

SPUR REPORT
TRANSPORTATION



A Regional Transit Coordinator for the Bay Area

Making our many transit systems work as one integrated regional network

DECEMBER 2020



This report is a component of the SPUR Regional Strategy, a vision for the future of the San Francisco Bay Area

spur.org/regionalstrategy

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This report was written by Laura Tolkoff and Jonathon Kass, with contributions from Joshua Brett, Arielle Fleisher and Nicholas Josefowitz.

Edited by Valerie Sinzdak
Designed by Shawn Hazen
Copyedited by Becky Ohlsen
Cover photo by Sergio Ruiz

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Executive Summary

The Bay Area has more than two dozen different public transit operators. The region's transportation plan allocates nearly two-thirds of all transportation funding to public transit, yet fewer than 5% of all trips are made by transit.¹ In many ways, having so many different transit systems makes it harder for riders to understand and use the services that are available to them.

The Bay Area's transit challenges are many: unreliable service; poor connections between modes and services; divergent maps, schedules and fares; uncoordinated capital investments that lead to both under-building and over-building; and fare policies that put transit out of reach for many. In recent months, as COVID-19 has drastically decreased ridership and revenue, the outlook for transit's future has become dire. Agencies are further saddled with a backlog of maintenance and repair needs and mounting pension obligations. The consequence is that agencies are facing a fiscal cliff that will reduce service in the near term and could force some to stop operating altogether.

In the face of growing transit difficulties, the region and its transit riders can ill-afford the additional burden of poor transit coordination. Transit coordination challenges are related to transit operations being fragmented across so many agencies – the result of 50 years of pushing and pulling between regional authority and local control in transportation planning (see Appendix A). For more than a decade, transit advocates have been pressing for a more seamless transit network as the region's population and economy grow and transit ridership, as a share of all trips, declines. But despite significant effort and spending, problems persist: Passengers are forced to transfer simply because they've hit the edge of a transit district; maps, schedules and fares remain uncoordinated and confusing; and investments continue to be driven by local needs and pet projects rather than regional network priorities.

Transit should be coordinated at the regional scale because travel is fundamentally regional. Many people live and work in different jurisdictions, and they cross county and transit district boundaries on a daily basis. Regionally coordinated transit does not diminish local service — it ensures that local services both support and benefit from playing a role in regional trips. Transit coordination in other regions has yielded better transit options for existing customers, increased fare revenues for transit operators and increased overall growth in transit mode share.²

Coordinating the regional transit network is complex, but that's not the reason it hasn't been done. The real reason is that it's not anyone's responsibility. This report recommends establishing a regional transit coordinator, an institution empowered to coordinate transit operations across a cohesive network. With appropriate powers, such an agency could do more to reverse the current fragmentation and create a seamless transit network than each operator could achieve by acting alone.

Building on SPUR's previous work to create a seamless transit network, this report supports the SPUR Regional Strategy, a 50-year vision for how the Bay Area of 2070 can be a more equitable, sustainable and prosperous region. It is intended to spark debate and accelerate progress to solve long-standing problems.

In this report, we distill relevant lessons from five case studies from around the world, all places that have developed the role of transit coordinator. These precedents lead us to propose the following recommendations.

¹ The Metropolitan Transportation Commission's most comprehensive survey, BATS2000, shows about 6% weekday transit mode share and about 2% weekend transit mode share in the year 2000. This equates to a total transit mode share of about 5%. National Household Travel Survey trends to 2017 suggest mode share has declined since 2000, so an updated figure would be significantly less than 5%.

² Michelle DeRobertis, Christopher E. Ferrell, Richard W. Lee, and John M. Eells. "Characteristics of Effective Metropolitan Areawide Public Transit: A Comparison of European, Canadian, and Australian Case Studies" *Mineta Transportation Institute Publications* (2020). doi:<https://doi.org/10.31979/mti.2020.2001>

RECOMMENDATION 1

Prioritize early actions that increase transit use and ensure that new transit investments deliver the best public value.

We suggest five actions to make the transit experience seamless to users, ensure that new service translates to improved service and support sustainable growth.

Action 1: Create a service-based vision for the transit network.

- Develop a strategic plan for service performance and capital investments.
- Prioritize capital investments.
- Establish operational standards and goals for seamless connections.
- Designate a hierarchy of hub stations within the transit network.
- Establish standards for the amount and type of growth around each hub.
- Require seamless connections between operators as part of regional transit capital investments.

Action 2: Create an integrated system of managed lanes and an express bus network.

- Develop a regional express bus network plan.
- Coordinate regional plans for managed lanes and express buses.
- Ensure that freeway infrastructure rehabilitation and reconstruction take into account and prioritizes express bus infrastructure needs.
- Convene express lane operators to support collaboration.
- Establish a system for selecting express bus operators for new services.
- Be the primary point of contact and coordination for Caltrans through corridor managers.
- Establish regional protocols for private transit operators to use express lanes.

Action 3: Create a simple fare structure and fare integration fund.

- Set coordinated fares.
- Collect and redistribute fares from fare integration fund through revenue-sharing agreements among operators.
- Raise and allocate funds for fare integration.

Action 4: Integrate customer information and wayfinding.

- Provide clear, consistent, up-to-date and ample transit information across the region.
- Develop a unified regional transit network brand that identifies all regional services and feeder services as part of the region's transit network.

Action 5: Bring down the time and cost of delivering transit projects.

- Create a standard framework for conducting transit business cases and rigorously evaluate a project's business case before making financial or political commitments to it.
- Establish a "stage gate" process with phases and periodic decision points to determine a project's readiness to advance to the next phase and receive more funding.

While these actions focus on policy outcomes, the next two recommendations focus on institutional changes, some of which may be necessary to best deliver the outcomes discussed in Recommendation 1.

**RECOMMENDATION 2****Create a transit coordinator for the region.**

The Bay Area is not the only region with many different transit operators, but it does stand apart because it has not created an institution empowered to coordinate transit operations into a cohesive network. As the regional transportation planning agency, the Metropolitan Transportation Commission (MTC) is a candidate for the role and is well positioned to assume responsibility for the coordination of fares, schedules and wayfinding. In Chapter 3 of this report, we explore this possibility as well as other options.

RECOMMENDATION 3**Pursue institutional reforms to align the role of transit agencies and local jurisdictions with transit coordinator functions.**

Promoting MTC into the role of transit coordinator for the Bay Area, or creating a new or combined institution to serve this function, also requires rethinking the role of the region's 27 transit agencies, nine county transportation agencies, nine counties and 101 cities in the decisions that affect public transit. For each of the five actions listed in Recommendation 1 (above), we outline the success factors, authorities and tools required to advance a regional focus and meaningful coordination.

Now is not the time to be constrained by historic institutional roles. Establishing a regional transit coordinator for the Bay Area with meaningful authority to implement coordination strategies can significantly improve transit access, increase transit's market share and make better planning decisions and public investments for the region. The challenges at hand demand a regional response with the clear authority and responsibility to create a well-integrated regional transit network.

Chapter 1

Fragmentation and Its Discontents

The fragmentation that the transit system faces today is the direct result of the Bay Area's approach to setting urban policy, which has generally favored local control over regional authority. Policy areas such as land use, taxation and transportation investment are influenced heavily by suburban growth and auto use, which have dominated the region's geography for the past 30 years. Since the 1950s, regional leaders have made important attempts to address transit fragmentation and improve connections between transportation and land use. Sometimes these efforts were nearly transformative; for example, in 1992, a bill to combine the Metropolitan Transportation Commission (MTC), the Association of Bay Area Governments (ABAG) and the Bay Area Air Quality Management District (in order to implement what was known as the Bay Vision 2020 recommendation) came within five votes of passing in the California Legislature. Yet every push toward regionalism has been matched with a pull toward greater local control. (For a detailed description of how this dynamic has played out, see Appendix A.) At times, the Bay Area has come close to achieving a more integrated transit system, but many goals have yet to be achieved.

Despite the fact that the region has 27 transit operators today, SPUR believes the Bay Area can indeed create a seamless transit network that functions as one rational, easy-to-use system. When that happens, the Bay Area will be a place where it's easy to get around on a frequent, reliable, equitable and connected public transit network that provides abundant access to and within the region and all it has to offer.

To get there, the region needs to achieve:

- Sufficient transit capacity in the urban core
- Fast and frequent service for regional and local trips
- Convenient and intuitive intercity and intermodal connections
- Safe and expansive networks for bicycling and walking
- Growth that supports higher levels of transit, and vice versa
- Fares that are affordable and equitable and encourage people to use transit
- Maps, wayfinding and trip planning tools that make transit an easy choice
- Governance that supports regional focus, funding and coordination

MTC and transit agencies have taken incremental steps to achieve these goals. However, progress has been slow, and transit's share of trips has continued to drop. To resurrect the region's transit system and achieve its other policy goals, it's time for a new strategy. This report recommends that the Bay Area establish a single, accountable authority to coordinate the region's many transit systems as one network and accelerate progress toward these ends.

There are five key reasons why this can't wait:

1. Too few people are actually able to use transit. With less than 5% of all trips being taken by public transit, it's clear that few people have high-quality access to the region's jobs, health-care centers, schools and other destinations by transit. Not only are few places located close to transit, but transit service often delivers slow and inconsistent travel times and poor connections, resulting in service that is too slow and risky for people to rely on it.

2. We are failing to reduce our greenhouse gas emissions. Plan Bay Area, the region's long-range plan for sustainable growth, sets targets for reducing greenhouse gas emissions and car use. But reaching the goals in the plan will not be possible with our existing transit services and without significantly shifting how people travel.³ Prior to the pandemic, transit ridership was declining,⁴ vehicle miles traveled were increasing,⁵ greenhouse gas emissions due to transportation were flat⁶ and transit costs were rising without producing better performance. If people return to their jobs during or after the COVID-19 pandemic but switch to driving alone due to social distancing concerns, congestion, pollution and greenhouse gas emissions will increase.

3. The current governance system puts modes and operators in competition with each other, with serious consequences for equity, access and the financial stability of the network. Passing local ballot initiatives that fund transportation typically requires delivering local priorities. Unfortunately, these local priorities are often at odds with the broader goal of furthering regional mobility. This is further exacerbated by having a limited-purpose regional transportation agency (MTC) whose job is to prioritize investments and distribute funding, not to identify and propose the most strategic investments.

Poor fare coordination is another area that generates competition between transit operators and creates equity challenges for riders. Each transit agency sets its own fare policy, often leaving buses as the low-cost option⁷ and trains as the high-cost option and perpetuating racial and economic divides. (The ways that the current network entrenches inequities are detailed in greater depth in the sidebar "Without Regional Coordination, Inequities Persist" on page 10.) And in a region with a large proportion of low-density development and dispersed growth, adding transit services without a centralized network planning function is likely to reduce overall efficiency and increase competition for riders.^{8,9} Inadequate attention has been paid to transit hubs as tools to improve regional mobility. Without a transit coordinator focused on network impacts, new transit service does not always translate to improved service.

3 MTC's *Plan Bay Area 2050 Draft Blueprint* struggled to meet the state's greenhouse gas emissions reduction target, falling 7% short with all of its initial transit and active modes strategies. The plan eventually resorted to strategies that did not rely on additional transit mode shift, such as reducing speed limits on freeways and arterials and a 60% remote-work mandate for certain large businesses.

4 Since 2015, transit commute mode share has been flat at around 12% (see <https://www.vitalsigns.mtc.ca.gov/commute-mode-choice>), but off-peak transit mode share has been declining, particularly for the highest-ridership agencies such as BART and SFMTA.

5 MTC, "Daily Miles Traveled," *Vital Signs*, September 2017, <https://www.vitalsigns.mtc.ca.gov/daily-miles-traveled#chart-1>

6 MTC, "Greenhouse Gas Emissions," *Vital Signs*, September 2017, <https://www.vitalsigns.mtc.ca.gov/greenhouse-gas-emissions>

7 Sometimes bus standard fares are not cheaper – for example, a Muni vs. BART trip within San Francisco. However, once monthly passes or youth/low-income discounts are taken into account, the bus is the only affordable option for regular transit users.

8 Paul Mees, *Transport for Suburbia: Beyond the Automobile Age*, Earthscan Publishing, 2010, p. 153.

9 One such example of this in the Bay Area is the extension of BART from San Jose's Diridon Station to Santa Clara, which duplicates existing Caltrain service in a low-demand area, creating greater competition for riders.

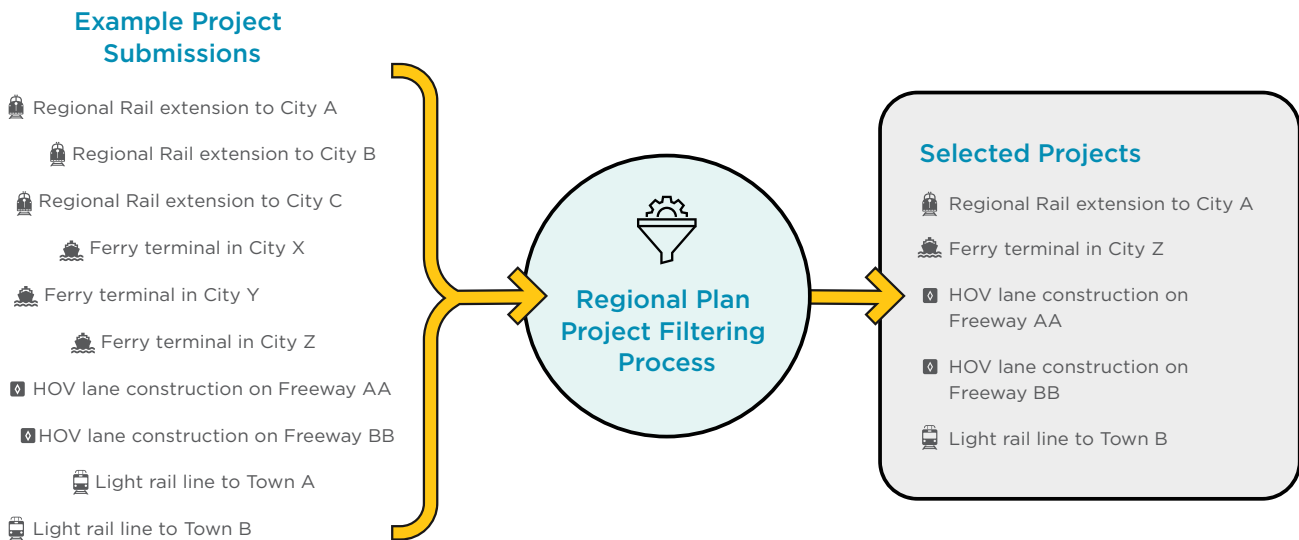
FIGURE 1
Allowing the Plan to Drive the Projects

Historically, MTC has selected transit projects from among lists submitted by local transit agencies and counties. This pits localities

against each other and creates winners and losers. A regional planning process that identifies the highest-priority transit needs for the region would direct more investment toward broader system performance improvements that benefit everyone.

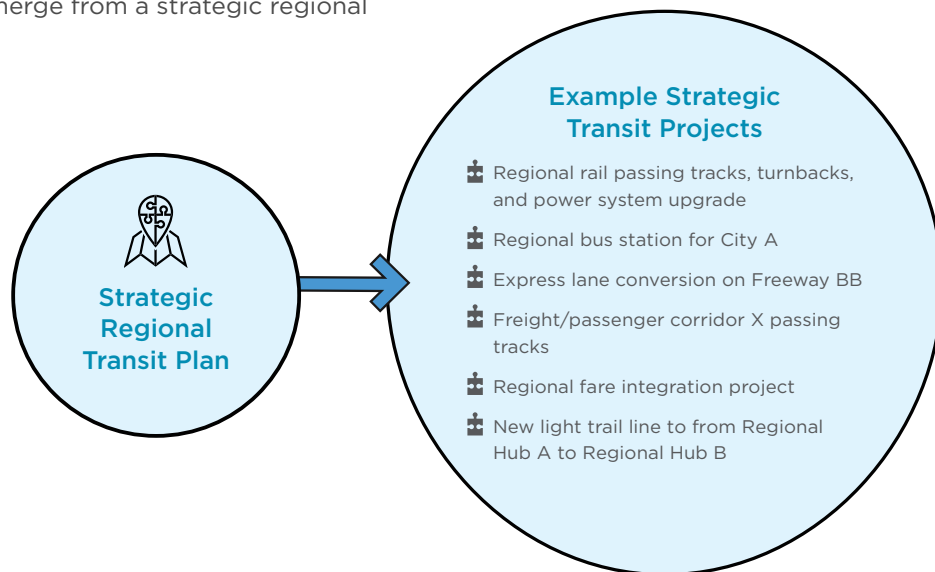
CURRENT PROCESS:

Local transit proposals are filtered through regional planning process



IDEAL PROCESS:

Priority projects emerge from a strategic regional transit plan



4. Transit operators are running out of money and facing an existential crisis. The Bay Area is known for having some of the highest transit operating and construction costs in the world. Since the COVID-19 pandemic, the financial outlook has become dire, as most operators have experienced drastic decreases in ridership and revenue. This has prompted many agencies to cut service drastically. And since there is no regional coordination system in place, these cuts have often been made with insufficient coordination between and among operators. This in turn has left gaps for customers. Agencies are facing a fiscal cliff that will not only result in less service in the near term, but could mean the very real possibility of ceasing to operate altogether. The region could not afford the inefficiency of poor regional transit coordination even before the pandemic. Now, in the face of operators' greatest financial challenges, regional coordination could be a matter of survival.

