On-Airport Bypass Roadway Alternatives

Airport Development Plan

San Diego International Airport

March 10, 2014

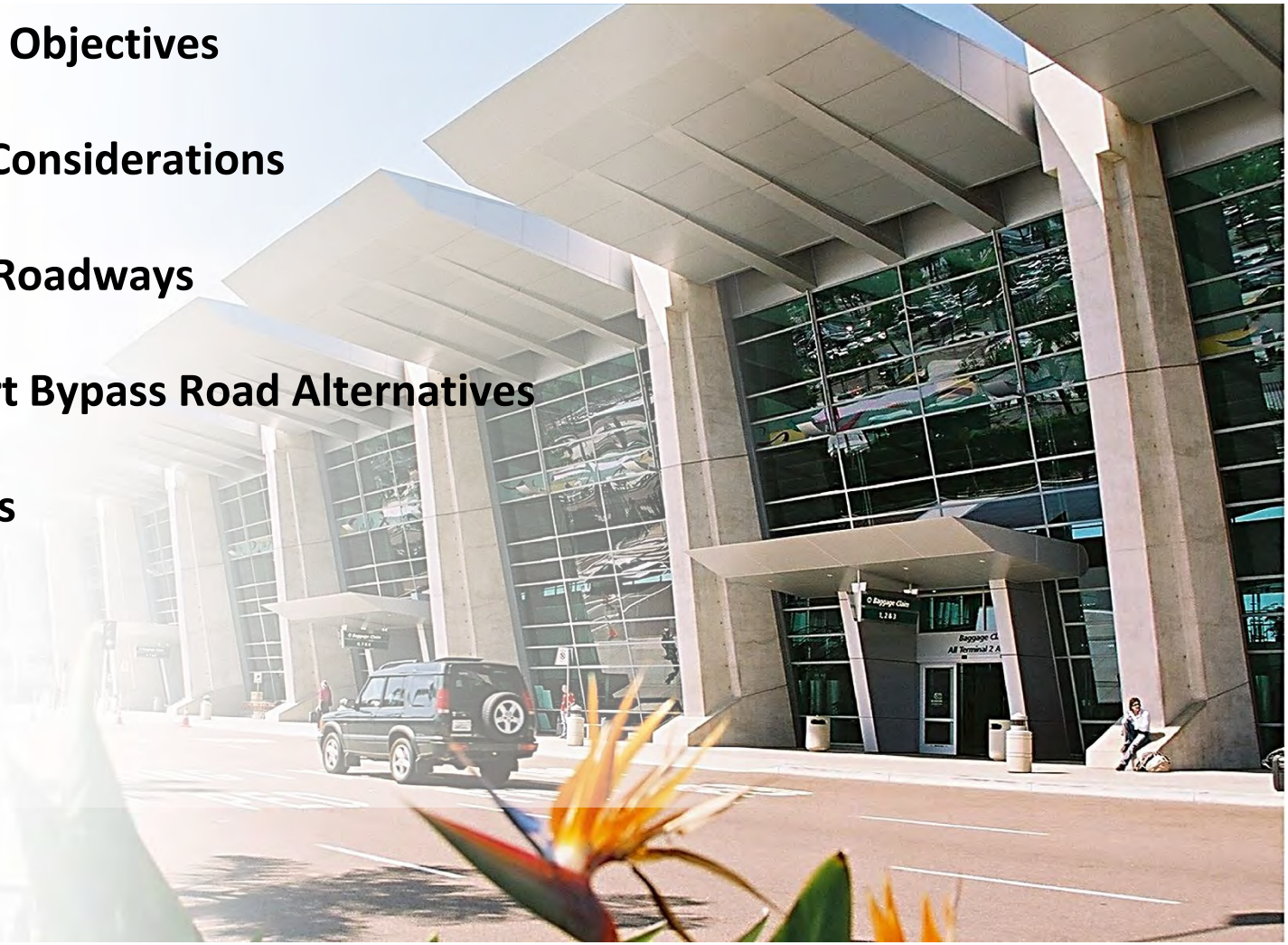
SAN DIEGO INTERNATIONAL AIRPORT

SDIA AIRPORT DEVELOPMENT PLAN

