Outline

• SURF! Project at 95% Design
• MST Transit Service Operations
• Traffic Signal Vs Roundabout Analysis
• Traffic Simulations
• Non-Viable Options
• Viable Long-Term Options
• Recommendation
SURF! PROJECT AT 95% DESIGN

- California
- Del Monte
- Sand City
- Seaside
- Playa

SURF! Busway
SURF! Project at 95% Design
MST Transit Service Operations - Existing

→ Direction of travel for Lines 17, 18, 20 (SURF!), 94, and JAZZ
MST SURF! Transit Operations – 95% Design
(New Traffic Signal at California/Playa)

→ Direction of travel for SURF! buses
Traffic Signal vs Roundabout Analysis
Frederik Venter, Kimley-Horn

- Weekend traffic counts provided by Sand City traffic engineer
- Planning horizon year is 2045
- Based on AMBAG Traffic Model
Four (4) Scenarios Analyzed

Scenario 1 - Existing Geometry

Scenario 2 - 95% Design

Scenario 3 - 95% Design + NBL (California)

Scenario 4 - Single-Lane RAB
Cumulative 2045 PM Peak Level of Service (LOS) Summary

- Scenario 1 - Existing Geometry
- Scenario 2 - 95% Design
- Scenario 3 - 95% Design + NBL (California)
- Scenario 4 - Single-Lane RAB

F = Exceeds Capacity
Cumulative 2045 AM Peak LOS Summary

Scenario 1 - Existing Geometry

Scenario 2 - 95% Design

Scenario 3 - 95% Design + NBL (California)

Scenario 4 - Single-Lane RAB

Note: Queues in AM less than PM
Cumulative 2045 Weekend Midday Peak LOS Summary

Scenario 1 - Existing Geometry

Scenario 2 - 95% Design

Scenario 3 - 95% Design + NBL (California)

Scenario 4 - Single-Lane RAB
Cumulative 2045 PM Peak Queueing Summary

Scenario 1 - Existing Geometry

Scenario 2 - 95% Design

Scenario 3 - 95% Design + NBL (California)

Scenario 4 - Single-Lane RAB

Red = Exceeds Capacity
Cumulative 2045 AM Peak Queueing Summary

Scenario 1 - Existing Geometry

Scenario 2 - 95% Design

Scenario 3 - 95% Design + NBL (California)

Scenario 4 - Single-Lane RAB

Red = Exceeds Capacity
Cumulative 2045 Weekend Midday Peak Queueing Summary

Scenario 1 - Existing Geometry

Scenario 2 - 95% Design

Scenario 3 - 95% Design + NBL (California)

Scenario 4 - Single-Lane RAB
Cumulative 2045 PM Peak vs. AM Peak Delay Summary Graph

- Scenario 1: Existing Geometry
- Scenario 2: 95% Design
- Scenario 3: 95% + NBL (California)
- Scenario 4: 1-Lane RAB

Delay (sec):
- Scenario 1: 50.5, 36.9, 39.4
- Scenario 2: 37.3, 37.8, 25.7
- Scenario 3: 37.9, 31.6, 26.1
- Scenario 4: >100 sec (Repeated for clarity)

Legend:
- 1. California/Playa
- 2. Del Monte/Playa
- Bus

Graph notes:
- PM PEAK: Delay summary comparison across scenarios.
- AM PEAK: Similar comparison for AM peak.
-Color codes: Blue, Orange, Gray

Key observations:
- Scenario 1 shows the highest delays across all times.
- Scenario 4 has the highest delays for AM peak.
- Scenario 3 shows the lowest delays in AM peak.

Additional notes:
- The graph visually represents the delay impact of different scenarios on peak times.
Cumulative 2045 PM Peak vs. Weekend Midday Peak Delay Summary Graph

- **Scenario 1**: Existing Geometry
- **Scenario 2**: 95% Design
- **Scenario 3**: 95% + NBL (California)
- **Scenario 4**: Single-Lane Roundabout

- **Delay (sec)**
  - 1. California/Playa
  - 2. Del Monte/Playa
  - Bus
  - >100 sec
Traffic Simulations
Scenario 1 - Existing Geometry
Scenario 2 - 95% Design
Scenario 3 - 95% Design + NBL (California)
Scenario 4 - Single-Lane RAB
## Summary

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Scenario 2</th>
<th>Scenario 3</th>
<th>Scenario 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Geometry</strong></td>
<td><strong>95% Design</strong></td>
<td><em><em>95% Design + NBL</em> (California)</em>*</td>
<td><strong>Single-Lane Roundabout</strong></td>
</tr>
<tr>
<td>SURF!</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sand City</td>
<td>No</td>
<td>Yes</td>
<td>Yes+*</td>
</tr>
<tr>
<td>Seaside</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- **Acceptable LOS Operations Compared to Existing Geometry**
- **Minimal Queueing at Both Intersections**
- **15 sec Time Savings at California/Playa vs. Scenario 2 (PM)**
- **5 Second Time Savings for Bus vs. Scenario 2 (PM)**

* NBL cannot be included in SURF! project due to Right-of-Way requirements – CEQA and NEPA.
NON-VIABLE OPTIONS

Start/end busway at Highway 1 southbound onramp and use existing intersection at California/Playa

Scenario 1 - Existing Geometry

Start/end busway at Highway 1 southbound onramp and use single-lane roundabout at California/Playa
Built by others

Scenario 4 - Single-Lane RAB
VIABLE LONG-TERM OPTIONS

Traffic signal at California/Playa for safe/efficient movement of transit vehicles

Scenario 2 - 95% Design

Scenario 3 - 95% Design + NBL (California)

Traffic signal at California/Playa for safe/efficient movement of transit vehicles
Recommendation:

1. Direct MST staff to continue planning the SURF! project (Scenario 2) with a traffic signal at California and Playa.

2. Encourage Sand City to support, plan, and construct Scenario 3 in tandem and coordination with MST and its contractors.
Schedule:
Letter from Sand City – does not change staff recommendation 
January – FTA Risk Assessment to review SURF! project readiness 
March – complete critical third-party agreements (permits) 
August – grant agreement for $22.1M in federal funding