5. Capital planning is short-sighted, poorly managed and often counterproductive to regional goals. In the Bay Area, transit projects emerge from ideas generated by cities, counties and transit agencies, rather than from strategic assessments of what is most needed to enhance the regional network. Major new systems such as SMART and BART to Santa Clara replicate existing services such as Golden Gate Transit and Capital Corridor. Meanwhile, corridors with the highest demand, such as the Bay Bridge corridor, lack sufficient redundancy and investment. Making matters worse, projects have become so expensive that many cannot be built, despite the fact that they are critical to the functioning of the regional transit network.

Without Regional Coordination, Inequities Persist

In the Bay Area, over half of transit riders are low-income (while they make up only 26% of the population),¹⁰ and people of color account for 62% of transit trips.¹¹ The region's fragmented transit governance system only reinforces inequities for these riders.

Historically marginalized communities lack adequate access to basic amenities. Transportation access to jobs, schools, fresh food, open space and more are often severely limited in predominantly Black and Latinx neighborhoods, as well as in low-income neighborhoods.¹² In the Bay Area, more than two-thirds of all jobs are located near highway exits instead of near transit stops.¹³ This means that many job sites are simply out of reach by transit. Because public investments have favored cars for decades, those who cannot afford or are unable to operate one often have to forgo access to all kinds of opportunities and amenities.

Transit service is unreliable and slow, disproportionately impacting people who work in low-wage jobs. Low-wage workers often have less flexibility in their jobs¹⁴ and are more likely to be penalized for being late, making

10 MTC, *Plan Bay Area 2040 Equity Analysis Report*, July 2017, p. 5-5, http://2040.planbayarea.org/sites/default/files/2020-02/Equity_Report_PBA%202040%20_7-2017.pdf

11 MTC, *Regional Means-Based Transit Fare Pricing Study Project Overview Report: Draft Final*, March 2017, p. 4, <https://mtc.ca.gov/our-work/plans-projects/other-plans/means-based-fare-discount-program>

12 Gillian B. White, "Stranded: How America's Failing Public Transportation Increases Inequality," *The Atlantic*, May 16, 2015, <https://www.theatlantic.com/business/archive/2015/05/stranded-how-americas-failing-public-transportation-increases-inequality/393419/>

13 Laura Crescimano et al., *The Urban Future of Work*, SPUR, January 2012, https://www.spur.org/sites/default/files/publications_pdfs/SPUR_The_Urban_Future_of_Work.pdf

14 Catherine Brown, Ulrich Boser, and Perpetual Baffour, "Workin' 9 to 5," Center for American Progress, October 11, 2016, <https://www.americanprogress.org/issues/education-k-12/reports/2016/10/11/145084/workin-9-to-5-2/>

transit reliability and efficiency especially important. Low-wage workers in the Bay Area are disproportionately Black and Latinx.¹⁵

Current service patterns focus on white-collar commuters. Today's service levels and quality work well for people in "9-to-5" jobs but are not a good match for people who work different hours or who require more flexibility in their schedules – disproportionately women and people who are Black and Latinx.¹⁶ For example, many express bus routes today focus on commute service and terminate at major employment hubs, losing opportunities to efficiently serve many other regional transit customers.¹⁷ Regional service patterns that fit a wider array of destinations may not fit naturally into the portfolio of any existing transit agency, leaving a leadership void in planning and delivery.

Fare policies perpetuate a myth that trains are for high-wage earners and buses are for low-wage earners. The Bay Area lacks a coherent fare structure, and this exacerbates existing inequities in the region. It costs more to ride a train than it costs to ride a bus, which perpetuates the myth that buses are for low-wage earners and trains are for high-wage earners. In other places around the world with integrated fares, people choose what mode to use based on convenience and access, not cost.

Low-wage earners pay more for transit than high-wage earners. First, many low-wage riders need to transfer between routes, and in many cases between transit systems, to reach their destination, in part because low-wage earners tend to live far from job centers, in outlying areas where housing is less expensive. To transfer, riders need to pay multiple fares, driving up the cost of transit. Second, riders who can afford to purchase a monthly pass pay a lower cost per trip than people who need to pay per trip or with cash.¹⁸ This means that people who can afford the least often pay the most.

Wealthier, whiter and more auto-oriented communities have outsized power over transit investments. For decades, the federal government has been divesting from transportation; under the current regional plan, federal funding is expected to make up only about 10% of all transportation dollars in the Bay Area.¹⁹ To their credit, the voters of most Bay Area counties have repeatedly taxed themselves to try and make up the difference. But in order to win at the ballot, local spending initiatives have to dedicate a significant amount to auto-oriented projects or rail expansion, which tend to benefit wealthier and whiter populations. Further, the COVID-19 pandemic has shown that those who have the choice to work at home are more likely to be white and that essential workers are more likely to be Black, Latinx or Asian Pacific Islander.²⁰ Consequently, transit may become less and less relevant to the people who are expected to fund it, chipping away at the ability to provide transit to the people who will need it most in the future.

15 Silicon Valley Institute for Regional Studies, *Income Inequality in the San Francisco Bay Area*, June 2015, <https://jointventure.org/images/stories/pdf/income-inequality-2015-06.pdf>

16 Evelyn Blumenberg, "Social Equity and Urban Transportation," *The Geography of Urban Transportation*, eds. Genevieve Giuliano and Susan Hanson, 2017.

17 See LAVTA routes 20X and 580X at <https://www.wheelsbus.com/routes-and-schedules/>.

18 Arielle Fleisher, *Solving the Bay Area's Fare Policy Problem*, SPUR, 2018, page 23, <https://www.spur.org/publications/white-paper/2019-05-23/solving-bay-area-s-fare-policy-problem>

19 MTC and ABAG, *Plan Bay Area 2040: Investment Strategy Report*, July 2017, p. 10, http://2040.planbayarea.org/sites/default/files/2020-02/Investment%20Strategy_PBA2040_7-2017.pdf

20 Jamila Henderson, Eliza McCullough and Sarah Truehaft, "A Profile of Frontline Workers in the Bay Area," PolicyLink, May 13, 2020, <https://www.policylink.org/essential-workers>

Chapter 2

Models for Coordinating Transit

The lack of transit coordination in some regions has been described as a “market failure” requiring explicit intervention.²¹ This description highlights the fact that individual local transit agencies will not naturally coordinate with one another in a fashion that best responds to their customers’ needs. Unlike the Bay Area, other places around the world responded to suburban growth in the middle of the 20th century by establishing regional agencies to coordinate regional-scale services or expanding the role of the national or state governments to create a framework and tools to guide regional and local growth.

In our study of these places, we focused on five that helped their transit systems thrive in the age of the automobile: Zurich, Frankfurt, London, Vancouver and Toronto. While some of these city-regions have multiple transit providers, they all have a central regional entity that’s accountable for developing minimum standards for network performance and coordinating agencies to deliver services that meet those standards. This transit coordinator, sometimes referred to as a “network planner,” “network manager,” or “transport alliance,” plans and integrates projects, services, schedules, fares and customer information so that they add up to a more integrated and functional network. The Bay Area is missing this critical institutional role.

Transit Coordinators Around the World

Zurich

The Zürcher Verkehrsverbund (ZVV) was established in 1990 after two decades of suburban growth, two failed ballot measures to support transit, the rise of environmentalism and major new capital expansion plans along the national railway.²² ZVV is a small organization with a streamlined organizational structure. Most services are contracted out, including service operations, fare collection, passenger counts and customer surveys. In this way, ZVV focuses only on the major strategic planning efforts.

Frankfurt

Today, nearly all public transportation networks in Germany are coordinated through associations called “transport alliances,” or *Verkehrsverbunde*.²³ The Rhein-Main Verkehrsverbund²⁴ (RMV) was established in 1995 and organizes (but does not operate) all rail and bus transit in the Frankfurt Rhine-Main region and five neighboring states. Its core responsibilities include developing a strategic plan for the transit network, setting standards for transit service levels, setting and collecting fares and contracting with operators to provide services.

London

Formed from 1999 legislation that created a single mayor of London, Transport for London (TfL) is the largest of four departments under the mayor’s authority. While it has little direct control over transit service, TfL sets

21 Ralph Buehler, John Pucher and Oliver Dümmler, “Verkehrsverbund: The evolution and spread of fully integrated regional public transport in Germany, Austria, and Switzerland,” *International Journal of Sustainable Transportation*, 2018, <https://doi.org/10.1080/15568318.2018.1431821>

22 See note 7, p. 133.

23 See note 20.

24 *Verkehrsverbund* is singular, while *Verkehrsverbunde* is plural.

service frequency standards and access standards (e.g., all Londoners should be within 800 meters of a bus stop with service every 10 minutes). TfL's wayfinding program, Legible London, has become a global model for providing integrated customer information at all points in a passenger's journey. Overall, TfL is credited with bringing back public transit in London, reducing congestion and improving sustainable transportation.

Vancouver

Established in 1998, TransLink is a regional public transportation authority for the 21 municipalities of metropolitan Vancouver. In addition to serving as a regional coordinating agency, it also has primary responsibility for operating 92% of public transportation, overseeing major roads and bridges and administering a transportation demand management program. TransLink is widely regarded as *the* major success story for transit integration in North America. Year after year, it has been able to increase ridership, make needed investments and improve system performance.

Toronto

Metrolinx, an agency of the provincial government of Ontario, Canada, was created in 2006 to coordinate all modes of transportation for the Greater Toronto and Hamilton Area. Since 2009, when the Ontario government merged Metrolinx with GO Transit (which runs rail and buses), Metrolinx has been both an operator and the transit coordinator, providing strategic planning and integration efforts for nine other operators such as the Toronto Transit Commission (which runs buses, subways and light rail in Toronto).

Importantly, the five cases we studied do not share the same organizational model. Some transit coordinators, like the RMV in Frankfurt, are "pure" coordinators. They do not own or operate transit services but set a strategic vision for the transit network and then tender services (i.e., invite bids from public or private entities to deliver specified transit services). Others, like TransLink in Vancouver and Metrolinx in Toronto, simultaneously operate regional transit services and coordinate services within their territory. Because they have different organizational models, they also tend to have very different governance structures. This shows that transit coordinators are very adaptable; the central functions can be carried out under a variety of organizational and governance structures. We describe these structures in greater depth in Appendix B.

Commonalities of Successful Transit Coordinators

Though each of the models for regional transit coordination differ in their particulars, they share several commonalities that could be critical for the success of a regional transit coordinator in the Bay Area:

Origins. Regional transit coordinators came into existence for three primary reasons: to expand transit usage, combat suburban sprawl and auto use, and coordinate services in saturated and capacity-constrained locations. Importantly, they all share common, objective mandates such as increasing transit ridership, increasing the quality and quantity of service, enhancing the user experience, reducing transit subsidy and reducing pollution.

Authority. All of the organizations either have legal authority to take on regional transit coordination functions or derive the authority to perform coordination functions through the distribution of funding.

Functions. All of the organizations are responsible for setting the strategic direction for the transit network. All of them emphasize the customer-facing elements of transit use: fare policy and ticketing, schedules and customer information. Many also perform other functions, such as coordinating micro-mobility services, procuring transit vehicles or setting standards for infrastructure design, safety and cleanliness. However, the core functions focus on making the transit system more useful and more usable such that the differences across operators are unnoticeable to the rider.

Transit service delivery. Regardless of whether transit service is provided by publicly owned operators or private operators, the regional transit coordinator tenders these services according to service standards and performance standards for cost and quality established by the transit coordinator.

Relationships and interfaces with operators and cities. Public transit agencies play a key role in shaping policies and decisions. The owner of a public transit agency is typically a political jurisdiction, such as a city, province or the national government, which provides the funding for transit service. In most cases, a transit agency is not directly represented on the governing body of the transit coordinating entity. However, the transit agencies are often indirectly represented because the owner of the transit agency (e.g., a city or province) has a seat on the transit coordinator board. There are other ways in which operators and cities are involved in transit decisions, whether through quarterly forums or through direct consultation on issues such as schedule coordination.

Land use influence. Many, but not all, transit coordinators have some influence over land use. The extent of this influence varies agency by agency, whether it's in preparing the regional land use plan or growth strategy (RMV in Frankfurt), providing review of local plans or site designs to ensure they are consistent with transit-supportive land use goals (TfL in London) or purchasing and developing land near stations (Metrolinx in Toronto). Another way that transit coordinators can leverage their power to shape land use is by withholding funds or transit service if cities fail to comply with the regional growth strategy (as in Zurich).

These factors have shaped our recommendations for the functions and authorities of a Bay Area transit coordinator, as discussed in Chapters 3 and 4.

Chapter 3

Action Plan for a Seamless Transit Network

This chapter presents an action plan necessary for realizing the vision of a seamless transit network, including early action that will increase transit use and ensure that new transit investments deliver the best public value. In Chapter 4, we recommend that the Bay Area create an entity to coordinate regional transit and carry out the actions outlined below. We also outline the authorities a transit coordinator would need in order to take these recommended steps.

Recommendation 1

Prioritize early actions that increase transit use and ensure that new transit investments deliver the best public value.

Who's responsible: *MTC or a transit coordinator entity constituted within or outside of MTC*

Drawing on the lessons learned in the case studies (see Appendix B), SPUR has identified five key recommendations that can make the transit experience seamless to users, ensure that new service is improved service and support sustainable growth. For each recommendation below, we envision what it would look like if an agency functioning as transit coordinator spearheaded this effort, as discussed further in Chapter 4.

ACTION 1

Create a service-based vision for the transit network.

Despite a growing focus on integrating transportation and land use over the last two decades, the Bay Area still lacks a transit network plan with a strong regional focus to guide capital investments and service decisions, as well as the land use changes to support growth.

In regions where growth is dispersed and where demand for transportation is relatively low, it's critical that one agency be responsible for leading the strategic planning necessary for an integrated network of routes and services. Without this centralized planning, new services are likely to reduce overall efficiency and increase competition for riders.²⁵ For example, the extension of BART from San Jose's Diridon Station to Santa Clara will duplicate existing Caltrain service, and at a high price.

A long-range transit network plan would provide the vision and strategic direction for the Bay Area's infrastructure needs, making project selection more transparent and public dollars more purposeful. The strategic vision should aim to deliver the following:

- Sufficient transit capacity in the urban core of the region
- Fast and frequent service for regional trips

²⁵ See note 7.

- Convenient intercity and intermodal connections
- Growth that supports higher levels of transit, and vice versa

As part of this long-range transit network plan, SPUR recommends that the transit coordinator develop a strategic plan for service performance and capital investments of the regional transit network and rapid, high-frequency routes that feed into the regional system.

The strategic plan should:

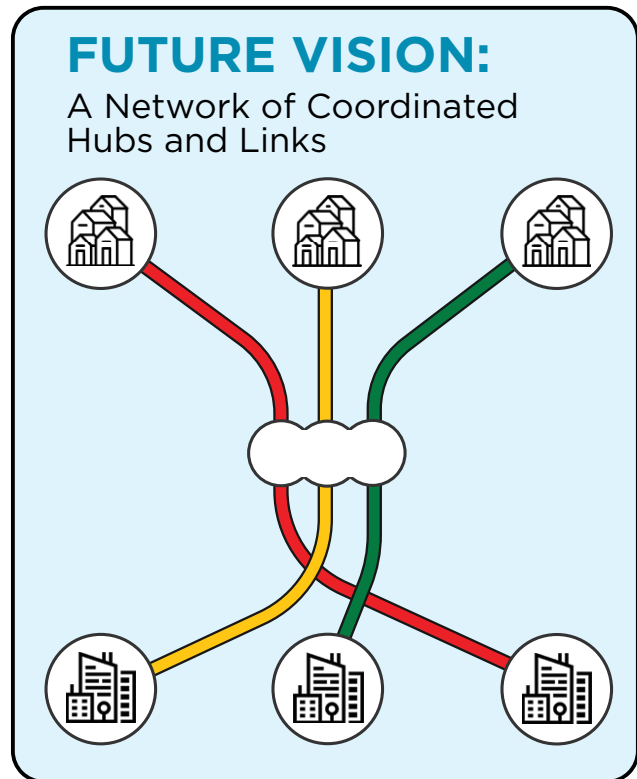
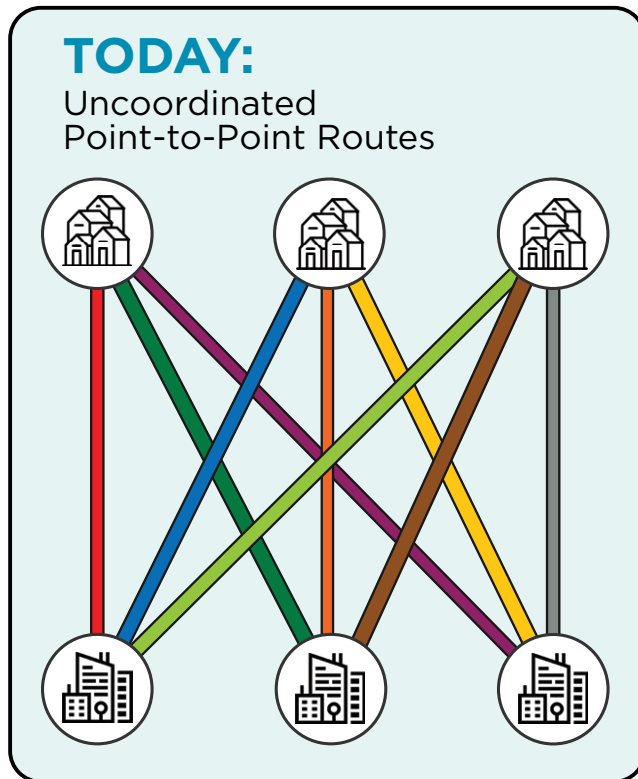
- Identify the trunk-line system (the corridors for high-frequency routes that feed into the rapid network) and a system of regional hubs that function as intermodal centers.
- Define the service vision that provides these regional transit services at regular, repeating intervals with minimal wait times between transfers.
- Establish short-, medium- and long-term standards for the quality of service on each corridor consistent with the service vision. The standards should focus on access and include both operational elements (frequency of service, hours of service, safety, reliability, timed connections, speed, productivity and interoperability) and user experience elements (information display and data format, ticketing, amenities and comfort). Service quality standards should correspond to land use and density and should recognize a variety of place types rather than taking a “one size fits all” approach to transit across the region. Standards specify a clear and appropriate level of connectivity and access.
- Develop consistent standards for transit vehicles and interoperability (i.e., the ability of vehicles and other transit system components to be interchangeable across all systems), in conjunction with operators and the California State Transportation Agency (CalSTA), to encourage joint procurement, shared equipment and shared maintenance.
- Set out a phased implementation plan, which could form the basis of the region’s official regional transportation plan. This phasing plan could be integrated with equity performance targets to ensure that the strategic plan moves the transit network in the direction of meeting its goals.

