stop installation so that 72 travels in a straight route
High schools and middle schools on Major and Trunk lines	General	Improve signage and designate areas for bus stops and pick up/drop off zones.
Telegraph Ave between Dwight and Bancroft	6	Side Running Transit Lanes; Current projects in pipeline for Telegraph include the City's Complete Streets Project and TPI3.
Cutting Blvd and San Pablo (El Cerrito ROW)	76	Queue Jump for left turning southbound buses going from San Pablo into the BART station; City of El Cerrito doing an intersection project that may eliminate the bus only lane so having a queue jump will be helpful
35 th & San Leandro	O,20,21,19,51A,62,54	Remove parking to aid turns on high traffic short, tight, segment. Potential delay affects all Fruitvale lines.
Sacramento Street	88, J	Boarding islands or sidewalk extensions for shared bus stops for local and Transbay.

Red Curb Extension (Linda/Piedmont Ave)	12	Linda near-side of Piedmont Ave, extend red-curb for ADA access and so bus can pull to curb
35 th and Delaware Stop Relocation	14	Relocate stop closer to MacArthur Blvd, existing stop in queue lane for freeway. Slows operations and is unsafe during AM Commute
Westlake Middle school Red-curb Extension	33, 611	Extend red curb for existing layover for Route 611. Currently unrestricted parking.
34 th and San Pablo	72, 72M	Relocate stop back to California Hotel. City installed bollards that slow bus operations and make it impossible to pull to curb
MacDonald Avenue	72M	Red transit lanes between San Pablo Avenue and Richmond BART
Fred Jackson Way	76, 376	Enhance bus stops in conjunction with housing development between Willard and Alamo
Rumrill Road	71, 376	Red transit lanes or queue jumps at Market, Brookside, Road 20 and other intersections
Market and 43 rd	88, F	Remove City Bollards that prevent F and 88 from pulling to curb
Signal timing project (corridor TBD)	TBD	Creating signal timing that favors buses and bicyclists. Either modern signal infrastructure or tightly spaced grid street system may work.
Pedestrian & bicycle video detection on Corridors with TSP	TBD	Proof of concept for how video detection may help improving transit operations where TSP system is already installed
Dumbarton Terrace Parking Removal	DB, DB1, U	Parked cars make it difficult for buses to complete a left turn from Ardenwood Blvd into Dumbarton Terrace. Remove 2-3 spaces. Need to determine ownership of street.

Staffing

A program of even a few quick-build, pilot and hot spot projects would likely require a dedicated staff member to manage the internal approvals, data analysis, grant application process, purchasing, project management and coordination with city staff.

Pursuing a small set of projects would be ideal and could garner early success. As an ongoing program, many small-scale projects would likely be more difficult to manage than a single medium-to-large project. Each small project may require its own outreach component and approvals and its own District project manager.

Parking removal would require the highest level of outreach and simple re-striping or minor traffic signal modification would require the least.

Evaluation, monitoring and making timely adjustments will also be critical to the success of quick build projects.

Resources

[UCLA ITS Tactical Transit Lanes Guide](#)

[UC Davis Transportation and Climate Blog – Open Streets: Quick Action vs. Community Buy-in](#)