Leigh Fisher Management Consultants

Agenda

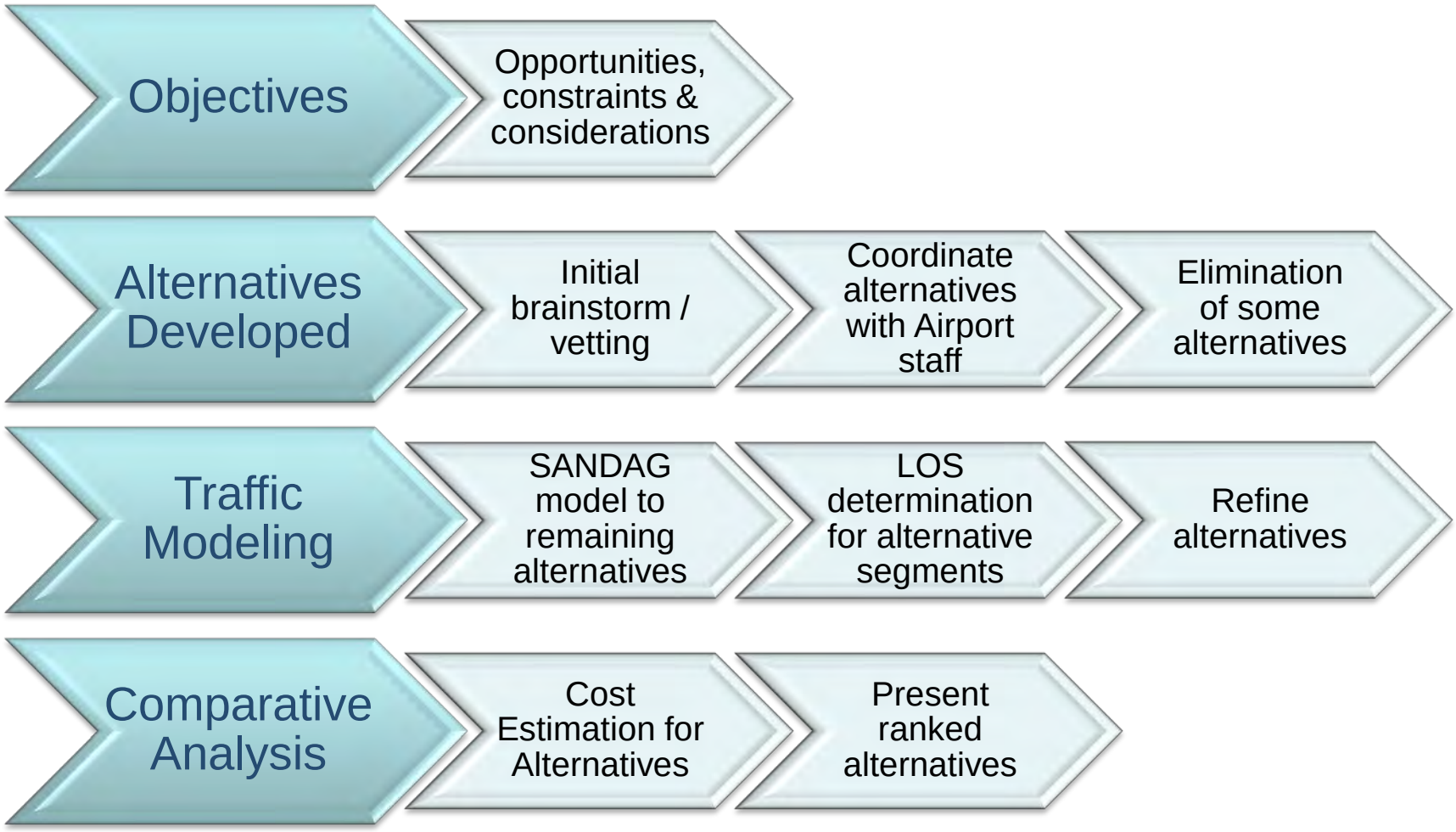
- **A** Process & Objectives
- **B** Planning Considerations
- **C** Terminal Roadways
- **D** On-Airport Bypass Road Alternatives
- **E** Next Steps