FIGURE 2
How Transit Coordination
Can Deliver More Flexible
and Efficient Regional
Service

One example of the benefits that a strong regional transit coordinator could deliver is faster and more flexible service. A network of coordinated transit hubs and links (represented on the right) would connect origins and destinations more efficiently than the uncoordi-

nated point-to-point routes that are common in our current transit network (represented on the left). The coordinated network would require many fewer miles of transit routes in order to connect all origins and destinations. Instead of spending budget to maintain so many route

miles, agencies could instead put resources toward running far more frequent service. While the scheme on the right would require more passengers to transfer, coordinated hubs would support timed transfers that would make most transit trips much faster.



The strategic vision should focus on trunk-line services, such as those that operate on key corridors and provide regional all-day high-capacity services (e.g., BART and Caltrain), other regional all-day services (e.g., transbay buses, ferries), regional commute services (e.g., ACE, Capitol Corridor, VTA Route 102), a network of regional hubs and, in the future, a comprehensive express bus network (described further in Action 2).

Though network-level strategic decisions would shift almost entirely to a transit coordinator, each transit operator could continue to make: 1) tactical decisions that translate the strategic vision into service and route planning decisions, capital plans and schedule coordination and 2) operating decisions such as hiring and maintenance.

Importantly, the service vision and standards must drive capital investment decisions. The plan would provide a strategic framework for the wider public policy objectives that capital investments should achieve. Once the minimum standards are in place, each transit agency could determine the capital programs and operating scenarios that are needed to achieve those minimum standards.

This approach is markedly different from past regional planning and investment decisions. Today, transit agencies and counties submit projects to MTC to evaluate. Because the commissioners also largely represent

Source: SPUR adaptation of Jarrett Walker, "Transferring Can Be Good for You, and Good for Your City," Human Transit, April 25, 2009, <https://humantransit.org/2009/04/why-transferring-is-good-for-you-and-good-for-your-city.html>. Illustration by Justin Fung.

counties, MTC tends to be deferential to counties and to more suburban interests. In other words, counties often have an outsized influence on the projects that are selected. To its credit, MTC has refined the project performance assessment so it is more objective than in previous years. Still, the regional transportation plan often functions more as an inventory of commitments and financial costs, useful for budgeting but not for planning an integrated transit network. For example, MTC adopted Resolution 3434, a political compromise that promised MTC's support for \$10.5 billion (in 2001 dollars) in rail expansion projects nominated by Bay Area political leaders competing for funds in their districts. It was a political deal, not a selection process based on a service vision or objective cost-benefit metrics.

A transit coordinator should allocate funding from regional ballot measures and state discretionary funds only to projects that align with the long-range strategic vision. The strategic vision should drive a list of priority projects that are significant to the region and a funding plan for implementation, in five- and 10-year increments. While transit agencies might still compete for projects, an implementation plan would help balance local interests with clear network objectives and public goals and should provide a transparent statement on the standing of each transit project.

The service vision should also play a role in planning for the region's hubs so that transit riders have efficient, intuitive and pleasant connections. Hubs are a vital part of attractive service, especially in a region with a significant proportion of low-density areas where smooth transfers are required for efficiency. Cities or neighborhoods that host essential hubs might be reluctant to embrace their role or might not prioritize factors that are important for making a place function as a transit hub (e.g., efficient local bus to the transit hub, pedestrian-friendly surroundings and supportive land use), so a transit coordinator or MTC should take a stronger role in defining standards for the hubs. SPUR recommends that the transit coordinator:

- **Designate a hierarchy of hubs within the transit network.** Hubs are stations whose design affects the functioning of the region's transportation system and the ease with which customers can make transfers and connections. Hubs are also anchors of places: The surrounding land uses and urban form matter because they ensure that people can access major destinations by transit.
- **Establish standards for the amount and type of growth around each hub.** For instance, some hubs are well suited for housing, while at others economic development would be a better fit, depending on the type of services that converge and the hub's location within the network. Figure 3 proposes a hierarchy of hubs within the network and land use expectations for each.
- **Require seamless connections between operators as part of regional transit capital investments.** A transit coordinator or MTC should develop operational goals for these connections for each type of station.
- **Coordinate emergency service provision,** including service cuts and restoration, among transit operators in order to ensure that the region maintains a core frequent transit network for people who need it most. Appendix C describes how the San Francisco Municipal Transportation Agency (SFMTA) has delivered a core frequent transit network in San Francisco in collaboration with partners, offering a model that could be adapted region-wide.

FIGURE 3
Typology of the Region’s Hubs

Establishing a typology with minimum standards for service and for land use could help guide network planning decisions and local plans. This approach could also build voter confidence when transit agencies seek funding or institutional changes, as it has done in Zurich.

STATION TYPE	SERVICES AVAILABLE	TYPE OF PLACE	STATION AREA	APPROPRIATE LAND USES	MINIMUM FREQUENCIES
Interregional Hubs	Intercity rail, regional rail, urban trunk, regional express and feeder bus, local bus, flexible modes	Biggest cities in the region with connections to the northern California megaregion and the state. These locations have the potential for the most economic development and compact urban growth. Most people get to these stations by walking, biking or transit. These are anchors of public life and people spend time in them whether or not they are boarding a train.	Up to 3 miles	Employment that draws on regional and megaregional labor markets, universities, government, very high-density housing, museums and other arts and cultural venues.	Regional, urban trunk and express services at least every 15 minutes. Intercity rail at least every 30 minutes.
Regional Hubs	Regional rail, urban trunk, regional express and feeder bus, local bus, flexible modes, ferries	Located in areas of high concentrations of employment. Sometimes located midway between interregional hubs. These are key places for transfers between local and regional modes, between different regional rail services. These stations are located in places with moderate to high land use response.	Up to 2 miles	Employment that draws on a regional labor market, government, major hospitals and medical centers, high-density to very high-density housing, retail, restaurants, childcare, museums, arts and cultural venues.	Regional and urban trunk and express services at least every 15 minutes.
Transfer Stations	Regional rail, express bus, local bus, flexible modes	These function as access points to the regional and intercity rail network. Feeder systems converge here, and most people access these stations on feeder services or by car. There is limited potential for land use response at most of these stations. These stations may be in highway medians or may simply be platforms with weather protections and ticket machines.	0.5 miles	Moderate-density housing, retail, restaurants, childcare.	Regional and urban trunk express services at least every 30 minutes. Feeder services at least every 15 minutes.
Terminals	Regional rail, urban trunk, express bus, local bus, flexible modes	These are similar to transfer stations, but are located at the end of a route. Relative to other stations, there is a large amount of parking in the station area.	0.5 miles	Low- to moderate-density housing, auto-oriented retail, restaurants, childcare.	Regional, urban trunk and express services at least every 30 minutes, depending on location in the network.



ACTION 2

Coordinate an integrated system of managed lanes and an express bus network.

The role of a transit coordinator in integrating regional express lane and regional express bus planning is worthy of particular attention for two main reasons. First, the type of fragmentation that exists in transit governance is now being reproduced in express lane governance. If decision-makers act quickly, it's possible to set express lane governance on a better course. Second, the diversity of decision-makers involved in developing and coordinating regional express bus service on freeways is different and sometimes more complex than coordinating among transit operators.

For this section, we use these terms:

- **Managed lanes** refer to lanes where specific strategies are used to address conditions such as traffic. This requires prioritizing the types of vehicles allowed to access the lane during periods of high demand, either through blanket restrictions (e.g., transit-only lanes) or through fees (e.g., tolls that increase when there is congestion).
- **Express lanes**, also referred to as high-occupancy toll lanes or HOT lanes, are traffic lanes that can be used by high-occupancy vehicles (and potentially other exempt vehicles) free of charge, while permitting access to other vehicles for a variable fee that is adjusted so that these other vehicles will not exceed available capacity in the lane.
- **Regional express bus service** refers to bus service that primarily operates regional-scale trips with limited stops. Such services often extend outside the boundaries of a single transit district.

Freeways cannot deliver fast and affordable connections for all the single-occupant vehicles that wish to use them, nor should they. The history of freeway expansion shows that once road capacity increases, more drivers choose to use the freeway, creating a new congested equilibrium. However, with limited investment, it's possible to manage the vast existing freeway infrastructure to support reliable, uncongested and affordable travel for buses and high-occupancy vehicles (HOVs). MTC envisions a 600-mile network of express lanes throughout the region for buses and other HOVs.

Nearly 150 miles of express lanes have been built or will be completed in the next two years. Unfortunately, because express lane operations and policy-making are currently distributed across five different express lane authorities, it will be difficult for the region to create a system of express lanes that is coordinated enough to support an integrated network of express buses.²⁶ Individual express lane projects currently take five to eight years. Future express lane projects are likely to be more complex than those being delivered today, so a coordinated delivery process will be even more imperative.

Express bus service is well established in the region. A dozen local transit agencies operate over 80 express bus services on nine different freeway corridors. Some of these services make extensive use of existing HOV lanes. However, due to poor enforcement and limited management tools, the HOV network is heavily congested

²⁶ The five current express lane authorities are:

- Bay Area Infrastructure Finance Authority (BAIFA) – a joint powers authority between MTC and the Bay Area Toll Authority
- Alameda County Transportation Commission (ACTC)
- Valley Transportation Authority (VTA)
- Sunol Smart Carpool Lane Joint Powers Authority (Sunol JPA) – an authority with representatives from Alameda County and Santa Clara County, managed by ACTC
- San Mateo County Express Lanes Joint Powers Authority – a joint agreement with the City/County Association of Governments of San Mateo County (C/CAG) and the San Mateo County Transportation Authority.

and fails to support fast and reliable travel times. In addition, freeways have insufficient infrastructure to support bus access to HOV lanes (e.g., direct access ramps) and lack safe passenger access to freeway-based bus services (e.g., median stations). Finally, most express buses are focused on commute trips bound for a single major employment hub or regional rail hub, missing the opportunity to efficiently serve many other regional transit customers. Thus, the region's current express bus routes do not constitute an integrated regional network and fulfill only a fraction of their potential.

Significant steps are already underway to begin coordinated express lane and express bus planning. MTC recently published a Managed Lanes Implementation Plan,²⁷ which enumerates express lane expansion plans and makes some initial recommendations regarding express bus services and park and ride facilities. MTC is also working on a 15-year Express Lane Strategic Plan, which includes some existing express bus routes and proposes several new routes. However, these preliminary documents stop short of confronting the coordination challenges needed to deliver regionally integrated express lanes and express buses.

To create a more cohesive network, the region must overcome significant obstacles, including the following:

- **Future express lane projects will be more complex than those already completed.** To run express bus services on highways, future projects must include infrastructure such as stations, passenger access improvements and direct access ramps that allow buses to efficiently enter and exit express lanes. Some projects will require converting general-purpose travel lanes, which heightens the need to coordinate the project with meaningful new express bus service.
- **Express lane policies are inconsistent across the region.** As the express lane system moves from individual corridors to the interconnected network that is essential to support regional bus service, coordinated operating policies become more essential. Such policies cover, for example, HOV passenger threshold requirements, hours of operation, pricing and enforcement. Presently, each express lane authority can establish its own operating policies and priorities, in coordination with Caltrans.
- **The express lane network must reach all parts of the region.** Having different express lane authorities for different parts of the region leaves large gaps, such as the Highway 101 corridor through Sonoma and Marin counties. Such gaps are a barrier to successful regional express bus service. For example, Golden Gate Transit operates multiple express bus services in the Highway 101 corridor and is one of the only express bus operators that is striving to deliver a coordinated express bus network. For Golden Gate Transit, the lack of consistent access to express freeway lanes drives up operating costs due to slow travel in congested traffic and diminishes the sort of reliability that is fundamental for planning a network.
- **There are too many authorities with overlapping roles and disparate priorities.** Coordination on freeway projects is a challenge because they generally involve multiple parties, such as MTC, Caltrans, individual counties and the California Transportation Commission. This makes it difficult to deliver projects on time, establish clear project priorities and create a sense of project ownership. Adding express bus infrastructure to these already complex projects all but guarantees delays and higher costs.

²⁷ MTC, "Managed Lanes Implementation Plan," <https://mtc.ca.gov/our-work/operate-coordinate/freeway-performance-initiative/managed-lanes-implementation-plan>



- **No entity is responsible for prioritizing regional bus service.** Today, regional bus transit needs will not be met if they do not fit neatly into a single transit agency's purview. MTC typically evaluates proposals from individual transit operators, but no one is proactively developing proposals that address the highest-priority regional needs.²⁸ In some parts of the world with multiple transit operators, the largest operators, or those specifically designated to deliver regional trips, are a natural source of regional coordination for bus service. That does not happen in the Bay Area because of the nature of transit district geographies.²⁹

Caltrans Coordination

As owner of the freeway network, Caltrans is a critical partner and retains significant authority over design details and operating policies. Delivering a regional express lane network and creating coherent express lane policies requires close coordination with Caltrans. To date, express lane efforts have faced challenges due to the extent and depth of Caltrans staff reviews, analyses and permissions. Efficient implementation of regional express bus service on freeway express lanes often involves new infrastructure that requires flexibility on freeway standards from Caltrans. This includes, for example, entry and exit ramps that provide direct access to express lanes, as well as bus stations within the freeway right-of-way.

At present, Caltrans must deal with a wide range of partners on express lane and express bus issues, some of whom have divergent interests. Caltrans has its own obligations for delivering state programs (for example, the State Highway Operation and Protection Program), as well as extensive freeway capital and operations coordination efforts with each of the nine county transportation authorities. Thus, for Caltrans, the lack of a coordinated regional voice for express lane and express bus priorities adds to decision-making challenges.

Guided by regional mobility, sustainability and equity goals and performance targets, the transit coordinator should:

- **Develop a regional express bus network plan.** This regional express bus plan would include a combination of existing express routes and new routes. The transit coordinator would lead the development of this plan in conjunction with planning for rail investment, transit governance and first/last mile access, as well as policies governing private transportation services.
- **Coordinate regional plans for managed lanes and regional express buses.** Based on priorities identified in the regional express bus plan, the transit coordinator would oversee adjustments to

²⁸ For the current regional transportation plan, Plan Bay Area 2050, MTC invited organizations and members of the public to propose projects. Not surprisingly, this generated several regional bus proposals to fill the gap, including regional express bus network proposals by SPUR and Transform, which were advanced for further study by MTC. This led to greater leadership by MTC in considering new regional express bus routes but has not yet prompted any broader regional express bus planning effort.

²⁹ The largest transit operator (SFMTA) serves only one city, so is not in a position to drive regional express bus coordination. BART, the second-largest operator, is also not in a position to lead regional express bus coordination, but for very different reasons. Although BART truly is a regional operator — directly serving five counties — it has its own dedicated infrastructure and no role in bus service. As a result, BART has not played a leadership role on regional transit integration. Moreover, BART has a board elected by geographic district, presenting further challenges to regional transit leadership. Other transit agencies have taken some leadership at the subregional level (e.g., AC Transit, Golden Gate Transit, VTA and the Contra Costa Transportation Authority) but are ill-equipped to tackle coordination beyond their subregion.

MTC's Express Lane Strategic Plan. The transit coordinator would also identify interim conditions where high-performing HOV lanes, bus-on-shoulder lanes³⁰ or other facilities could serve in place of express lanes in order to deliver uncongested bus service.

- **Align freeway rehabilitation projects with express bus infrastructure needs.** With many freeway segments and interchanges reaching the end of their design life, the transit coordinator could make sure that freeway rehabilitation and reconstruction projects integrate, or are designed to accommodate, express bus infrastructure such as stations and direct access ramps.
- **Convene express lane operators to support ongoing collaboration.** The coordination of infrastructure priorities, operating policies and customer experience goals for the region's network of freeway-based express bus services will require regular coordination across key partners, including express bus operators, Caltrans, express lane operators, county transportation authorities and local jurisdictions with express bus facilities.
- **Establish consistent operating policies across the region's express lane services to ensure that express lanes support express bus service.** The transit coordinator would need authority to ensure that policies are consistent among existing operators of managed lanes. This would require coordination on:
 - Pricing policies, including tolls for single-occupant vehicles and the criteria for free or discounted access to express lanes
 - Privately owned transit vehicles' use of facilities such as freeway medians or freeway-adjacent stations, direct access ramps and transit-only facilities such as bus-on-shoulder lanes
 - Enforcement strategies, policies and fines
 - Revenue-sharing agreements
- **Establish a system for selecting express bus operators for new service.** Today, express bus services are typically proposed by individual operators, so there is little question who would operate the new service. However, in a future where new express bus services are generated through a regional process, it might be less clear who should operate each service. The transit coordinator would need to establish a system to select an appropriate transit operator to deliver express bus services — either existing public operators or private operators performing designated public services under contract, according to specific performance and cost criteria.
- **Be the primary point of contact and coordination for Caltrans through corridor managers.** Caltrans and the transit coordinator could coordinate to develop a corridor manager model for the Bay Area region, similar to a model used in San Diego.³¹ To deliver express lanes that support high-quality regional express bus service, within a reasonable time and budget, Caltrans will need a strong sense of ownership, as well as a greater-than-usual level of flexibility and creativity in freeway design and project development.

