



# Memorandum

**TO:** TRANSPORTATION AND ENVIRONMENT COMMITTEE      **FROM:** John Ristow  
Mukesh (Mookie) Patel

**SUBJECT:** DIRIDON STATION TO AIRPORT CONNECTOR STATUS REPORT      **DATE:** 5/13/24

---

Approved  Date **5/24/24**

---

**COUNCIL DISTRICT: 6**

## RECOMMENDATION

Accept a status report on the initial insight into the feasibility study under development for the Diridon Station to Airport Connector project.

## BACKGROUND

The San José Diridon Station to Airport Connector (Connector) intends to provide a quick, reliable transit system connecting Diridon Station and San José Mineta International Airport. The Connector will use automated electric transit vehicles on a new dedicated guideway.

The City Council approved an ordinance on April 19, 2022, allowing alternative project delivery methods for procurement and contracts. The ordinance allows for a pre-development agreement (Agreement) for project development and Design-Build-Finance-Operate-Maintain (DBFOM) for construction. The City issued a request for proposals in May 2022 with a multi-step Agreement. On April 18, 2023, City Council selected the San José Connection Partners (Connection Partners) and authorized funding for Phase 1 of the Agreement. On October 2023, the City and Connection Partners finalized the Agreement, and the City issued a Notice to Proceed on Agreement Phase 1. The City and Connection Partners have worked closely to advance Phase 1 since then. On December 12, 2023, City Council approved an amendment to the Diridon to Airport Connector's Pre-Development Agreement for Intra-Terminal Airport Connection Option, extending the scope of the Connector project from the Airport's Terminal B to its long-term parking area. On January 9, 2024, City Council directed staff to negotiate incorporating the Stevens Creek Corridor Study into Phase 2 of the Diridon Station to Airport Connector Project. On May 06, 2024 the Department of Transportation issued a information memorandum outlining the Diridon To Airport Connector project's funding strategy and on-going efforts by the department to secure state and federal grants.

## **ANALYSIS**

The project team has made significant progress since the start of Phase 1 last year. The Phase 1 Feasibility Studies deliverables cover three areas:

1. Design and Conceptual Engineering
2. Feasibility Validation Report
3. Outreach and Coordination

### **Design and Conceptual Design**

In February of this year, the Connection Partners achieved a significant milestone by delivering a complete set of conceptual design plans (Attachment A). The conceptual design plans provide the basis for most estimating work that feeds into the Feasibility Validation Report. Until now, all planning studies of a potential connector have been based on unit costs and high-level alignments, aka “lines on a map.” The Feasibility Alignment’s 10% conceptual design is the first set of drawings that are being used for:

- Cost estimates: materials, construction, utility relocation, and property acquisition,
- Operating times and operating cost estimates, and
- Ridership and revenue forecasting.

The Feasibility Alignment is not a final proposed project alignment. Rather, it is an illustrative alignment used to create, through projections and assumptions, the information needed for the Feasibility Validation Report. Further, its development has explored and revealed multiple alignment issues and tradeoffs. Development of the Feasibility Alignment has led to needed inter-agency conversations that have assisted with developing the conceptual cost estimates and gathering regulatory processes this project will need to proceed through to succeed. These will inform the alignment alternatives analysis and environmental review in Agreement Phase 2.

### **Draft Feasibility Validation Report**

In late March 2024, the Connection Partners delivered the draft Feasibility Validation Report. The draft report uses the conceptual design plans to analyze in-depth aspects of the proposed project. The report contains four volumes covering:

- Volume 1 – Technical Feasibility
- Volume 2 – Commercial Structure
- Volume 3 – Financial Feasibility
- Volume 4 – Benefit-Cost Analysis

### **Technical Feasibility**

Staff is pleased with progress on the technology intended for the project. While further technological development milestones lie ahead, the progress mostly aligns with expectations. The Connection Partners proposal submitted in late 2022 used the Glydways transit system. Glydways had several first-generation “alpha” level prototype vehicles. Since then, Glydways has made several important advances to include:

- Completing user testing of alpha vehicles;

- Design and construction of “beta” prototype vehicles with updated passenger cabins; and
- Start of dynamic testing of beta 1 vehicles and traffic control system.

While significant progress has been made, the technology development timeline has multiple milestones remaining to reach service readiness. Areas of focus where further progress is needed by the final report include:

- New Glydways Development Facility – Plans for the build out of the facility needed to prove vehicle and traffic management performance.
- Beta Vehicles – Initial beta vehicles are built, but the testing schedule has slipped. Completing and reporting dynamic testing results such as operational headways are critical to progressing technology readiness by end of Phase 1.
- California Public Utility Commission (CPUC) approval process – Greater clarity is needed on the approval process including the Glydways Safety Certification Plan. City Connection Partners coordination needs to provide a clear roadmap for CPUC’s approval in line with the project timeline.

### **Commercial Structure**

Volume 2 of the draft feasibility study lays out the organizational structure of the Connection Partners. This includes company ownership and governance, risk allocation, and risk management. The proposed commercial structure is a single-purpose project company owned by Plenary Americas US Holdings Inc., consistent with their original proposal. The same entity is responsible from pre-development through the system operations phase of the project. City staff appreciate the clarity and simplicity of the structure and having the same entity throughout the project lifecycle. The allocation of project risks between the City and the Connection Partners is an important structure component. The City will evaluate and negotiate the allocation during the Agreement, and final decisions will be made in Phase 3.