A

Process & Objectives

Process

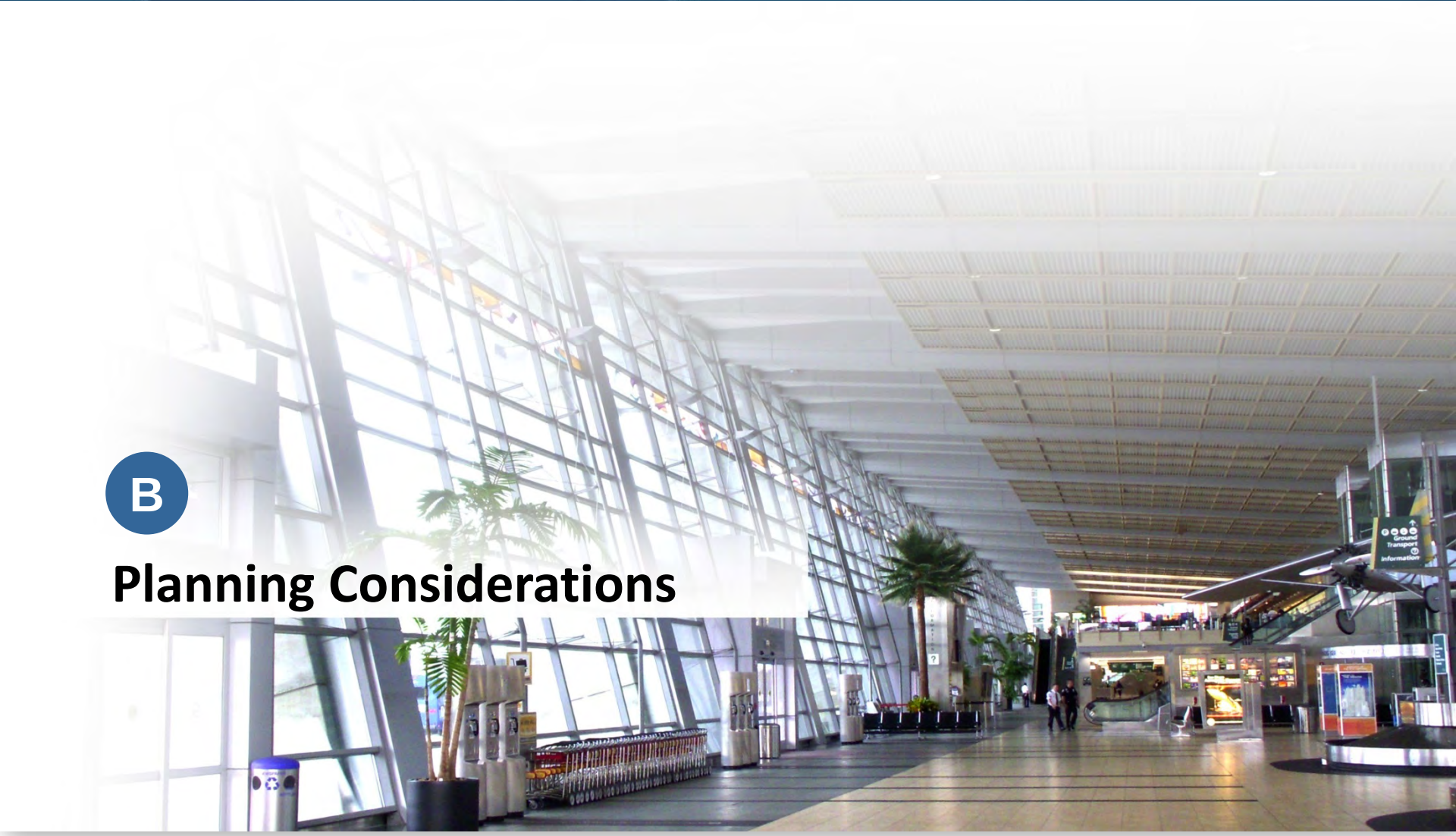

Objectives
Opportunities, constraints & considerations
Alternatives Developed
Initial brainstorm / vetting
Coordinate alternatives with Airport staff
Elimination of some alternatives
Traffic Modeling
SANDAG model to remaining alternatives
LOS determination for alternative segments
Refine alternatives
Comparative Analysis
Cost Estimation for Alternatives
Present ranked alternatives

Objectives

- Remove Airport traffic from N. Harbor Drive
- Connect the On-Airport access roadway efficiently and cost effectively to the city street network
- Improve connectivity to Interstate 5, if possible
- Align with regional traffic objectives (SANDAG)
- Maintain western access (Point Loma)