³⁰ Bus-on-shoulder lanes are freeway shoulders that are adapted to permit buses to travel during designated hours, usually restricted to a maximum of 35 mph.

³¹ In San Diego, Caltrans corridor managers are paid partly by SANDAG, the Metropolitan Planning Organization (MPO). The corridor managers are accountable to both the MPO board and the Caltrans district office. SANDAG and Caltrans are jointly responsible for convening other stakeholders for individual express lane projects. The Caltrans corridor manager is in a position to improve Caltrans's sense of ownership for the project and creates an advocate within the Caltrans district office to ensure coordination across all projects affecting the express bus corridor. A similar arrangement could be created with the transit coordinator entity.

- **Establish regional protocols for private transit operators to use express lanes.** In the past 10 years, private buses and shuttles have played a growing role in regional transit, particularly large buses that carry employees to major technology campuses. The transit coordinator should have the authority to extend the use of express bus stops, stations or ramps to private bus services in locations that can accommodate the extra traffic, while also preserving sufficient space on these facilities for public buses.

ACTION 3

Create a simple fare structure and a fare integration fund.

In our reports *Seamless Transit* and *Solving the Bay Area's Fare Policy Problem*, SPUR found that affordability and ease of use are more significant drivers of transit use than the availability of transit is.

Currently, each of the region's transit operators sets its own fare policy, resulting in a hodgepodge of different fare structures, products, discounts and prices across the region. For riders, the disjointed fare policies are a major source of frustration and make transit more expensive to use. Fare policies can undermine the success of new transit investments and new farecard technologies and make it harder for people to use more than one operator for any given trip.³²

To address these barriers, SPUR proposes integrating and rationalizing transit fares so that people can ultimately pay the same fare to use any type of transit, anywhere in the region, with one farecard and can be rewarded for frequent transit use. Our audit of regional fare policies and a step-by-step proposal for fare integration is detailed in SPUR's report *Solving the Bay Area's Fare Policy Problem*.³³

In 2019, MTC analyzed fare integration as part of its project performance assessment for Plan Bay Area 2050, which models the costs and benefits of transportation proposals in 2050 and assesses the distribution of benefits by income level and geography. MTC found that fare integration not only advanced equity but was also one of the most cost-effective investments of all projects studied for the plan, with a benefit-cost ratio of between 5 and 10.³⁴

A major barrier to fare integration has been the concern that some operators might experience a net revenue loss. Near-term financial constraints for individual agencies are a genuine hurdle, even though simple and affordable fares would eventually increase ridership overall and revenue across the regional network. But to minimize financial pain, the region's fare integration plan should:

- **Quantify the near-term costs of fare integration for operators.** Despite its many benefits, fare integration has met with resistance because it lacks dedicated funding and comes with uncertain costs. Quantifying potential impacts on revenue could be part of MTC's business case for fare integration.
- **Raise and allocate funds for fare integration.** In the past, regional measures have supported steps toward a more coordinated system, such as the Means-Based Fare Study (2017) or the Regional Connectivity Study (2005). The case studies in Chapter 2 and Appendix B illustrate how important it

³² MTC, *Transit Connectivity Report*, 2005, https://mtc.ca.gov/sites/default/files/Transit_Connectivity_Report.pdf

³³ See note 17.

³⁴ Arielle Fleisher, "Transit Fare Integration Wins Transformative Projects Competition," February 18, 2020, <https://www.spur.org/news/2020-02-18/transit-fare-integration-wins-transformative-projects-competition>

has been to fund fare integration efforts, particularly for the Vancouver, Zurich and Toronto regions. Once the costs of fare integration are known, new sources of revenue could be found to meet these needs. Funding could come from a future regional funding measure or from road user charges (such as bridge tolls). We think this funding is best raised and allocated at the regional level to ensure consistency and centralized collection and distribution of revenue.

→ **Establish a revenue-sharing agreement among operators.** This would allow transit revenues to be collected centrally and then distributed among operators according to agreed-upon performance metrics and formulas. This approach was taken to integrate fares across multiple operators in Zurich, where the national government passed a law that required operators to participate in the fare integration fund or risk losing national subsidies.

Who Is Driving Fare Integration Today?

Today, the Clipper Executive Board and MTC each play a role in fare coordination. The Clipper Executive Board is composed of the CEOs or general managers from the seven operators with the largest number of riders (known as the “Big 7”). This group was formed largely to provide oversight on issues related to the Clipper fare payment system, but not necessarily to engage in coordinating fare policies among agencies. However, the Clipper Executive Board has become the de facto initiator of fare integration efforts, partially because there have not been other formal ways for operators to regularly engage in transit coordination efforts at MTC. For example, in 2019 the Clipper Executive Board approved funding to develop a business case for fare coordination across the region. (For more on business cases, see page 28.) A task force of the Clipper Executive Board is overseeing the development of this business case as of November 2020. But MTC also plays an important role — for example, by initiating the regional means-based fare pricing study in 2015³⁵ and approving Clipper START, the resulting means-based fare discount program pilot launched in July 2020.³⁶ While the Clipper Executive Board has evolved to play a much larger role in fare integration than was intended, and MTC has been proactive on means-based fares, we see a need for a formal and consistent way for operators to provide input on transit coordination efforts of all kinds.

35 MTC, *Regional Means-Based Transit Fare Pricing Study*, March 13, 2017, https://mtc.ca.gov/sites/default/files/Summary_MTC_Mean_Based_Overview_DRAFT_FINAL.pdf

36 MTC, “Clipper START,” July 15, 2020, <https://mtc.ca.gov/our-work/plans-projects/other-plans/means-based-fare-discount-program>



ACTION 4

Integrate customer information and wayfinding.

Customer information and wayfinding systems should make it easy for people to access and understand the transit services available to them, but in the Bay Area, these systems are inconsistent from operator to operator. Each uses unique nomenclature to describe its transit services and fare products, unique maps and unique customer information and wayfinding signage with distinct graphic styles. For the rider, these disparities make it more challenging to navigate from one operator to another. Confusing and inadequate customer information creates stress and discourages users from using transit for many different types of trips.³⁷ For more information, please see SPUR's report *Finding Transit: How Better Maps Can Make the Bay Area Transit System Easier to Understand and Navigate*.³⁸

The first major update to the region's transit map in over 30 years has been underway since 2015; in 2018, SPUR, MTC and the Silicon Valley Community Foundation, in collaboration with public transit operators, worked closely to develop MTC's newest regional transit map and to create shared map design guidelines and a GIS-based transit mapping platform. However, the map still hasn't been published. Similarly, the Hub Signage Program for transit was specifically funded as part of a bridge toll measure passed by the public in 2004, and the signage is still not fully in place. The process of making these changes takes way too long, primarily because no single agency has central responsibility over the effort. A single entity should ensure that the map is regularly updated and that it provides information about both the transit brands that are available and the frequency of service.³⁹

To finally deliver on integrated customer information and wayfinding for the region, a transit coordinator should be assigned responsibility to do the following:

- **Provide clear, consistent, up-to-date and ample transit information across the region.** MTC already administers the Hub Signage Program, which develops maps and information displays that orient passengers and help them find connecting services at key hubs. AC Transit, under contract with MTC, is responsible for updating and maintaining the signs. However, the often-limited information on these signs competes with information from individual transit operators, and the program has only limited staffing and sporadic funding.⁴⁰ A more effective program would make sure that the same current information is presented at every station and stop and on board transit vehicles; would publish sub-regional maps and maps with specific purposes, based on the universal regional map; would provide digital maps at transit hubs (also allowing for real-time information); and would ensure that the same real-time information feeds are available to online apps.

- **Develop a unified regional transit network brand that identifies all regional services and feeder services as part of the region's transit network.** A strong brand can create a sense of consistency and be a symbol of interconnectedness. For instance, Metrolinx recently implemented a transit brand for Toronto with a capital "T" inside of a circle. The brand is featured on all of the information that passengers might encounter, providing an additional (and first) layer of visual information within the

37 Transit Research Board's Transit Cooperative Research Program (TCRP), TCRP Report 111: *Elements Needed to Create High Ridership Transit Systems*, 2007, <http://www.trb.org/Publications/Blurbs/158910.aspx>

38 Arielle Fleisher, *Finding Transit: How Better Maps Can Make the Bay Area Transit System Easier to Understand and Navigate*, SPUR, January 2019, https://www.spur.org/sites/default/files/publications_pdfs/SPUR_Finding_Transit.pdf

39 Seamless Bay Area, "The Seamless Bay Area Vision Map," <https://www.seamlessbayarea.org/vision-map>

40 See note 39.

hierarchy to convey that the service is part of the region's transit network. The goal is not to replace each operator's logo and brand but to identify each service as part of a regional network.

ACTION 5

Bring down the time and cost of delivering transit projects.

The Bay Area has a mounting backlog of almost \$300 billion for transit maintenance and “state of good repair” projects⁴¹ and over \$100 billion worth of other projects in the pipeline. There are no ballot measures or funding sources that can raise this type of money,⁴² let alone raise it fast enough.

To create a seamless transit network, the Bay Area needs capital projects to make transit more reliable, integrated and frequent and in some cases to expand transit. Yet capital projects cost too much and take too long. Out of more than 90 capital projects submitted to MTC for Plan Bay Area 2050 in 2019, fewer than a dozen had benefits that exceeded costs.⁴³ For more information about the Bay Area's challenges with project delivery, as well as SPUR's complete recommendations for reform, please see *More for Less: How to Plan and Deliver the Bay Area's Seamless Transit Network in Less Time, for Less Money and with Better Public Value*.⁴⁴

The high costs of capital projects often come at the expense of service and customer experience. When major regional hubs can cost over \$5 billion, and grade separations (projects that create overpasses or underpasses to avoid rail tracks intersecting with roadways) regularly come in at over \$100 million, it's no wonder that there's little money left to deliver the frequency and quality of service needed. The current structure is a zero-sum game. Instead, the region needs to use its limited public dollars more effectively in order to deliver better projects and better service.

A long-range strategic plan that guides and prioritizes the region's capital investments according to a service vision should be the foundation for rationalizing investments in the transit network, but prioritizing the right project is not sufficient. The region will not be able to afford transit investments required to create world-class regional transit without also reforming project delivery to require higher levels of accountability and transparency to ensure excellence in planning and construction.

Other places around the world have developed robust oversight frameworks in project delivery at multiple levels of government, and regional transit coordinators play a central role. For example, in Canada, projects over \$250 million (Canadian dollars) must complete a project business case (explained in the first bullet below). Metrolinx in Toronto has developed extensive guidance for transit agencies to complete business cases so that Metrolinx can objectively evaluate and compare projects.

In the Bay Area, once projects are funded, MTC has few tools to ensure accountability and transparency and to keep project costs and timelines under control. Yet it's critical that the transit coordinator play a strong oversight role. The transit coordinator would hold a large part of the financial risk as a project investor and have a broad mandate to serve the public.

41 MTC, “Plan Bay Area 2050: Draft Needs and Revenue Assessments for Transportation, Affordable Housing and Resilience,” Planning Committee and ABAG Administrative Committee, Agenda item 5b, December 2019, https://www.planbayarea.org/sites/default/files/PBA50_Draft_Needs_Revenues.pdf

42 “FASTER Bay Area,” a potential regional transportation funding ballot measure under consideration for a period during 2019 and early 2020, would have raised approximately \$100 billion for public transit over 30 years from a 1-cent sales tax. This \$100 billion was the highest revenue of all funding sources explored. State laws cap sales tax rates, and most counties are at or nearing their cap, so potential revenue from sales tax increases are limited.

43 MTC, Project Performance Assessment, February 2020, <https://mtc.ca.gov/our-work/plans-projects/horizon/project-performance-assessment>

44 Laura Tolkoff, *More for Less: How to Plan and Deliver the Bay Area's Seamless Transit Network in Less Time, for Less Money and with Better Public Value*, SPUR, September 2020, <https://www.spur.org/publications/spur-report/2020-09-29/more-less>

SPUR recommends that the transit coordinator:

- **Create a standard framework for conducting transit business cases, and rigorously evaluate a project’s business case before making financial or political commitments to it.** A business case is a comprehensive approach to evaluating the impacts of a project. Business cases offer a mechanism for evidence-based and transparent project selection and for the public to provide input on a project at an early stage. Business cases could help the Bay Area improve investment priorities; reduce the time, cost and risk associated with the environmental review process; cut construction costs and timelines; change the public discourse around a project; and align public agencies around project goals and management structures. Some Bay Area transit agencies are starting to use business cases to develop long-range capital plans, but it’s not yet a uniform practice for prioritizing investments across a regional portfolio.
- **Require project sponsors to submit a business case for projects over \$250 million,** before the project can be included in the region’s transportation plan.
- **Create guidance documents so that project sponsors can develop business cases that are consistent and comparable for a range of potential capital investments.**
- **Allocate funding for the completion of a business case early on in a project’s life cycle,** since many agencies have limited resources to do rigorous planning prior to submitting projects for the regional transportation plan or prior to a local ballot measure.
- **Establish a “stage gate” process with phases and periodic decision points to determine a project’s readiness to advance to the next phase and receive more funding.** A stage gate process is a project management best practice that divides a project into phases, separated by decision points known as “gates.” Stage gates occur at major phase transitions and govern whether a project can move to the next stage toward delivery and operation, as well as whether funds can be allocated toward that next stage. At each stage gate, project sponsors are required to submit a set of deliverables for evaluation. Stage gates are intended to prevent agencies from making commitments to projects before determining that the project is sound, that the project sponsors are positioned to succeed and that the project can be expected to deliver on its objectives within current funding and time constraints. SPUR recommends that the transit coordinator implement a stage gate process early on and use the results of the review to drive funding decisions and provide input to the project sponsor to ensure that projects can be delivered quickly and cost-effectively.

Chapter 4

A Transit Coordinator in the Bay Area

Taking the actions needed to produce a seamless regional transit network requires centralized coordination that can likely only be achieved with one agency in the driver's seat. What that agency would look like is an open question. This report considers two potential models for the Bay Area's new transit coordinator, but these two options do not represent all possibilities, nor does the comparison consider all relevant factors. Whatever shape the transit coordinator takes, the organization should be designed with the assumption that it will have to evolve, both in its statutory power and in its skills and capacities. The approaches outlined here are intended to promote discussion among elected officials, transit leaders and the public.

Recent research by San Jose State University's Mineta Institute⁴⁵ examining regional transit coordination in Europe and Canada grouped transit coordinator institutions into three different approaches: 1. coordination only; 2. coordination and regional transit provider; and 3. complete consolidation. SPUR's analysis does not consider the third category — complete consolidation — because case studies such as those in Appendix B make clear that regional transit coordination can be achieved without consolidation. Nonetheless, complete consolidation is, in theory, a viable option for the Bay Area.

Recommendation 2

Create a transit coordinator for the region.

Who's responsible: State legislature and MTC

The Bay Area is not the only region with many different transit operators, but it does stand apart because it has not created an institution empowered to coordinate transit operations into a cohesive public transportation network. Based on existing authority and geographic coverage, SPUR believes that MTC is best suited to become the Bay Area's transit coordinator. The reasons are outlined in Figure 4 below. In short, MTC has jurisdiction over the full geography of the region, can influence coordination through its funding tools, and is better positioned to integrate transit investments with land use and other transportation functions. However, there are other viable options, and determining the path forward will involve hard choices — hard because there are few technical grounds for making one choice over the other, because any option requires changing the power and authority of institutions created decades ago and because each choice is imperfect. To arrive at our recommendation, we explored two of the leading options.

⁴⁵ Michelle DeRobertis, Christopher E. Ferrell, Richard W. Lee, and John M. Eells. "Characteristics of Effective Metropolitan Areawide Public Transit: A Comparison of European, Canadian, and Australian Case Studies" *Mineta Transportation Institute Publications* (2020). doi:<https://doi.org/10.31979/mti.2020.2001>

OPTION 1**Metropolitan Transportation Commission as the Transit Coordinator**

In this option, MTC would be promoted into the role of the Bay Area's transit coordinator. MTC would not operate public transit but would be responsible for transit integration and for overseeing project delivery. This is similar to the model of the *Verkehrsverbund* found in Germany and Switzerland. Promoting MTC would require significant changes in powers and skills not only for MTC but also for other institutions involved in funding, planning and operating transportation. MTC's composition would have to be evaluated, potentially incorporating designated seats on the commission for regional transit agencies or otherwise adding transit expertise to the commission. Some of these potential changes are described in Figure 5.

OPTION 2**Joined-Up Operator as the Transit Coordinator⁴⁶**

In this option, some operators would be consolidated to perform the role of the Bay Area's transit coordinator, as in London (Transport for London) and Canada (TransLink and Metrolinx). These coordinators also operate some of the public transit systems within the region (Metrolinx) or most of the transit (TransLink, Transport for London). In the United States, Seattle's Sound Transit is the prime example of a major regional operator functioning as a transit coordinator. (Sound Transit operates regional rail and light rail, contracts with other operators to deliver regional express bus service and coordinates the regional farecard system.) For the Bay Area, this approach would require both selective mergers of operators and changes to authorities and skills for transit operators, MTC and other institutions involved in funding, planning and operating transportation. These changes are described in Figure 5.

There are several options for consolidation, each with its own benefits and drawbacks. This report does not recommend a specific configuration but instead focuses on the bigger idea of having a "joined-up" operator act as the transit coordinator.