### **Financial Feasibility**

Volume 3 of the draft feasibility study examines the estimates of capital and operating cost, ridership, and fare revenue to evaluate if the Connector project can be delivered according to cost goals and operated commercially. The volume shows the overall financial feasibility of constructing and operating the Diridon to Terminal B, base system, or the full system, including intra-airport connection on a revenue-risk basis. This includes operations plus maintenance capital expenditures being cash flow positive. The construction and operational cost estimating methodology aligns with industry standards for early-stage projects.

Specifics of the proposal in the draft brought up several aspects that require additional examination and several revisions:

- Estimates of Design-Build Costs – while costs are in line with expectations and construction inflation, additional review of the detailed estimates is necessary before finalizing the report.
- Availability Payments – the initially proposed amounts and structure of payments in the draft plan do not fit the City’s goals, nor are they within sustainable budgetary constraints. City staff is working with the Connection Partners on clarifying the

assumptions and calculations behind the proposal. Further, we are developing additional scenarios for project funding that use lower availability payments.

- Phase 2 Costs – Significant cost reductions are likely needed for the Phase 2 of the Agreement. Project development grant funding is challenging. City Staff and Connection Partners are developing in the final report multiple scenarios for Phase 2 scope and schedule, depending on funding availability.
- Ridership and Revenue – Additional information and follow up work is needed regarding assumptions and estimates (see Airport-Specific Ridership and Revenue below).
- Customer Experience – In-depth work is ongoing regarding potential inter-terminal operations and the tradeoff between different aspects of the customer experience influenced by system design. These tradeoffs include walk distance, wait time, safety concerns, and emergency contingencies.

#### Airport-Specific Ridership and Revenue

Recognizing the shift in market dynamics underway coming out of the COVID-19 Pandemic, Airport and DOT staff have been collaborating on challenging many of the assumptions included in the ridership study and financial feasibility of the project. While the project team has used data derived from the 2020 Airport Master Plan and 2022/23 FAA Terminal Area Forecast to develop anticipated ridership and financial feasibility components, the basis for future traffic and financial projections has changed and continues evolving as we learn more about the post-Pandemic environment in Silicon Valley. Recent economic reports, such as the *2024 Silicon Valley Index* prepared by Joint venture Silicon Valley, reflect continued uncertainty about the growth rate of Silicon Valley's population and economy. This emerging data has prompted refining and validating estimates for future Airport enplanements and project ridership. Staff has asked the Connection Partners to do additional sensitivity testing to "stress test" the project's financial feasibility under lower growth projections. Additionally, staff has significant questions about several assumptions used in the analysis and the potential financial risk to the City. The Airport and DOT will continue to collaborate with the Connection Partners to ensure this analysis and updated assumptions are included in the final feasibility report before moving to Agreement Phase 2.

#### **Benefit - Cost Analysis**

Volume 4 of the draft report provides important information on the system's Benefit-Cost Analysis for both Core and Additional Benefits. It also includes sections on ridership estimate inputs, methodology, and sensitivity testing across several scenarios.

The Benefit - Cost Analysis requires thorough examination. Additional clarity is needed on "Core" and "Additional" benefits. Full documentation of benefit calculations, including quantities upon which the calculation of costs and benefits are based. City staff and Connection Partners are exploring refinement or additions to scenarios in conjunction with ridership estimates.

#### Outreach and Coordination

The City has undertaken extensive inter-agency and stakeholder meetings to gather information and explore potential property and permitting issues with potential alignments. In September

May 13, 2024

**Subject: Diridon Station to Airport Connector Status Report**

Page 5 of 5

2023, the City held a community meeting at the Rose Garden Branch Library to receive information from area residents ahead of the conceptual design work. Public agency coordination has included Santa Clara Valley Water, Santa Clara Valley Transportation Authority, Caltrans, Caltrain, Federal Aviation Administration, and the Metropolitan Transportation Commission. Stakeholder outreach has included the Sharks Sports and Entertainment, San José Downtown Association, Guadalupe River Park Conservancy, and Google. These have informed project design work and future permitting efforts. The City will undertake a round of public outreach once the final Feasibility Validation Report is delivered later this month.

### **EVALUATION AND FOLLOW-UP**

The final Feasibility Validation Report is scheduled to be delivered in June. City Staff will review the final report and evaluate how it addresses the City's project goals and input from the draft report. Once that evaluation is complete the project will return to Council in late summer or early fall for a decision on whether to advance the Connector into Phase 2 of the Agreement.

### **COORDINATION**

This memorandum was coordinated with the City Attorney's Office.

/s/  
JOHN RISTOW  
Director of Transportation

/s/  
MUKESH PATEL  
Director of Aviation

For questions, please contact Brian Stanke, Transit Planning Manager, at [brian.stanke@sanjoseca.gov](mailto:brian.stanke@sanjoseca.gov) or (408) 795-1834.

### **ATTACHMENT**

Attachment A - SJC Airport Diridon Station Connector 10% Submittal: Conceptual Design