Evaluation Criteria

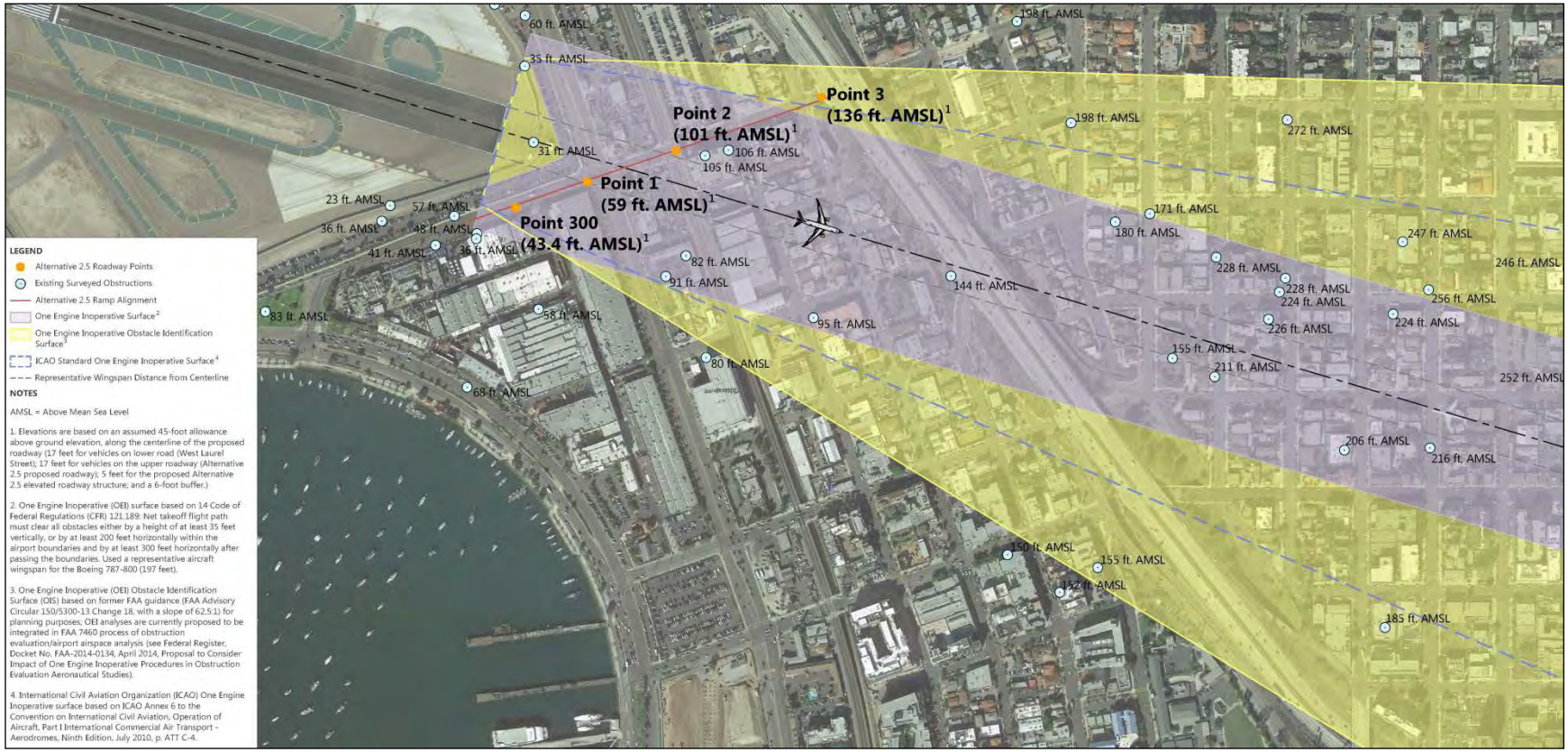
- Removes airport traffic from Harbor Drive
- Improves connectivity to I-5
- Aligns with regional traffic objective (Pacific Highway vs. Harbor Dr.)
- Level of improvements required to off airport roads (for non-airport traffic)
- Level of impacts to off-airport traffic flows
- Level of impacts to off-airport facilities
- Level of impacts to airport facilities
- Cost implications
- LOS results