One possibility is to merge the Big 7 (SFMTA, BART, AC Transit, VTA, Caltrain, SamTrans and Golden Gate Transit District's bus service), which carry 95% of all transit riders in the Bay Area.⁴⁷ Another option is to merge SFMTA, BART, AC Transit and Caltrain, which carry over 80% of all transit riders in the Bay Area. Both of these options would consolidate most of the region's all-day high-capacity services, regional all-day services and regional commute services. Both options allow for mergers between operators that connect or serve the same corridors or markets. A third option for a joined-up operator is to merge the more strictly regional operators such as BART, AC Transit transbay service, Caltrain, San Francisco's Water Emergency Transportation Authority and potentially ACE, Capital Corridor and SMART. Each of these options should be evaluated closely and driven by opportunities for mutual benefit.

An additional approach, not deeply considered in this report, is to create subregional mergers and transit coordination units, for example by consolidating the 10-plus North Bay operators or local operators within each county. A merger of this sort would represent a small share of the region's transit ridership but could improve efficiency and connectivity and make broader regional coordination efforts simpler. Efforts to establish a transit coordinator need not be mutually exclusive from — and can be enhanced by — selective mergers.

46 This section considers joining operators for the purpose of functioning as the region's transit coordinator. Transit operator mergers may also be valuable for other reasons, such as potentially delivering more efficient and coordinated service as a single entity.

47 MTC, "Statistical Summary of Bay Area Transit Operators: Fiscal Years 2011-12 Through 2015-16," October 2017, <https://mtc.ca.gov/sites/default/files/StatSumBook2016-11-2-2017.pdf>

Evaluating the Tradeoffs

Where transit coordinators have been successful, they have benefited from the following factors:

- **Geographic coverage:** the ability to integrate transit over the geography of travel and to pursue functional integration across adjacent operators.
- **Funding control:** the ability to incentivize and reward coordination and to pool funding for the cross-subsidies needed to support high levels of service.⁴⁸
- **Modal integration:** the responsibility and authority to coordinate between public transportation (rail, light rail and buses) and, in some cases, the responsibility to coordinate roads, active transportation infrastructure (e.g., bike lanes) and new mobility options.
- **Land use integration:** the ability to influence land use decisions that support transit and to design and invest in the transit network in order to support areas of high demand.
- **Stakeholder engagement:** the ability to engage critical stakeholders, such as operators, cities and other agencies in developing and implementing strategic plans, policy, capital programs and sources of funding.
- **Independence:** the ability to be independent from day-to-day politics or from narrow interests, yet accountable to the broader public interest.
- **Political capital:** the ability to wield power and effect change within its purview through informal mechanisms such as relationships and trust, with minimal extraction, delay or dilution.

Each of these options has some advantages based on the features of the organization (as currently constituted) and factors that are known to support success. At the same time, both are still imperfect. For more about the tradeoffs, see Figure 4.

Between the options considered in this chapter, SPUR ultimately comes down in favor of promoting MTC into the role of transit coordinator. There are several areas where MTC seems to be at a relative advantage.

A key benefit (and responsibility) of the transit coordinator is to rationalize investments so that they add up to a seamless transit network. First, MTC may be better positioned to take a portfolio-wide and more objective view across all operators in the region. Second, major capital projects are subject to a number of shared characteristics that make them especially risky. One risk management best practice is to bring in an “outside view” in project planning, management and oversight.⁴⁹ Since the operator is also likely to be the entity delivering the project, it might not make sense to give the operator the responsibility of bringing an outside view. Additionally, aligning responsibility for strategic planning, financial stability and project selection and delivery oversight would create a greater level of central accountability for the region’s transit network. MTC is already responsible for distributing federal and state funding and could play a bigger role in aligning capital investments with the strategic vision, with additional regional funding and changes in the project evaluation process (see the sidebar “Other Factors for Success” on page 41).

MTC might be better suited to manage fare integration because it already manages the regional fare payment system, Clipper. It might have a greater ability to centrally manage the collection and distribution of funds and could be perceived as a more neutral broker in determining how to reimburse operators for service.

In North America, where land use planning tends to be done at the local level, it will be important for the

48 Vukan R. Vuchic, Richard Clarke and Angel Moliner, “Timed Transfer System Planning, Design and Operation,” United States Department of Transportation Urban Mass Transportation Administration, October 1981, https://repository.upenn.edu/cgi/viewcontent.cgi?article=1788&context=ese_papers

49 Karen Trapenberg Frick, “Megaplaning for Mega and Mini Projects: Common Challenges and Ways Forward,” Appendix C in Ratna Amin, *Caltrain Corridor Vision Plan*, 2017, https://www.spur.org/sites/default/files/publications_pdfs/Appendix_C_Megaplaning_for_Mega_and_Mini_Projects.pdf

transit coordinator to have some amount of influence over land use.⁵⁰ Currently, transit operators have very little ability to influence local land use planning and decisions beyond their own property. But MTC has already been authorized to play a more direct role in funding growth, and it could be useful to require the transit coordinator to leverage funding to shape land use. As detailed in Figure 4, MTC takes actions that influence land use, such as funding local area plans and affordable housing development near transit, as well as making certain transportation funds contingent upon compliance with zoning to facilitate housing.

MTC is already deeply involved in the planning, funding and operations of express lanes. More recently, the agency has taken leadership in considering express lane infrastructure investments that will allow express lanes to facilitate significant regional express bus service. While MTC is responsible for only some of the region’s express lanes, it coordinates extensively with all express lane operators and is better positioned than a joined-up operator to assert the need for express bus accommodations in express lane projects. While some transit agencies have deep experience with express bus operations, which will be valuable in developing a coordinated regional express bus plan, MTC’s geographically neutral position would promote an objective approach to regional express bus prioritization.

If MTC is promoted to the role of transit coordinator, there should also be a formal place for transit agencies to contribute and shape key decisions, especially in the creation of the service-based strategic plan and in project delivery. This could take the form of action-specific task forces or a standing transit coordination committee. Representation on this body should focus on regional operators or operators that carry the majority of the region’s riders and should be weighted proportionally to system ridership in order to support transit service where demand is highest.

FIGURE 4
Tradeoffs of Each Option
Based on Factors for Success
 This table examines each potential factor for success, comparing current authorities of MTC versus those of a hypothetical joined-up operator. Ultimately, a successful transit coordinator entity will also require new authority to perform the role successfully.

Geographical Coverage

MTC	JOINED-UP OPERATOR
MTC already has jurisdiction over the full nine-county Bay Area. There are significant commute flows with adjacent regions, including the northern San Joaquin Valley and Monterey Bay areas. MTC does not have jurisdiction over these areas, but it has established relationships and regularly coordinates with these Metropolitan Planning Organizations (MPOs) through its current regional transportation planning role.	A joined-up operator comprising the Big 7 operators would cover a geographic area that captures most of the region’s commuters and other current transit riders. Different scenarios of a joined-up operator would each have a different geographic scope. Some joined-up operator scenarios (e.g., one that does not include VTA or Caltrain) would be poorly positioned to coordinate with operators and MPOs outside of the Bay Area.

⁵⁰ This is particularly true in the North American context. In Switzerland and Germany, as in many other European countries, there is a stronger national spatial planning framework and expectations for conformity at the local level, as well as more tools at the local level to shape growth.

Funding Control

MTC

MTC already controls a little over half of all transportation funding in the region and could control more with additional regional sources of funding. MTC is also responsible for prioritizing projects for investment, and this creates a stronger alignment between the investment strategy and outcomes.

The fact that MTC is not a transit operator has potential to be a benefit and a drawback. MTC might be more objective in making regional transit funding decisions than a subset of operators, but it might also be perceived as less informed about operations funding mechanics.

JOINED-UP OPERATOR

Because the largest transit agencies skew toward more urban areas, some people in outlying areas might distrust the ability of a joined-up operator to understand the interests of a diverse set of counties and conditions.

It could be difficult for MTC, in its broader regional transportation funding role, to counterbalance the interests of a very large joined-up operator if their interests diverge, especially on issues of service planning, fare integration and project delivery.

Modal Integration

MTC

MTC has statutory authority to coordinate transportation within the region but few enforcement tools because of overlapping authority with transit agencies. MTC has some jurisdiction over other forms of surface transportation besides transit, such as bridges and, to a limited degree, highways. It does not have authority to manage or regulate new (private) mobility options.

MTC does require some modal integration as a condition for agencies to receive certain flexible transportation funds; for example, cities must have a qualifying “complete streets” policy in place. There are other areas where MTC has authority to require modal integration but has not, for example through additional funding criteria or through county and transit planning requirements.

JOINED-UP OPERATOR

Operators have the authority to design and deliver transit services. A joined-up operator would have authority to do the same across all transit modes that it operates. A joined-up operator would not have authority to manage or regulate new (private) mobility options, except in the rare circumstances in which one of its member agencies also owns the streets (SFMTA).

Overall, a joined-up operator might be better positioned to deliver deep coordination across transit modes — for example, to ensure that regional rail and express bus investments complement one another, providing strategic (but not wasteful) redundancy.

Land Use Integration

MTC

MTC is authorized to play a more direct role in funding and planning for growth but does not have land use authority. In 2011, MTC established a revolving loan fund to support affordable housing near rail and bus lines. Assembly Bill 1487, which authorized a ballot measure to fund housing, will also expand MTC’s role in supporting affordable housing in cities throughout the region should such a ballot measure be approved.

As part of its responsibility for preparing the region’s sustainable growth strategy, MTC coordinates with and shares staff with the Association of Bay Area Governments (ABAG), which distributes the Regional Housing Needs Allocation to each municipality.

MTC has a transit-oriented development policy, which establishes minimum housing development thresholds for each mode of transit; jurisdictions must meet these thresholds to qualify for regional transit expansion funding. During Fiscal Year 2020–2021, MTC is significantly updating this policy.

MTC dedicates significant funds to support transit-oriented growth in Priority Development Areas (i.e., areas that communities designate as preferred growth sites).

JOINED-UP OPERATOR

Transit operators have very little ability to influence local land use planning and decisions, even on their own properties. BART is an exception. Within constraints, for land that it owns, BART has land use authority that exceeds what MTC or other transit authorities possess.⁵¹

Some agencies, such as BART and WETA, have formal transit expansion policies, which specify development thresholds that must be met as a prerequisite for transit expansion to a particular area.

⁵¹ BART is an exception in that it has meaningful land use authority over its own property. Although BART owns more land than other agencies, its land holdings represent a very small fraction of the communities it serves.

Stakeholder Engagement

MTC

MTC does broad stakeholder engagement with jurisdictions, advocates and transit agencies under its current roles. However, there is a legacy of distrust between MTC and some transit operators and counties. These other agencies believe that their needs have not been adequately accounted for in past decisions or that MTC lacks adequate operating experience. Trust would need to be rebuilt over time.

JOINED-UP OPERATOR

A joined-up operator might have greater ability, through its local relationships and brand recognition, to garner stakeholder support.

Independence

MTC

Governing Board: Since MTC commissioners are mostly elected officials who are selected by governing bodies from their cities or counties, they are only somewhat independent but are still largely accountable to local constituencies. Many of them also serve on the boards of transit agencies. Because the commissioners largely represent counties, MTC tends to be deferential to counties and to more suburban interests. This lack of independence can lead to decisions driven by more narrow interests rather than the collective good. Indeed, commissioners who have voted for regional needs have faced consequences for these decisions.⁵² If MTC were to raise more funds at the regional scale, voter decisions at the ballot could provide some measure of accountability since the commission as a whole would be seeking to be responsive to the regional electorate.

Operations: Should MTC play a stronger role in coordination – without taking on the operation of any public transit services – there would continue to be a mixed degree of independence and accountability across agencies, depending on whether the board is directly elected or appointed.

JOINED-UP OPERATOR

Governing Board: The level of independence and accountability would depend on the composition of the board for a new joined-up operator. If the board is composed of elected officials who are either appointed or directly elected, these officials might be perceived as prioritizing the specific communities they serve rather than what is best for the broader transit network performance. Direct district elections create a high degree of accountability yet tend to be driven by more narrow interests and are not well suited to network-scale planning. At-large elections could create a greater level of independence. The independence of this board could be particularly important for driving capital decisions.

Operations: The joined-up operator could deliver all transit services in-house and be directly responsible for operations. Or it could subcontract some or all of its operations based on cost and quality (which Caltrain already does) or through franchising. In the case of these contracting arrangements, the independence and accountability of the joined-up operator would be determined by strategic goals, performance measures and the oversight it exerts over its contractors.

Political Capital

MTC

MTC has reasonable political capital within the region because of its relationships with county transportation agencies, transit operators, Caltrans District 4 and other coordinating bodies. However, MTC is constrained by historic frustrations over funding, and by commissioners who have to carefully straddle their local and regional priorities. MTC has considerable political capital extending beyond the region because of long-established relationships with state legislators, CalSTA and adjacent MPOs.

JOINED-UP OPERATOR

A joined-up operator would have strong political capital with other transit operators because of a history of ad hoc coordination and because of its peer role as an operator. A joined-up operator would likely have weaker political capital at the state legislature and with state transportation agencies.

⁵² In 2019, the MTC commissioner from Sonoma County was stripped of his positions on the Sonoma County Transportation Commission and Sonoma-Marín Rapid Transit District as a consequence for voting in favor of a regional housing measure at MTC.

Recommendation 3

Pursue institutional reforms to align the role of transit agencies and local jurisdictions with transit coordinator functions.

Who’s responsible: State legislature, MTC and the California Transportation Commission

Promoting MTC into the role of transit coordinator for the Bay Area, or creating a new or combined institution to serve this function, also requires rethinking the role of the region’s 27 transit agencies, nine county transportation agencies, nine counties and 101 cities in the decisions that affect public transit. The table in Figure 5 describes the governance changes, such as consolidations, new authorities or shifts in authorities, that would enable the transit coordinator (whether it’s MTC or a joined-up operator) to move forward faster with the transit integration actions described above.

FIGURE 5
A Transit Coordinator Would Need New Powers

Both MTC and a joined-up operator would require substantial new authorities to function as a transit

coordinator for the region. Each already has some powers to tackle key recommended actions. This table enumerates authorities needed to take the actions identified in Recommendation 1 in Chapter 3.

ACTION 1

Create a service-based vision for the transit network.

RESPONSIBILITY	MTC as Transit Coordinator	Joined-Up Operators as Transit Coordinator	ADDITIONAL NOTES
	SHIFT IN AUTHORITY	SHIFT IN AUTHORITY	
1. Develop a strategic plan for service performance and capital investments.	MTC is authorized by statute to establish regional transit service objectives and performance measures and improve service coordination and effectiveness in transit corridors of regional significance. However, these authorities will bump up against transit agencies’ funding constraints. Setting minimum service standards would require higher levels of coordination and more funding, presumably at the regional level, for operating and capital dollars.	The joined-up operator would need to be given the authority to improve service coordination and effectiveness, transferring the authority from MTC.	For corridor service standards implementation, funding (both operating and capital) would be needed to support implementation.
2. Prioritize capital investments.	MTC is authorized by statute to prioritize the allocation of funds for public transportation under federal and state laws. However, congestion management agencies also have a role in this. Making MTC the transit coordinator would require reducing the CMAs’ role in nominating and prioritizing regional transit projects for the regional transportation plan. It would also mean diminishing or eliminating the ability of transit agencies and counties to raise local dollars for projects that are not always consistent with the prioritized investment strategy.	Federal laws give Metropolitan Planning Organizations (MPOs) the authority to prioritize investments at the regional scale, and this is unlikely to change. Any shift of MTC authority to a joined-up operator would need to be handled as a voluntary agreement with MTC.	

Action 1, continued

	MTC as Transit Coordinator	Joined-Up Operators as Transit Coordinator	
RESPONSIBILITY	SHIFT IN AUTHORITY	SHIFT IN AUTHORITY	ADDITIONAL NOTES
3. Establish operational standards and goals for seamless connections.	MTC is authorized by statute to establish regional transit service objectives and performance measures. However, it lacks the ability to enforce this authority on projects. MTC would need the authority to have a bigger role in project delivery and oversight such as evaluating projects for their value for money and readiness to advance. Alternatively, the Commission could be required to adopt a finding that projects are designed to meet these goals prior to allocating funding.	The joined-up operator would need to be granted the authority to improve service coordination or develop operational standards outside of its jurisdiction, which would mean transferring that authority from MTC.	MTC is not a transit operator and might not have as much credibility to set operational standards, especially without formal engagement with operators.
4. Designate a hierarchy of hubs within the transit network.	MTC would need new authority to designate hubs, but this should be done in collaboration with ABAG, cities, transit agencies and CalSTA. MTC would require the authority to impose certain standards and priorities on adjacent street networks and to establish binding land use standards.	The joined-up operator would need to be granted the authority to improve service coordination and effectiveness, which would mean transferring that authority from MTC.	Ideally, the state would also play a larger role in designating hubs given the role of these locations in supporting economic growth and for consistency with the California State Rail Plan.
5. Establish standards for the amount and type of growth around each hub.	MTC could adopt a policy requiring that hubs meet growth standards before the commission will allocate capital funding. This would not require new authority, but it might be necessary to instruct MTC through legislation, given the agency's historical reluctance to use funding to incentivize compliance.	The joined-up operator would need to be granted the authority to establish these standards.	Cities might resist higher levels of transit if it requires land use changes. Cities outside of the jurisdiction of the joined-up operator might also resist standards for growth if they are not represented on the governing board.
6. Require seamless connections between operators as part of regional transit capital investments.	See shift in authority for #3 above.	The joined-up operator would need to coordinate with MTC to make these capital investments contingent.	

ACTION 2

Create an integrated managed lanes and express bus network.

