FROM THE CEO

"In the middle of difficulty lies opportunity."

- Albert Einstein

The California High-Speed Rail Authority (Authority) submitted its 2020 Business Plan to the Legislature on April 12, 2021.

That's right; the 2020 Business Plan was submitted a full year after its original due date—another impact of the COVID-19 global pandemic—which has continued to affect our program. Over the last two years, COVID-19 has impacted construction, caused us to extend public comment periods in our environmental review process, and to hold virtual board meetings, with our first in-person board meeting in two years scheduled for April 2022. More than 90 percent of our staff are still teleworking, at least part-time. COVID-19 has impacted how we function, but it has not stopped us from advancing the nation's first electrified highspeed rail project right here in California.

In fact, no state is advancing high-speed rail at the pace that California is. California is leading again, building world-class infrastructure that will foster economic prosperity and opportunity, spur job growth and combat climate change. That is something that should not be lost on policymakers—and the opportunity to expand that leadership is upon us.

The 2022 Business Plan is an update on what has occurred over the last year affecting our program—progress and opportunities—and management's recommendations to our Board of Directors on how to manage those issues and move forward transparently.

Program Progress

There are three key areas where the Authority is making meaningful progress—construction activities, right-of-way acquisitions and environmental review.

Construction

In the last three years, we have advanced design from 30% to nearly 100%, increased the number of structures that are either under construction or completed and increased the miles of guideway opened for work. Daily construction jobs have tripled between 2018 and today. We are making meaningful progress to complete the first 119 miles of the system, the largest stretch of rail construction anywhere in the country.

We have also been very transparent about the challenges associated with executing construction contracts before the scope was fully defined and pre-construction activities were completed. Between 2015 and 2018, after the contracts were awarded, a number of scope changes were made, some of which were driven by litigation. Other changes were made to address third-party permitting and approval agencies' requirements and to respond to concerns of cities and counties, utilities, freight railroads and irrigation districts.

We have resolved all major scope issues on Construction Package 4 (CP-4), and we estimate it will be substantially completed by March 2023. We report the schedule and budget progress on CP-4 each month to our Finance and Audit Committee. We are now on the verge of resolving remaining scope changes through the execution of change orders on Construction Packages 1 and 2-3. As we have done with CP-4, settling these issues with the contractors will allow us to resolve the scope and the costs, reset our contractors' schedules and manage the contracts toward delivery against a firm schedule and budget. The first step is to

account for the full scope, which we are doing now and expect to resolve fully this Summer. Further updates on Central Valley construction can be found in Chapter 2.

Right-of-Way

Right-of-way acquisition has been a long-reported challenge for the Authority. This, too, is largely the byproduct of entering construction contracts out of sequence (i.e., before the right of way is more fully in hand). Early in 2021, we took steps to improve our performance in this area, and the results have been promising.

Specifically, in April, we brought in new leadership to head our right-of-way division; we adopted a more conservative and achievable acquisition schedule; we established 30-, 60- and 90-day goals; we improved the line of communication between the field and the right-of-way division; and we began mapping and tracking right-of-way status more comprehensively.

The results of these changes have been outstanding. Parcel acquisitions are being completed on a steadier pace each month.

The division is now delivering parcels ahead of the revised schedule. As of this writing, 2,077 parcels have been delivered to the construction contractors. For the first time in the program's history, we have met the 90% threshold for number of parcels delivered versus total needed.

Environmental Review

For five years, between 2014 and 2019, the Authority did not certify an environmental document beyond that required to begin construction on the 119-mile segment in the Central Valley. Since 2018, we have been driving to complete the environmental work for the entire 500-mile system connecting San Francisco

to Los Angeles/Anaheim. Completing this work is necessary for two fundamental reasons: (1) it is a requirement of our federal funding grant; and (2) it allows us to define the entire Phase 1 system, advance design, reduce risks, account for all necessary preconstruction work, refine costs, and mitigate impacts, providing important clarity for the communities through which the system travels.

Today, we have environmentally cleared approximately 380 miles, and by August 2022 the Authority is intending to have cleared about 420 miles of the 500-mile Phase 1 system. Achieving these milestones is an essential step in the Authority's strategy to advance the entire statewide program and be competitive for new federal funding opportunities, further described below.

Completing environmental reviews involves years of analysis, design and interaction with communities, federal and state regulatory agencies, private entities and local governments. Through this process, we identify project impacts that require mitigation—environmental justice community impacts, local government impacts, natural resources impacts, private property impacts and others. These impacts require mitigation to gain community, resource agency, and public support for the project. These mitigations sometimes require design changes or other community investments or project changes to offset the impacts. They come with a cost.

We commit to these mitigations, and their associated costs, in alignment with our Board's policy to improve the communities through which our system travels. The Authority's policy and practice is to complete the environmental work and then to update the capital cost estimates once that work is done. The costs are affected

because we have better defined the project scope with community and stakeholder input. In the process, the project has gained more favor in the communities it impacts because we have committed to certain mitigations that are important to them. In Chapter 5, we detail some specific mitigations we have made in recently cleared sections and update our cost estimates accordingly.

We are not alone among megaprojects whose costs have changed as project definition becomes clearer. This phenomenon is something I have seen on other megaprojects. For example, before any work was done on replacing the Bay Bridge, the estimate to replace it was about \$1.5 billion. It ended up costing \$5.6 billion to get it done. Similarly, the massive Central Artery/Tunnel Project in Boston was initially estimated to cost \$2.8 billion before any design or environmental work was done. That project is now complete, Bostonians are happy, but it cost \$24 billion. This illustrates the challenge of providing cost estimates for a complex megaproject before enough environmental reviews are complete or design work is well-advanced.

