Swyft Cities - City of Irvine Great Park Detailed Engineering and Certification Strategy Proposal

December 2nd, 2024

PROJECT UNDERSTANDING

The City of Irvine is actively planning a Whoosh system to enhance connectivity within Great Park and key activity centers around the City of Irvine. Swyft Cities' "Whoosh" system presents a compelling opportunity to transform Great Park's transportation landscape, providing a forward-thinking and effective means of connecting residents and visitors with essential destinations. With a focus on speed, efficiency, and convenience, our transportation solution offers a revolutionary approach to navigating around Great Park and the places of interest seamlessly. This proposal outlines a Detailed Engineering and Certification Strategy for implementing the Whoosh system.

SCOPE OUTLINE

This scope proposal outlines an accelerated 3-month Detailed Engineering and Certification Strategy to advance the Whoosh system's implementation in Irvine. Building on the established alignment, and supported by the TrakEdit simulation and ridership analysis, this scope will deliver design and constructability insights, optimizing infrastructure spacing, tower curvature configurations, and regulatory compliance essential for project design and delivery to catch-up and move forward alongside the rest of the Great Park program.

Project Intent and Objectives

This scope is designed to align critical project components with the project's accelerated timeline, providing essential design and constructability insights tailored to the Whoosh system. Swyft Cities will conduct these tasks concurrently, leveraging our expertise in transit system planning and engineering to guide each phase. We will work closely with key partners to provide targeted support, ensuring smooth coordination and contributing to a reliable, well-integrated system solution for the City of Irvine.

Scope Sections:

1. Program Management

a. Swyft Cities will maintain active engagement with city staff, the master planning team, and other key stakeholders to ensure alignment with program goals for the Great Park system.
b. Swyft Cities will continue to conduct bi-weekly meetings with city staff and planning partners. These sessions will focus on system integration updates, addressing project needs, fielding questions, and capturing feedback to facilitate smooth progress.
c. The Swyft Cities team will provide an in-person presence once a month, which will include site walks and in-person presentations to offer hands-on support and direct collaboration with stakeholders.
d. Swyft Cities will attend additional ad-hoc meetings as necessary to maintain responsiveness to emerging project needs and ensure ongoing coordination across all teams involved.

2. Great Park - Final Analysis and Detailed Design
    a. Using the approved alignment and layout for Phase 1 of the Whoosh system at Great Park, Swyft Cities will conduct a foundational design phase to prepare infrastructure elements for further engineering. This scope section focuses on preliminary design specifications and requirements. Key activities include:
        i. Ridership Analysis and Simulation: Swyft Cities and its sub-contracted partners will update the City of Irvine's selected consultant and provide a clean hand off of the current ridership modeling. Swyft Cities will continue to support the ridership modeling development but shall not be responsible for the new model, Swyft Cities will conduct a maximum of two (2) TrakEdit simulations for any of the underlying data that was used to develop the current model. Following the output or completion of the ridership consultant's work to report out the system functionality and related analyses in a final report.
        ii. Preliminary Engineering Support for Tower Spacing: In collaboration with SWA Group and the engineer of record, Swyft Cities will receive the site survey outlining topographic conditions in order to finalize the alignment spacing for support towers, ensuring alignment with project constraints and initial engineering standards. This will establish a basis for the final placement and spacing requirements in future design phases.
        iii. Preliminary Engineering for Tower Foundation: Swyft Cities will review tower components, including curves and intersections, to inform future design phases by defining initial structural requirements and spatial needs. An average or maximum (except for unique cases) foundation size shall be quantified for the City of Irvine's partners to utilize as a basic specification for tower foundations.
        iv. Station Sizing Assessment: Based on site and operational needs, Swyft Cities will work with the relevant planners and stakeholders to determine

the desired size of each station, ensuring functionality and efficiency remains for Whoosh. This process will utilize the ridership and passenger flow previously established and also look to integrate features that enhance usability and accessibility within the Great Park layout.

v. Coordination on Initial Station Design: In collaboration with SWA Group and the engineer of record, Swyft Cities will work to develop and support station design for two (2) standard station designs that align with the system's architectural vision and operational goals. This includes providing technical input and design requirements that will shape the design in alignment with the overall project scope.

vi. Maintenance Facility Site Selection and Requirements: Swyft Cities will work with City staff and the planning team to identify a suitable location for the maintenance facility, outlining site constraints and estimating preliminary requirements, such as square footage. This task will establish the initial framework for the facility's functional needs, with detailed design to follow in a future phase.

b. Exclusions:

i. Swyft Cities and its sub-contracted partners will not produce full design specifications, permit, or shop drawings as part of this scope. All models, assessments, and specifications developed are preliminary and will be transferred to the architect, engineer of record, or contractor for further engineering and permitting documentation.

3. Great Park - Certification Strategy

a. In collaboration with city staff and the master planning team, Swyft Cities will initiate the development of a certification strategy that supports the Whoosh system's implementation. Recognizing that this process will evolve as we gain further insights into the regulatory landscape.

i. Stakeholder Identification and Preliminary Engagement: Swyft Cities will work with city staff and the master planning team to identify relevant stakeholders and outline a preliminary timeline for certification milestones. Currently identified stakeholders include the California Public Utilities Commission (CPUC), Orange County Transportation Authority (OCTA), and Orange County Fire Authority (OCFA), Southern California Association of Governments (SCAG), Southern California Regional Rail Authority (SCRRA), and additional stakeholders that shall be identified as this task progresses.

ii. Certification Structure and Strategy: Drawing on Swyft Cities' understanding of transit deployment and certification processes, we will draft a framework to guide the regulatory and approval pathway, working with the City to include City milestones such as Council Approval and other approval steps. This will include an initial review of processes such as the California Environmental Quality Act (CEQA), APM 21-21 standards, and

ASCE B77.1 guidelines. As new information emerges, Swyft Cities will adjust the strategy to align with project needs and regulatory requirements.

iii. SCJ Alliance Support: To support this project's unique certification needs, Swyft Cities will engage SCJ Alliance as a specialized sub-consultant. With expertise in cableway certifications, SCJ Alliance will assist in interpreting applicable regulations, identifying essential compliance areas, and, where feasible, mitigating non-critical regulatory requirements. Their involvement will provide Swyft Cities with a resource for adapting to certification challenges as they arise.

b. Exclusions:
   i. Swyft Cities and its sub-consulted partners will only engage with external stakeholders under explicit authorization from the City of Irvine, ensuring that all engagements are aligned with project and city priorities.
   ii. SCJ Alliance support excludes in-person presence for SCJ Alliance, unless explicitly required by the City of Irvine in writing. This expense would be captured under their specific support line item.
   iii. This scope does not include public outreach activities.

FEE SCHEDULE - NOT TO EXCEED (NTE)

Task	Element	Cost	Schedule
Program Management		$24,000	12 weeks
Great Park Detailed Design and Engineering			12 weeks
	Ridership Analysis and Simulation	$24,000	
	Preliminary Engineering for Tower Spacing and Tower Foundation	$39,000	
	Station Sizing Assessment	$20,000	
	Coordination on Initial Station Design	$25,000	
	Maintenance Facility Site Selection and Requirements	$11,000	
Great Park Certification Strategy			12 weeks
	Stakeholder Identification and Preliminary Engagement	$15,000	
	Certification Structure and Strategy	$10,000	
	SCJ Alliance Support	$30,000	
	Total	**$198,000**	