	MTC as Transit Coordinator	Joined-Up Operators as Transit Coordinator	
RESPONSIBILITY	SHIFT IN AUTHORITY	SHIFT IN AUTHORITY	ADDITIONAL NOTES
1. Develop a regional express bus network plan.	MTC would not require new authority to develop such a plan. State legislation that declares minimum strategic deliverables would be helpful to guard against MTC being overly deferential to individual operators at the expense of regional coordination. Such authority would ideally be paired with funding to support MTC staffing for transit operations expertise.	The joined-up operator would not require new authority to develop a plan for the geography encompassed by the participating operators. However, state legislation setting out minimum strategic deliverables would help elevate criteria that might otherwise fall outside of the collective interest of the operators.	
2. Coordinate regional plans for managed lanes and express buses.	<p>MTC would require new authority to set policies for the nine-county managed lane network in order to guarantee coordination of the managed lane and regional express bus policies. However, MTC's existing authority over what is included in the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) could be a means to motivate coordination among operators.</p> <p>Coordination could mean consolidating existing managed lane authorities into one authority at MTC or giving MTC authority to set parameters that must be followed by individual managed lane authorities.</p>	This would require new authority for a joined-up operator. Besides VTA (which has jurisdiction within Santa Clara County), no other potential joined-up operator member has any authority or experience related to regional express lane management.	Engagement on express lane policies and management would be a completely new role for joined-up operator partners except for VTA. However, Golden Gate Transit has been deeply engaged with Caltrans in its own efforts to deliver freeway lane management.
3. Ensure that freeway infrastructure rehabilitation and reconstruction is coordinated with express bus infrastructure needs.	MTC would need authority to guarantee infrastructure rehabilitation is coordinated with express bus infrastructure priorities. However, MTC routinely coordinates with Caltrans on similar matters, so this coordination could take place under current authorities. To support such cooperation, the state could require MTC to certify that the Caltrans' State Highway Operation and Protection Program (SHOPP) is consistent with the proposed Regional Express Bus Network Plan.	A joined-up operator would need state authority to have strong influence on coordinating freeway infrastructure prioritization. To support such cooperation, the state could require the joined-up operator to certify that the Caltrans' SHOPP is consistent with the proposed Regional Express Bus Plan.	Engagement on freeway and highway infrastructure priorities would be a completely new role for joined-up operator partners except for VTA.
4. Convene express lane operators to support ongoing collaboration.	MTC already convenes express lane operators. While it lacks explicit authority to compel express lane operators to participate, MTC's authority over what projects are included in the RTP and the RTIP is sufficient to support its role as a convener. These convenings would benefit from a state mandate that MTC take on the responsibility of integrating and aligning express lane projects and policies.	A joined-up operator would need authority to compel express lane operators to participate in convening. Aligning express lane operator policies would be an entirely new role for most members of a joined-up operator.	
5. Establish consistent operating policies across the region's express lane services to ensure that express lanes support express bus service.	MTC would need authority to compel consistent policies across bus operators and across managed lane operators. However, as FasTrak administrator, MTC can establish certain requirements to facilitate reasonable toll collection, which could include certain operating standards. In addition, MTC's authority to determine what projects are in the RTP and RTIP could be used to drive consistent express lane operating policies.	A joined-up operator would need authority to compel consistent policies across managed lane operators.	

Action 2, continued

RESPONSIBILITY	MTC as Transit Coordinator	Joined-Up Operators as Transit Coordinator	ADDITIONAL NOTES
6. Establish a system for selecting express bus operators for new services.	MTC would need authority to do this consistently. MTC could accomplish this goal with cooperative agreements and incentives. It might have sufficient authority for certain funding sources (e.g., for transit projects through the 2018 regional toll ballot measure RM3) but not for other sources (e.g., Federal Transit Administration formula funds). But it would be better if MTC had explicit authority to identify bus operators for services that cross transit districts.	A joined-up operator would need state authority to determine route responsibilities for operators that are not part of the joined-up operator.	
7. Be the primary point of contact and coordination for Caltrans through corridor managers.	No change in authority would be required. Caltrans District 4 would need to support the use of corridor managers who would be partly accountable to MTC. There is precedent for this model based on Caltrans District 11 and SANDAG, the MPO for San Diego County. The state could mandate this model for the Bay Area, but it would be preferable if it could be implemented through Caltrans District 4 and MTC cooperation.	No change in authority would be required. However, having a Caltrans corridor manager be partially accountable to a joined-up operator would be odd because the joined-up operator would be involved with a relatively narrow range of Caltrans' overall infrastructure issues in any corridor.	Engagement on express lane policies and management would be a completely new role for joined-up operator partners except for VTA. However, Golden Gate Transit has been deeply engaged with Caltrans in its own efforts to deliver freeway lane management.
8. Establish regional protocols for private transit operators to use express lanes.	Authority under the current Bay Area Infrastructure Finance Authority (BAIFA) would need to be extended to the full nine-county region in order to establish regional protocols allowing privately operated vehicles to use freeway-based regional express bus facilities, particularly stops, stations and direct access ramps. However, for any new infrastructure, such protocols could be established as a condition of funding or inclusion in the RTIP.	The joined-up operator would need authority to set protocols governing private transit use of express lane facilities.	Engagement on freeway and highway infrastructure priorities would be a completely new role for joined-up operator partners except for VTA.

ACTION 3

Create a simple fare structure and fare integration fund.

	MTC as Transit Coordinator	Joined-Up Operators as Transit Coordinator	
RESPONSIBILITY	SHIFT IN AUTHORITY	SHIFT IN AUTHORITY	ADDITIONAL NOTES
1. Set coordinated fares.	Transit agencies currently have the authority to set fares. This authority would need to be transferred to MTC.	All agencies' authority to set fares would have to be transferred to the joined-up operator.	Fare integration could lead to higher fares for some routes and services than what riders are currently paying. If fare integration stops short of more comprehensive fare policy reforms — such as means-based discounts or tools that reward people for riding transit — then it will not meet goals for affordability and equity. Some transit agencies have already passed ballot measures on the premise that the funding will stabilize transit fares, potentially creating problems around transparency and accountability.
2. Collect and redistribute fares from fare integration fund through revenue-sharing agreements among operators.	MTC could establish a fare integration fund, but it is easiest to administer if fare collection is centralized and redistributed.	This is a new authority that would need to be granted.	
3. Raise and allocate funds for fare integration.	MTC can place measures on the ballot with authorization from the California Legislature. These measures require two-thirds voter approval.	Each agency has different taxing authorities depending on the type of agency (e.g., special district, joint powers authority) and would likely require new authority for fundraising.	
8. Establish regional protocols for private transit operators to use express lanes.	Authority under the current Bay Area Infrastructure Finance Authority (BAIFA) would need to be extended to the full nine-county region in order to establish regional protocols allowing privately operated vehicles to use freeway-based regional express bus facilities, particularly stops, stations and direct access ramps. However, for any new infrastructure, such protocols could be established as a condition of funding or inclusion in the RTIP.	The joined-up operator would need authority to set protocols governing private transit use of express lane facilities.	

ACTION 4
Integrate customer information and wayfinding.

	MTC as Transit Coordinator	Joined-Up Operators as Transit Coordinator	
RESPONSIBILITY	SHIFT IN AUTHORITY	SHIFT IN AUTHORITY	ADDITIONAL NOTES
1. Provide clear, consistent, up-to-date and ample transit information across the region.	This is a new authority that would need to be granted or done by mutual agreement between MTC, operators and station owners.	This is a new authority that would need to be granted or done by mutual agreement between the operators and station owners.	
2. Develop a unified regional transit network brand that identifies all regional services and feeder services as part of the region's transit network.	MTC would not need new authority but would need financial resources to implement changes in all forms of customer information. Alternatively, MTC could allow agencies to provide information themselves, but require that agencies meet pre-determined design standards as a condition for receiving capital funding.	This is a new authority that would need to be granted.	

ACTION 5
Bring down the time and cost of delivering transit projects.

	MTC as Transit Coordinator	Joined-Up Operators as Transit Coordinator	
RESPONSIBILITY	SHIFT IN AUTHORITY	SHIFT IN AUTHORITY	ADDITIONAL NOTES
1. Create a standard framework for conducting transit business cases and rigorously evaluate a project's business case before making financial or political commitments to it.	This could be accomplished by granting statutory authority to MTC, or it could be implemented by the Commission by Resolution. If the latter, the Commission could resolve to evaluate the business case for a project as a condition for inclusion in the RTP or as a condition for funding.	This is a new authority that would need to be granted.	There are often informal understandings among elected officials that supporting someone else's project will give you support for yours. A system of business case evaluation should take this into account.
2. Establish a "stage gate" process with phases and periodic decision points to determine a project's readiness to advance to the next phase and receive more funding.	This is a new authority that would need to be granted.	This is a new authority that would need to be granted.	This could create unhelpful duplicate processes on larger projects receiving funds from the Federal Transit Administration's Capital Investment Grants or New Starts Program. This should consider how it impacts the viability of projects relative to other projects in the state that are also competing for state and federal funding.

Other Factors for Success

Reduce the number of operators.

A chief reason why transit integration has been slow is the sheer number and diversity of operators. While mergers can be difficult to accomplish and don't automatically yield benefits to riders, there have been successful mergers such as LA Metro (1993),⁵³ SolTrans (2011)⁵⁴ and WETA (2012).⁵⁵ To ensure that mergers result in positive and equitable outcomes for riders and the broader public, the following should be considered:

- The composition of the governing board; the skills, interests and tenure of leaders
- Funding levels, sources of funding and the ability to raise new funds
- Ownership and control of rights-of-way, land use, roads, etc.
- Rules about procurement of services and products
- The quality of the fleet, facilities and other assets
- The debt and debt structure of each agency
- The public's ability to spur agency improvement
- Relationships with stakeholders, such as municipalities, other operators and funding agencies
- Institutional practices, systems and technology
- Integration with other parts of the transportation system (bridges, highways, etc.)
- The ability to affect transportation policies, such as transportation demand management requirements, parking fees or tolls

SPUR recommends that the California Legislature spearhead an effort to evaluate the consolidation of some of the Bay Area's transit agencies, particularly those that serve the most riders and are adjacent to each other, where there can be mutual benefits for all parties. However, this will be more successful if there is some local agreement on areas of mutual benefit based on shared ridership and financial conditions. The Blue Ribbon Transit Recovery Task Force, convened by MTC in May 2020 and under way at the time of this publication, is an outstanding opportunity to achieve such local agreement.

Evolve funding authorities.

Establishing a transit coordinator also requires rethinking how transit is funded, since funding drives governance. Some considerations include:

- Moving toward regional transportation funding, with a focus on public transportation
- Moving toward regional tax sharing in order to reduce the fiscalization of land use near stations, shift regional power dynamics and allow for cross-subsidization of transit investments
- Conditioning future state and regional funding on advancing institutional reforms and transit integration

53 Wikipedia, "History of the LACMTA," https://en.wikipedia.org/wiki/History_of_the_LACMTA

54 Sarah Rohrs, "Huge Deficit Already Saddles Merged SolTrans Bus System Serving Benicia and Vallejo," *Vallejo Times Herald*, July 26, 2011, <https://www.timesheraldonline.com/2011/07/26/huge-deficit-already-saddles-merged-soltrans-bus-system-serving-benicia-and-vallejo/>

55 "San Francisco Bay Ferry Assumes Operation of City of Vallejo's Baylink Ferry Service," *Business Wire*, July 2012, <https://www.businesswire.com/news/home/20120702006023/en/San-Francisco-Bay-Ferry-Assumes-Operation-City>

- Pooling revenue for shared system improvements that benefit everyone
- Minimizing the ability of congestion management agencies and transit agencies to skip over regional funding priorities by raising local funding
- Authorizing revenue-sharing between modes, such as allowing road use charges to support transit

Conclusion

The Bay Area's transit system simply doesn't work for many people. Because we as a region have failed to break down barriers and reimagine our institutions for so long, we are facing not only disjointed fares, schedules, customer information and wayfinding but also the mounting need to upgrade existing infrastructure and add to it. By conceiving of new ways of working together, we can do more to achieve a seamless transit network than any agency can working alone.

Appendix A

Regional or Local Authority? Seven Decades of Push and Pull

The Bay Area's current transit system, with a highly limited regional governance structure and a multitude of agencies that each largely deals with a single problem or single geography, evolved from several significant attempts to reform regional governance. However, every push toward regional governance has coincided with a countervailing pull back toward local control.

Transportation and land use decisions are still largely disconnected and driven by local interests instead of collective interests. The Bay Area's extremely limited form of regional government has little power to advance high-quality transit investments, contain sprawl and create transit-supportive land use. Instead, a multitude of smaller agencies shape most of the transit in the region. These include congestion management agencies, transit agencies, transit operators, private micro-mobility companies and a host of private companies offering transportation services to employees.

Regional Push: In the 1950s, a group of civic leaders called for a new Bay Area agency, the Golden Gate Regional Authority, to plan for and manage development, integrating land use, transportation and pollution control. These leaders sought state legislation to create this new regional agency with capacity and authority to coordinate and manage planning and regulation across these policy domains. However, many local politicians and county commissioners reacted with strong opposition and organized to defend home rule. In the end, the legislature voted against the Golden Gate Regional Authority.

Local Pull: Also in the 1950s, as autos became increasingly popular, private transit providers began to fail. These included the East Bay's Key System, Peninsula Transit and the South Bay's San Jose City Lines and Peerless Stages. As a result, there was a push to have public transit operators take over private streetcars and bus lines. The state of California passed legislation in 1955 to create publicly owned special transit service districts.

Local Pull: In 1960, mayors of dozens of Bay Area cities advocated for the creation of a council of governments composed of local elected officials, the Association of Bay Area Governments (ABAG). ABAG was, and still is, dedicated to strictly voluntary regional collaboration.

In the 1960s, leading environmentalists also opposed a more regional vision and efforts to coordinate regional-scale services, out of concern that any powerful regional government would effectively promote growth.

Regional Push: The Federal-Aid Highway Act of 1962 mandated the formation of metropolitan planning organizations (MPOs) to conduct regional transportation planning and distribute federal transportation funding for urbanized areas (as designated by the U.S. Census). California created the Metropolitan Transportation Commission in 1970 and designated it as the Bay Area's MPO. Subsequent federal laws and funding programs created in the 1990s strengthened the role of MPOs such as MTC by giving them more power to decide how to spend federal transportation dollars at the regional and local levels.⁵⁶

⁵⁶ MTC, "MTC History," <https://mtc.ca.gov/about-mtc/what-mtc/mtc-history>



Local Pull: The establishment of MTC coincided with the passage of a state law that made it easier to fund and establish local transit operations. In 1971, the state legislature passed the Mills-Alquist-Deddeh California Transportation Development Act (TDA), which authorized returning a portion of the state sales tax to counties to fund local transit operations. Most counties had the opportunity to buy into existing transit operations, but many chose to start their own instead.⁵⁷

California's tax policies, passed during the tax revolt of the 1970s and '80s, exacerbated the pull toward local control over transportation. Proposition 13, by limiting how much local governments can collect in property taxes, created an incentive for municipalities to attract employers within their boundaries because such commercial land uses afforded local government revenue opportunity that residential uses could not supply.⁵⁸ Fast-growing Bay Area suburbs began to exert their influence and aspirations over regional transportation funding decisions more strongly and expanded local funding for transportation.^{59,60}

Regional Push: In 1989, numerous regional leaders established Bay Vision 2020, an initiative that sought to create a unified regional agency able to manage issues such as land use, transportation and air pollution. A commission was appointed to study the region's urban problems, develop a regional plan and design a permanent regional agency to implement the plan.⁶¹ Bay Vision 2020 recommended combining MTC, ABAG and the Bay Area Air Quality Management District, but the proposal lost by just five votes in the California Senate in 1992.⁶²

Local Pull: In 1990, California voters passed Proposition 111, which increased the state gas tax, enacted a statewide traffic congestion relief program and required counties to designate a countywide congestion management agency (CMA) to prepare a congestion management plan and manage expenditures of the gas tax and several other state funds, some federal funds and any local or county transportation sales tax measures.⁶³ The CMAs were also given authority to deny funds to local governments whose land use plans were not in compliance with the congestion management plan, but this enforcement authority was rarely used and gradually weakened by subsequent laws.⁶⁴ Still, MTC requires counties to prepare countywide transportation plans and expenditure plans with the counties highest priority projects. Coupled with the fact that MTC's governing board largely represents counties, this process gives counties a significant role in transportation planning.

Regional Push: Since MTC remains an extremely limited form of regional government, there have been several more recent attempts to expand MTC's authorities and/or combine it with other agencies.

57 Brian Taylor, *Unjust Equity: An Examination of California's Transportation Development Act*, 1991, <https://escholarship.org/uc/item/7h13774d>

58 Sarah Jo Szambelan and Egon Terplan, *Back in the Black: A Fiscal Strategy for Investing in San Jose's Future*, 2016, <https://www.spur.org/publications/spur-report/2016-05-12/back-black>

59 For instance, the Santa Clara Valley Transportation Authority's first sales tax dedicated to transportation was passed in 1976, prior to the passage of Prop. 13 and almost a decade after the formation of the agency. It has consistently raised new measures to support countywide transportation in 1996, 2000, 2008 and 2016.

60 Robert O. Self, *American Babylon: Race and the Struggle for Postwar Oakland*, Princeton University Press, 2003, pp. 97-131.

61 Kenneth A. Brunetti, "It's Time to Create a Bay Area Regional Government," *Hastings Law Journal*, Volume 42 (4), 1991, https://repository.uchastings.edu/cgi/viewcontent.cgi?article=3037&context=hastings_law_journal

62 Joe Bodovitz, "Bay Area Regionalism—Can We Get There?," *The Urbanist*, September 1, 2003, <https://www.spur.org/publications/urbanist-article/2003-09-01/bay-area-regionalism-can-we-get-there>

63 MTC, "Congestion Management Agencies," <https://mtc.ca.gov/about-mtc/what-mtc/partner-agencies/congestion-management-agencies>.

64 BayRail Alliance, "What is a Congestion Management Agency?," http://www.bayrailalliance.org/question/what_cma_congestion_management_agency/#:~:text=111%2C%20passed%20by%20California%20voters,to%20keep%20traffic%20levels%20manageable.