Opportunities

The most significant development since the 2020 Business Plan is the reemergence of the federal government as a funding partner to build the right kind of transportation infrastructure in this era of climate change. The end of 2021 saw the enactment of the "Bipartisan Infrastructure Law," and this year, Congress will potentially consider the "Build Back Better" bill, both of which provide billions of dollars in federal funding for passenger rail projects, including high-speed rail. In addition, in the first year of the Biden Administration, the Authority received nearly a billion dollars back to the program that the previous administration

proposed to rescind, and in November 2021, we received a federal RAISE grant of \$24 million to advance construction in the City of Wasco.

"High-speed rail is not a nice-to-have. It's a must-have."

Nuria Fernandez, Federal Transit
 Administration Administrator

I am pleased to report that over the last few months, we've had constructive engagement with the USDOT and the Federal Railroad Administration to rebuild this important relationship – updating them on the status of our program, discussing the challenges we face and how we are addressing them, and our plans to move the whole program forward. We've also been highly focused on analyzing the federal funding programs that could provide new dollars to do new things and expand the system. As described in Chapter 3, we have developed a federal funding strategy that aligns with federal policy goals; we have already submitted two additional grant applications and are preparing for others.

Coupled with this new federal funding, Governor Newsom has proposed in his FY 2022-23
Budget a \$15 billion program of investments in transportation infrastructure statewide, including investments in high-speed rail, local and regional transit projects, bicycle, pedestrian and highway safety projects, new grade separations, and investments in the state's trade corridors to relieve long-festering supply chain problems. At the Authority, we see a tremendous opportunity for the state to develop a federal-state funding program that will enable us to:

- Deliver a two-track initial operating segment connecting Merced, Fresno and Bakersfield;
- Invest statewide to advance engineering and design work as every project section is environmentally cleared;
- Make targeted statewide investments in shared corridors that provide immediate benefits to existing operators and prepare these corridors for statewide high-speed rail service; and
- Advance a longer-term funding strategy to extend high-speed rail beyond the Central Valley as soon as possible.

Forging an Agreement on Proposition 1A Funds

The Governor's more robust transportation investment budget proposal this year includes the appropriation of the remaining \$4.2 billion in Proposition 1A bond funds to the Authority for purposes of completing our construction work in the Central Valley. As discussed in Chapter 3, the bond funds are the appropriate funds to use to complete that work because they are already approved for that purpose and using them there would allow us to preserve more flexible Cap-and-Trade funds to leverage federal funding for other program purposes and to invest more nimbly as the program progresses and opportunities to match federal funds arise.

Although there has been a lot of focus on the differences between our approach to advancing high-speed rail in California and that proposed by some in the Legislature, there should be no question that the availability of new federal and state funding presents an opportunity to close that divide and agree on investments that allow statewide high-speed rail to move forward in tandem with other high-priority regional projects. We see areas of agreement with some of the ideas and concepts promoted by legislators. For example:

- The 119-mile segment in the Valley now under construction is not an ideal operating segment. Extending past the orchards and into the cities of the Central Valley—Merced, Fresno and Bakersfield—where connections will be made to current and future operators, makes the most sense;
- Developing a new multimodal station in downtown Merced (rather than two) is the best way to maximize rail/transit connectivity;
- Advanced design work should commence in every segment where the environmental clearances are completed, including in Northern and Southern California;
- Proposed investment of General Fund dollars can assist with projects statewide, including projects with mutual or joint benefits for local or regional projects and the state-sponsored highspeed rail project;
- In the short-term, right-of-way acquisition should primarily be focused on the Central Valley segment connecting Merced, Fresno and Bakersfield; and
- The Link Union Station project should move forward as expeditiously as possible.

Our proposal to advance the project is consistent with these priorities. The fundamental disagreement appears to come down to the question of when to electrify the assets we are constructing. The Authority proposes to electrify the system for true high-speed rail service as soon as possible along the corridor connecting the cities of the Central Valley. Our peer-reviewed analysis shows this approach provides the fastest travel time, the highest ridership, and the most environmental and revenue benefits at the soonest possible time.

This approach also acknowledges that we have a constrained budget—enough to get a high-speed rail corridor started in the Central Valley, but not yet enough to extend it to the Bay Area and Southern California. California's high-speed rail program is unique in its magnitude and its complexity for the United States, and we are funding and implementing it in the same way that high-speed rail systems have been developed throughout the world. Specifically, we have a clear, long-term vision and a long-term plan for implementing that vision. We are advancing it through a series of phases allowing for incremental extensions and improvements. That is the strategy we laid out in our 2012 Business Plan and that we continue to follow. We recognize that, given its magnitude, all the funds will not be available in one single installment and that we have to build the system sequentially, demonstrating progress and value incrementally. For us, the Merced to Bakersfield line will be the first operating segment of electrified high-speed rail in California, but certainly not the last. As we advance corridors outside of the Central

Valley and pursue funding for project expansion, a useful operating segment—the first in the nation—will be providing benefits to Californians who live and travel through the Valley where construction began.

Our mutual goals are to build a modern, sustainable transportation infrastructure and create an equitable clean energy future in California. The Authority looks forward to working with all those that share a genuine interest in developing an electrified high-speed rail system connecting San Francisco and Los Angeles/Anaheim through the communities of the Central Valley, just as the voters approved. Recent polling indicates that the majority of Californians support this vision for clean, fast high-speed rail in this state. Let's seize this moment and get on with the work ahead.

Brian P. Kelly
Chief Executive Officer