- In 1996, the California Legislature passed SB 1474, which required MTC to adopt rules and regulations to promote the coordination of fares and schedules for all public transit systems. It also required every system to enter into an agreement to share fare revenue with connecting systems. However, the law did not produce the intended results, as the Bay Area still largely lacks these agreements.
- In 2008, the California Legislature passed SB 375, requiring each region to create a sustainable communities strategy, a regional plan for transportation and growth tied to specific environmental goals. Though Plan Bay Area is commonly seen as one of the most innovative regional growth plans in the country, there has been consistent friction among municipalities and MTC over the implementation of the plan.^{65,66} At times, it seems that the only reason MTC and ABAG have been able to adopt the vision is because there are few tools to implement and enforce it.⁶⁷ This allows for bold planning to meet state environmental goals without threatening bold action that could disrupt business as usual.
- In 2016, the staff of ABAG and the staff of MTC merged into a single staff that reports to the executive director of MTC. However, there has been no corresponding merger of the boards of these two agencies. The staff merger has yielded some efficiency gains and improved collaboration, but ABAG and MTC continue to maintain their different levels of interest in regional roles.
- In 2019, through AB 1487, the legislature created the Bay Area Housing Finance Authority to support the production and preservation of affordable housing by providing regional funding and technical assistance for affordable housing, an attempt to overcome the city-by-city approach to housing production. This agency's governance is shared with MTC and ABAG. The legislation also authorized MTC to put a regional housing measure on the ballot in November 2020, though COVID-19 disrupted such action.

⁶⁵ For example, in preparing Plan Bay Area 2050, MTC and ABAG sought to update the 10-year-old program to focus growth into Priority Development Areas (PDAs), which are areas within communities along the existing transportation network. The PDAs are entirely optional, and cities that opt in to PDAs are rewarded with planning grants. In evaluating the program, MTC found that many cities did not opt in to the PDAs or complete their plans. Additionally, only 6% of the PDAs were located in areas of high opportunity, reflecting a long history of policy decisions that disadvantage people of color and low-income people. For Plan Bay Area 2050, MTC identified new areas eligible for PDAs across the region. Cities were also allowed to nominate their own PDAs or adjust the boundaries of those identified by MTC. However, nearly all cities failed to nominate more than 50% of their PDA-eligible areas. Consequently, the ABAG Board of Directors took the bold step of designating PDAs in transit-rich and high-resource locations if cities did not do so themselves, a decision that engendered significant backlash from municipalities. As a result, MTC and ABAG opened a second call for nominations.

⁶⁶ "Plan Bay Area 2050 Draft Blueprint: PDA and PDA-Eligible Areas Updated 4-2-20," https://www.planbayarea.org/sites/default/files/pdfs_referenced/PBA_2050_Draft_Blueprint_for_Study_PDA_and_PDA_Eligible_Area_by_Jurisdiction.pdf

⁶⁷ Plan Bay Area 2040 was adopted only with an explicit provision that the plan was nonbinding.

Appendix B

Case Studies: Transit Coordinators Around the World

This appendix explores some of the models for regional transit coordinators in different countries, selected because they have made relatively recent transformations or are located in areas with somewhat similar geographical scale to the Bay Area, with highly diverse land use patterns and large areas of low-density suburbs or rural areas. Each section describes the origins, functions and governance of the transit coordinator in that region.

Zurich

Zurich is a canton, which is one level below the federal government in Switzerland. Zurich has a relatively dispersed growth pattern and low densities outside of the capital city. The Zürcher Verkehrsverbund (ZVV) was established in 1990, after two decades of suburban growth, two failed ballot measures to support transit, the rise of environmentalism and major new capital expansion plans along the national railway.⁶⁸ Though there was excellent public transportation within the city of Zurich, there was growing demand for travel from the suburbs into Zurich and between the suburbs. The fragmented transit network was not adequately serving these areas.⁶⁹

Zurich is well known for its approach to service delivery, which focuses on networked mobility. It offers very frequent service on all major corridors, accessible with integrated fares and high-quality transfer facilities. The highly saturated network utilizes a “pulsed-hub” (*Taktfahrplan*) schedule focused on maximizing connections. In a pulsed-hub schedule, trains and buses arrive before the pulse time, allowing people to transfer from one mode or route to another before vehicles depart the station.⁷⁰ Feeder and local services are planned around rail, the high-capacity backbone of the transit’s network, which is owned by the Swiss Federal Railways (SBB). On-time performance is extremely high in order to meet the timed connections, creating a reliable network with short and predictable wait times. Additionally, the networked approach allows people to travel in all directions, better serving the suburbs and freeing the transit operators from the need to predict where people are going.

ZVV is responsible for setting basic service standards. In Zurich, each type of place is guaranteed a minimum level of local service (usually buses) to connect it to the rail network. For instance, in Zurich, every settlement with 300 residents or jobs must be provided with basic transit service.⁷¹ A regular service pattern is repeated throughout the day, with additional service provided during peak hours.

68 See note 7, p. 133.

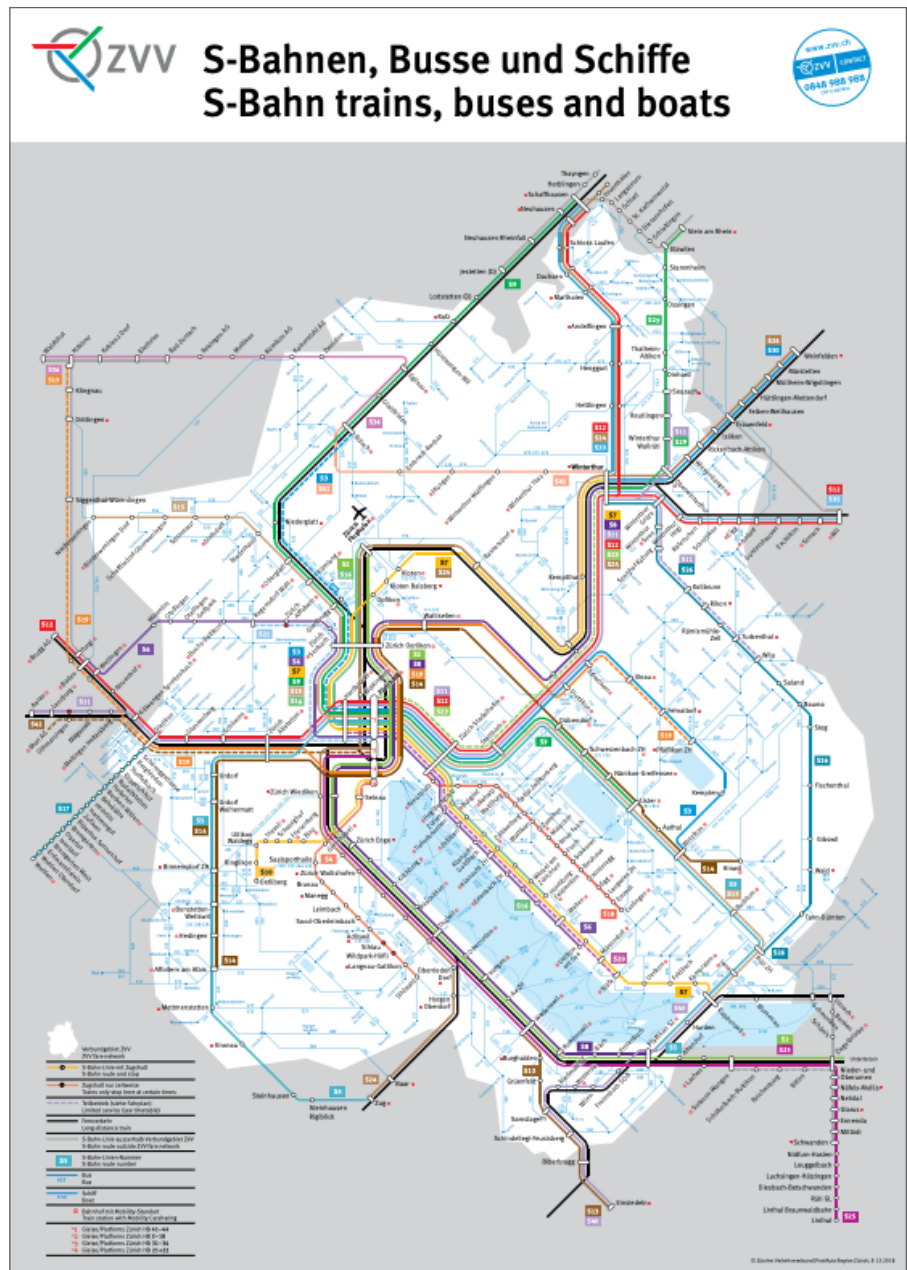
69 Ibid.

70 Tim Petersen, “Network Planning, Swiss Style: Making Public Transport Work in Semi-Rural Areas,” 2009, https://www.researchgate.net/publication/254609967_Network_planning_Swiss_style_Making_public_transport_work_in_semi-rural_areas

71 See note 7.

FIGURE 6
Map of Zurich's Transit Networks

The efficiency of the transit coordinator is visible on the map. For instance, there are few places where bus service overlaps with the S-Bahn. Instead, buses make connections at key stations and provide access to the regional rail network.



ZVV focuses its efforts on strategic planning, setting the timetable, financing and marketing. Developed in coordination with SBB and other operators, each timetable is set for a period of six years. Stability in the timetable is key because of the level of network saturation. Operators continue to manage tactical planning. A tightly managed schedule is complemented by integrated fares, customer information and marketing.

ZVV collects fares and reimburses operators based on the services provided. Determining the funding formula was a significant challenge, but operators were incentivized to participate in fare integration or risk losing national subsidies.

ZVV is overseen by the Transport Council, which is made up of current and former representatives from the canton, the largest cities (Zurich and Winterthur), SBB and the national government, as well as three mayors

of smaller cities who are appointed by their peers in the canton. The entities represented on the council play a role in funding and financing the transportation network. In order to avoid conflicts of interest, no operators are permitted on the Transport Council other than SBB, which is a state-owned company.

ZVV is a small organization with a streamlined organizational structure. Most services are contracted out, including service operations, fare collection, passenger counts and customer surveys. In this way, ZVV focuses only on the major strategic planning efforts.

The transit coordinator plays a significant role in ensuring the financial stability of the transit network and ensures that the costs of service are reasonable. If a service becomes too expensive or if performance starts to decline, ZVV works with the operator to develop cost and quality thresholds and sets a timeline for correction.

ZVV also owns the canton's buses, but contracts operations out to other organizations.

Funding for public transportation comes from a mix of fares and subsidies; half of the subsidies come from the canton, and half come from the municipalities in the canton.⁷² ZVV also raises revenue from monetizing assets, such as stations, parking and bicycle share. Cities in the canton that wish to have more service pay more for the service. The canton also provides an annual fund for capital expenditures, which can be rolled over from year to year and used as either a revolving loan or a grant. ZVV's role in collecting and distributing fare revenue offers greater opportunity to deliver quality suburban service options.

Of all the agencies presented in our case study, ZVV has the least influence over street design and land use. However, minimum service standards and funding are set by referendum, so municipalities are expected to work with ZVV to adhere to those standards, which offers an opportunity for ZVV to have some indirect influence over land use.

Though the canton has a dispersed growth pattern and low densities, ZVV has the highest ridership rates in the world. Customer satisfaction is high, and voters have consistently supported ballot measures to raise funding for public transportation since the 1980s.

Key Takeaways and Additional Considerations:

- A planning philosophy rooted in maximizing connections can create an extremely productive and efficient network in a low-density, dispersed region such as the Bay Area.
- A centralized fare collection and distribution system allows for cross-subsidization among services, which creates the possibility to increase service in suburban locations.
- A clear division of labor between strategic and tactical planning can build trust and support collaboration.

Frankfurt

Today, nearly all public transportation networks in Germany (as well as Switzerland and Austria) are coordinated through associations called “transport alliances,” or *Verkehrsverbunde*.⁷³ These associations coordinate public transit services through metropolitan areas or sometimes across entire states. They oversee strategic planning, services, fares, ticketing, marketing and customer information. Increasingly, they are also coordinating other mobility services, such as car-sharing and bike-sharing. *Verkehrsverbunde* started in the 1960s as largely voluntary associations and proliferated quickly, in part because of their success in providing attractive fares, improving service and increasing ridership (and in part because of a 1993 federal law devolving much power to

⁷² See note 7, p. 135.

⁷³ See note 20.

the states).⁷⁴ *Verkehrsverbunde* have become increasingly formalized and nearly mandatory over the years.

The Rhein-Main Verkehrsverbund⁷⁵ (RMV) was established in 1995 and organizes (but does not operate) all rail and bus transit in the Frankfurt Rhine-Main region and five neighboring states, reflecting the geography of travel. Its core responsibilities include developing a strategic plan for the transit network, setting standards for transit service levels, setting and collecting fares and contracting with operators to provide services. RMV can also help finance capital projects needed to increase service levels, and it sometimes is responsible for contracting the construction for bus projects.

RMV’s board of directors is composed of elected officials from the state of Hesse. Transit operators are not directly represented, as this would be seen as a conflict of interest. However, political officials are also the owners and funders of the transit agencies; therefore, transit operators have indirect representation on the board. Each director gets one vote. The chair usually represents the state of Hesse or the City of Frankfurt, but this is decided informally.

FIGURE 7
Allocation of Tasks in Transport Alliances

The effectiveness of transport alliances is aided by the clear delineation of responsibilities among local jurisdictions, the alliances and individual transit operators.

LEVEL OF AUTHORITY	TYPICAL TASKS
Government Jurisdictions	Determining overall level of public transit services and fares Setting level of government funding and infrastructure investment
Transport Alliance Executive Body	Planning and coordination of public transit service levels, routes and timetables Issuing calls for transit service and awarding public transit service contracts Integrating fare structure and ticketing Distributing fare revenues and government subsidies among public transit firms Marketing and public relations Setting and monitoring service quality standards Long-term planning and coordination of public transit infrastructure projects
Public Transit Operators	Running public transit services Collecting fare revenue Maintaining vehicles, stations and rights-of-way Implementing infrastructure projects

74 Martha Koch and Gregory L. Newmark, "Legislating Transit 'Coopetition': Privatization and Planning Devolution in Germany," *Transportation Research Record*, Volume 2543, Issue 1, pp. 45-51, January 2016, <https://journals.sagepub.com/doi/10.3141/2543-05>.

75 *Verkehrsverbund* is singular, while *Verkehrsverbunde* is plural.

The RMV is an association backed by a strong mandate to use transportation to support environmental and economic goals. Because it is a voluntary association, a significant amount of its power is also informal, often generated through softer powers such as championing and negotiating by the organization's executive as well as by generating outcomes that show why it's worthwhile to participate.

London⁷⁶

London is a city-region with 33 independent local boroughs, all surrounded by a greenbelt to limit sprawl. By the turn of the 21st century, London's public transit system was suffering from decades of disinvestment, and many saw the public transit system as difficult, expensive and dilapidated. At the same time, the demand for access to the city from people living on the other side of the greenbelt was growing. In 1999, the Greater London Authority Act established a single Mayor of London. Transport for London (TfL) is the largest of four departments under the mayor's authority; it has the biggest budget and is one of the primary ways in which the mayor can influence the strategic direction of the city, particularly on matters of air quality, health and the economy.

In London, people can use any of the city's trains, buses and shared bicycles for the same fare and pay with the same farecard. Prices are set by time of day and the extent of travel across zones. An accumulator pass rewards people for taking transit multiple times per day and caps the amount that people have to pay, making transit the affordable and default choice. TfL sets service frequency standards and standards for access (e.g., all Londoners should be within 800 meters of a bus stop with service every 10 minutes). TfL's wayfinding program, Legible London, has become a global model for providing integrated customer information at all points in a passenger's journey. Overall, TfL is credited with bringing back public transit in London, reducing congestion and improving sustainable transportation.

Despite this success, TfL has relatively limited direct control over transit service. The mayor, through TfL, has complete control over fares. However, TfL only owns 3% of the road network, requiring a significant amount of coordination and negotiation with the local boroughs for the implementation of a bicycle strategy. Other than the London Underground (Tube), it controls very little of the railway network, such as the London Overground – the suburban railways that serve London),⁷⁷ which are operated by national franchises.

TfL receives very little government subsidy. It gets funding for capital projects from the national government, but until COVID-19, it received no operating funding from the national government.⁷⁸ As a result, TfL works creatively to monetize all of its assets into non-core business lines, which include (de)congestion pricing, monetizing station assets with retail and lease-backs, seeking paid sponsorships for its publicly owned bicycle-share fleet and developing a consulting branch.

TfL has the ability to influence land use. As part of the mayor's office, it provides input into the regional growth strategy. It also gives advice to the 33 boroughs on their land use plans in order to drive change in greenhouse gas emissions and meet public health targets and other goals. TfL provides design review on large projects and can recommend adjustments, such as reducing car parking. These powers are derived directly from the

⁷⁶ This summary was informed by an August 11, 2020 interview with Richard deCani, Global Planning Leader at Arup, and former Managing Director of Planning for TfL.

⁷⁷ Importantly, the European models evolved after a landmark directive from the European Union (EU Directive 91/440) in 1991, which mandated that the management of passenger rail operations be separated from the ownership and management of the tracks. Each country developed a different model to comply with this policy. For example, in the Netherlands, the national organization split into two entities with functional firewalls between them: NS Railways is a state-owned company that operates passenger rail service; ProRail is a state agency that owns and maintains railway infrastructure, makes long-range capital investment and does operational and service planning. In the UK, the government sold the railway infrastructure to private companies, and contracts were awarded to private companies to operate passenger service. This approach has largely been viewed as a failure because it has caused service instability and a lack of transparency.

⁷⁸ TfL, "TfL Publishes Draft Revised Budget for 2020/21 Designed to Keep London Moving and Support UK's Economic Recovery," July 2020, <https://tfl-newsroom.prgloo.com/news/tfl-press-release-tfl-publishes-draft-revised-budget-for-202021-designed-to-keep-london-moving-and-support-uks-economic-recovery>

mayor, who was granted land use authority to permit large development projects in 2008.⁷⁹

The board of TfL is chaired by the mayor. The Mayor's Transport Strategy is carried out by TfL through the management of a variety of public transit services, such as buses, the Tube, the ferry, trams and others. The board approves major strategic efforts, such as approving the TfL budget, business plan and policy. Other decisions are delegated to committees of the board and the executive.⁸⁰ The remaining board members represent a variety of industries and expertise and are not elected officials, and a significant amount of the mayor's authorities are executed through TfL. This means that TfL has a considerable amount of political capital.

Vancouver

Canada has a long tradition of establishing metropolitan-level organizations to help coordinate and steer investments in transportation and land use in order to combat suburban sprawl. However, from the late 1970s to the 1990s, Canadian values shifted toward greater local control, much like in California and the United States more broadly.⁸¹ As a result of Canada's regionalist roots, however, Canadian cities have had better ridership rates than American cities.⁸² In recent years, Canada has been returning to a regional approach to transit coordination.

TransLink is a regional public transportation authority established in 1998 for metropolitan Vancouver, which consists of 21 municipalities. In addition to serving as a regional coordinating agency, it also has primary responsibility for operating public transportation (buses, metro, commuter rail, ferries) and planning for cycling infrastructure, overseeing major roads and bridges and administering a transportation demand management program for the region. TransLink now manages 92% of public transit directly, with the remaining 8% contracted out in rural areas.⁸³

TransLink's origins are rooted in a history that is strikingly similar to that of the Bay Area. In the 1960s, the province of British Columbia purchased the private BC Electric Railway Company. In the 1990s, considerable growth created a need for coordinated land use and transportation as well as major transit expansions and service improvements. Despite this regional push, the British Columbia government devolved responsibility for roads to municipalities. However, tensions continued to grow, and in 1997 the Greater Vancouver Regional District (now Metro Vancouver Regional District) began working with the province to create a new regional transportation authority, which became TransLink.⁸⁴

When created in 1998, the board of TransLink was composed of elected mayors, but the governing strategy has shifted over time. Now, the organization is governed by both a Mayors' Council on Regional Transportation and the TransLink board of directors. An independent screening panel determines criteria for new board candidates and recruits candidates. The Mayors' Council then appoints board members from a shortlist prepared by the screening panel.⁸⁵

79 Mayor of London, "What Powers Does the Mayor Have for Planning Applications?," <https://www.london.gov.uk/what-we-do/planning/planning-applications-and-decisions/what-powers-does-mayor-have-planning-applications>

80 TfL, "Board Members," <https://tfl.gov.uk/corporate/about-tfl/how-we-work/corporate-governance/board-members#on-this-page-16>

81 Tamim Raad and Jeff Kenworthy, "The U.S. and Us: Canadian Cities Are Going the Way of Their U.S. Counterparts into Car-Dependent Sprawl," *Alternatives Journal*, Volume 24 (1), 1998.

82 National Transit Database, APTA, Q4 Ridership Report.

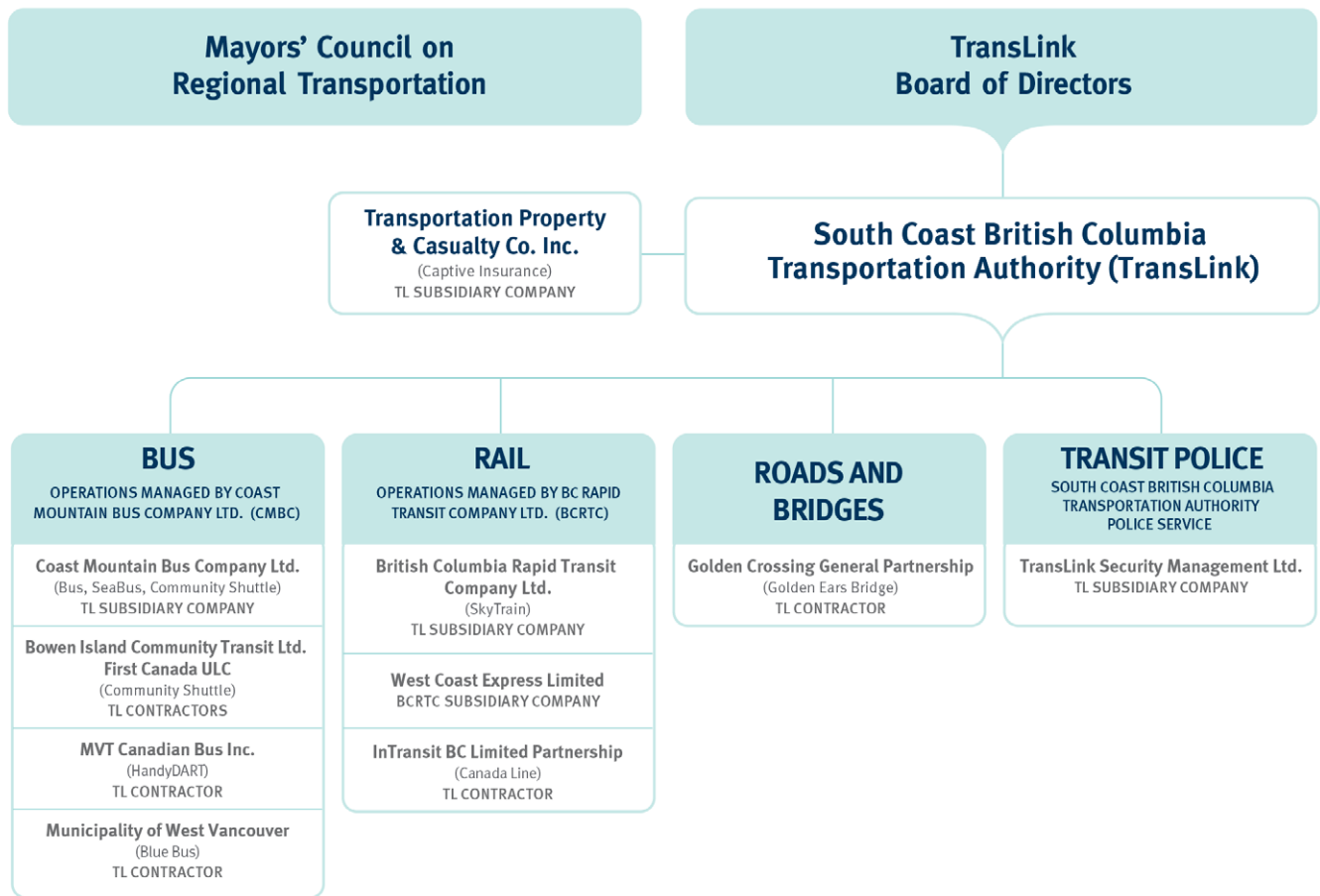
83 TransLink, *Board Governance Manual*, updated June 19, 2019.

84 TransLink, *The Road Less Traveled: TransLink's Improbable Journey from 1999 to 2008*, 2008, https://www.TransLink.ca/-/media/Documents/about_TransLink/corporate_overview/corporate_reports/history/TransLink_history_nov_2008.pdf?la=en&hash=52BE8EF88626314C8E20D082AE936CCE100B55C9

85 TransLink, "Governance Model," <https://www.TransLink.ca/About-Us/Governance-and-Board/Governance-Model.aspx>

FIGURE 8
Governance Structure for TransLink

TransLink combines independence and accountability: Detailed oversight comes from a board of directors that is composed of non-elected officials who bring relevant expertise, with up or down votes from a Mayor’s Council made up of elected officials.



The Mayors’ Council oversees longer-term strategy, investment plans, fare policy and customer satisfaction and provides an up-or-down vote on many of the policies and plans overseen by the TransLink board. Votes of each member of the Mayors’ Council are weighted in proportion to the population represented by that council member. The board is mostly composed of nonelected (professional) people and oversees more of the tactical and corporate issues, including preparing the investment plans and annual business plans and monitoring organizational performance against plans. Various committees, such as a Major Capital Projects Committee, focus on specific issues and are places for collaboration between nonelected board members and mayors.⁸⁶ Both the Mayors’ Council and the board approve capital planning decisions. Board representation is proportional to

86 Ibid.

population, with each director getting one vote for every 20,000 people who live within the area that appointed that member.⁸⁷

Metro Vancouver is a separate agency that prepares the regional growth strategy and environmental objectives that TransLink must incorporate into the regional transportation plan. Relative to Metrolinx (described below, in the Toronto section), TransLink has less direct power shape land use but uses funding to support land use changes. However, it can request zoning and land use changes from municipalities to support higher ridership around transit stations. There is a strong incentive for municipalities to adopt these zoning changes because they are less likely to receive further transit investment if they do not. Additionally, each municipality within the metropolitan area must develop a community plan and zoning that is aligned with the regional plan, though this has caused friction and there are few tools for implementation.⁸⁸

In 2016, TransLink launched a comprehensive fare review process with the goal of adopting a new approach to fares. Previously, it had operated on a three-zone system. The comprehensive fare review recommended eliminating zones and shifting to pricing by distance for rail; using a flat fare for buses, SkyTrain and ferries; expanding discount programs; and expanding off-peak discounts and rewards.⁸⁹

TransLink is funded by a mix of formula funds (i.e., funds that are distributed based on a consistent formula, for example using service area population, transit ridership or other relevant statistics) primarily from the province, as well as through fuel taxes and property taxes. Funds for transit operations come from fares, fuel taxes and property taxes.

New capital investments are rooted in the organization's long-range strategy and developed through business cases, which are comprehensive, evidence-based assessments of a project's costs, benefits, risks and impacts. Major policy initiatives (such as fare integration) and any project over \$50 million require public consultation, including in-person meetings and online engagement.

TransLink offers a model for addressing growing suburbanization and interregional coordination. If the nearby municipalities choose to opt in to having TransLink as their transit operator, TransLink is authorized to expand its district, which would bring another half-million people within the jurisdiction.

TransLink is widely regarded as *the* major success story for transit integration in North America. Year after year, it has been able to increase ridership, make needed investments and improve system performance. For instance, in 2018, TransLink built four new bus rapid transit lines and has hit new ridership records year over year,⁹⁰ particularly in recent years as U.S. cities saw ridership drop.

Key Takeaways and Additional Considerations:

- A two-tiered governance structure, including both local elected officials and a more professional independent board, provides a high level of both independence and accountability. Strong ties to the provincial government further support accountability.
- A governance structure can evolve over time to align with the region's evolving geography and to respond to transit coordination needs.
- TransLink has been successful at fare integration in large part because of new revenue sources and full financial control.

87 Metro Vancouver, "Board Members," <http://www.metrovancouver.org/boards/membership/board-members/Pages/default.aspx>

88 See note 80.

89 TransLink, "Transit Fare Review: Final Recommendations," July 2018, <https://www.TransLink.ca/Plans-and-Projects/Transit-Fare-Review.aspx>

90 TransLink, "A Record Breaking 40 Million Boardings on Public Transit in October in Metro Vancouver!" The Buzzer, November 21, 2018, <https://buzzer.TransLink.ca/2018/11/a-record-breaking-40-million-boardings-on-public-transit-in-october-in-metro-vancouver/>

- Though TransLink does not have direct land use control, Canada has a much stronger grounding in collectivism across all policy areas, which makes land use and transportation coordination somewhat easier than in the Bay Area.

Toronto

Metrolinx, an agency of the provincial government of Ontario, Canada, was created in 2006 to integrate and coordinate all modes of transportation for the Greater Toronto and Hamilton Area. In 2009, the Ontario government merged GO Transit, which runs rail and buses, with Metrolinx. This means Metrolinx is both an operator and the transit coordinator, providing strategic planning and integration efforts for nine other operators such as the Toronto Transit Commission (which runs buses, subways and light rail in Toronto).

Board members are appointed by the province and do not otherwise serve as elected officials. The fact that they are nonelected provides a high degree of institutional independence and professional expertise but distances the agency from the public and offers less accountability. To correct for that, Metrolinx seeks public input on its policies and projects.

Metrolinx is responsible for creating the region's long-range multimodal transportation plan and an investment strategy for implementation. In addition, all provincial capital funds for transit flow through Metrolinx. Its lead role on project delivery and capital funding gives it more leverage to promote coordination. Metrolinx requires projects to create business cases to ensure that transit investments are aligned with the agency's overall objectives. Importantly, multiple business cases are prepared throughout a project's life cycle; an initial feasibility case outlines benefits and costs while a subsequent project deliverability and operations case sets out a clear governance arrangement, risk mitigation plan and operations and management plan.⁹¹

Metrolinx manages the farecard Presto, while each transit agency is responsible for setting its own fares. Metrolinx began a fare integration pilot program in 2015, but the program lacked a dedicated source of funding and was canceled because of each agency's concerns over lost revenue. In 2017, Metrolinx completed a business case for fare integration that recommended moving toward a distance-based fare system and transfer rebates across all operators. To implement the changes, Metrolinx is using several pilots and taking a step-by-step approach, including fare discounts and reducing the base fare for GO Transit, supported with funding from the province.⁹² Metrolinx's ability to deliver on this fare integration effort was, in part, related to its position as a neutral actor; it was not perceived as having a financial interest in certain fare policy outcomes because it was not one of the operating agencies.

Additionally, Toronto recently implemented a more unified wayfinding scheme for transit in the region. This system does not replace operator logos but creates a visually consistent and mode-neutral symbol for the region's transit network.⁹³

Metrolinx has some authority to redevelop land near stations, including buying, leasing and selling land and entering into commercial agreements and eminent domain (though this is rarely used). The Province of Ontario

91 Metrolinx, *Business Case Manual Volume 2: Guidance*, April 2019, <http://www.metrolinx.com/en/regionalplanning/projectevaluation/benefitscases/Metrolinx-Business-Case-Guidance-Volume-2.pdf>

92 Metrolinx, "GTHA Fare Integration Update," Memo to the Board of Directors, April 26, 2018, http://www.metrolinx.com/en/docs/pdf/board_agenda/20180426/20180426_BoardMtg_Fare_Integration_EN.pdf

93 Metrolinx, "Signs of Our Time - New (T)ransit Wayfinding Identifier Hits the Streets," February 3, 2020, <https://blog.metrolinx.com/2020/02/03/signs-of-our-time-new-transit-wayfinding-identifier-hits-the-streets/>

prepares the long-range growth strategy and develops density targets for people and jobs for major transit station areas.⁹⁴

Key Takeaways and Additional Considerations:

- It's difficult to pursue fare integration without outside, dedicated sources of funding to mitigate near-term potential revenue losses.
- Metrolinx's strength in requiring business cases for major capital projects is an effective model for adding objectivity and oversight to investment decisions.
- To some degree, having a coordinator that is also the largest operator can create some mistrust among other operators, who could perceive a conflict of interest in fare integration, system scheduling and alignment.

⁹⁴ City of Toronto, "2018 Official Plan – Growth Management Strategy," <https://www.toronto.ca/city-government/council/2018-council-issue-notes/official-plan-growth-management-strategy/>

FIGURE 10
SFMTA's COVID-19 Service
Map

SFMTA's much-reduced core service plan (effective June 13, 2020) shows the high-priority bus routes at 10-minute frequencies and no Muni Metro rail service.



SFMTA has also worked to diversify the transportation network in collaboration with the City of San Francisco and the San Francisco County Transportation Authority (SFCTA), quickly implementing a Slow Streets program and advocating for transit priority and other congestion management tools that can help provide more service for less cost (service productivity). SFMTA estimates that it has been able to provide 10% more service for the same cost simply because buses are not stuck behind cars on congested roadways.⁹⁵ SFCTA expanded its guaranteed ride home program for essential workers who lost transit access due to reduced routes or reduced service frequency. In summary, SFMTA worked with other agencies to maintain a core frequent transit network and maximize limited resources in the city and county in collaboration with partners, offering a model that could be adapted region-wide.

In an emergency, the transit coordinator should:

- **Coordinate changes in service.** Changes should focus on serving the most transit-dependent populations and maximize access cost-effectively by providing frequent service on priority “backbone” routes and feeder routes and filling gaps with other modes of transportation.
- **Coordinate the restoration of coverage.** It may be inappropriate to bring back all transit service that was reduced due to the pandemic. Some low ridership lines will need to be restored in order to

⁹⁵ From a presentation with Dan Howard, SFMTA, on June 18, 2020 to SPUR's Urban Infrastructure Council.

provide broader access to the core rapid transit network, but spreading out service over too many lines could strain budgets in a manner that requires unacceptably low frequencies.

→ **Increase interagency coordination, either through legislative changes or direct coordination.**

Greater collaboration could be achieved by permitting agencies to carry passengers in other districts, allowing one agency to procure personal protective equipment and industrial cleaning for the other agencies, developing unified public health messaging and policies and integrating “back of house” functions for cost efficiencies.

- **Coordinate fare policies and fare collection.** In the three months after shelter-in-place began, bus operators stopped collecting fares to reduce interactions between riders and operators, though rail operators did not. As the economy begins to reopen, bus operators are facing “crowding” (under social distance requirements) and have to leave some riders behind, while there may be unused space on train routes that could serve the same trip. To better balance the passenger load and provide service for all, governments could use emergency funding to allow agencies to honor free or reduced fares so that riders can have the option to take either buses or trains.

Short-term decisions can shape the longer-term strategy for service design for the region’s transit network. Many of the strategies deployed in this emergency could help ensure that the region has a core frequent and rapid transit network that provides service to people who need it most.



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