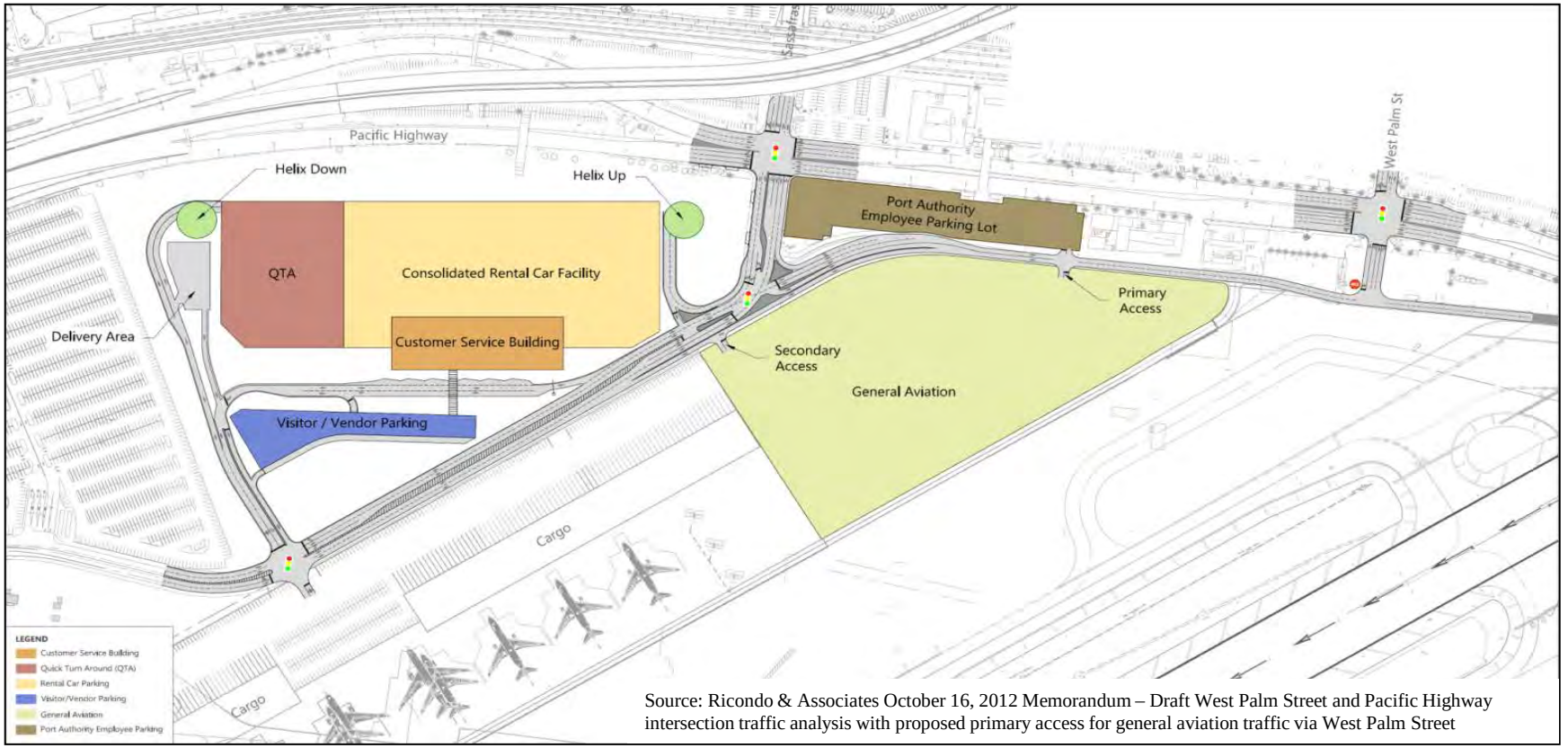
B

Planning Considerations

Planning Considerations – Protect Runway Operations



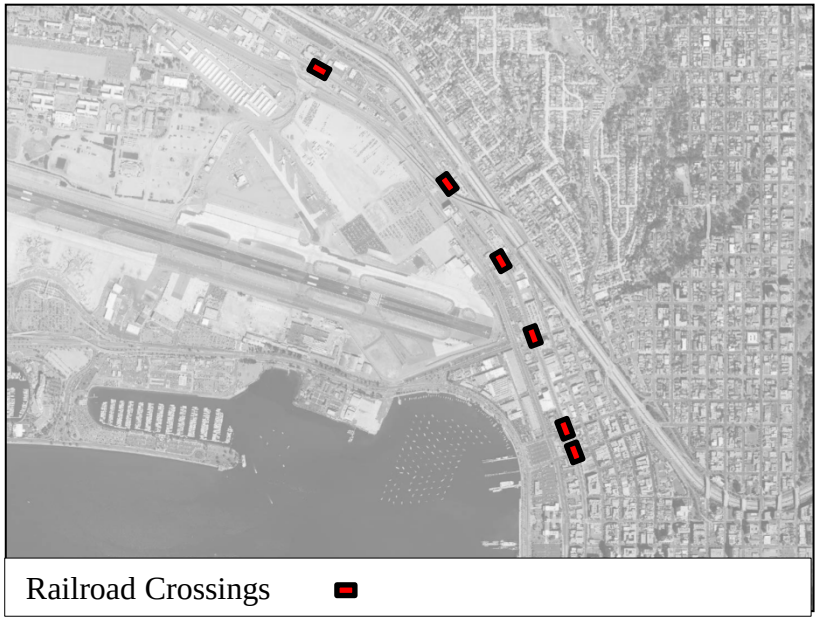
Planning Considerations – North Side



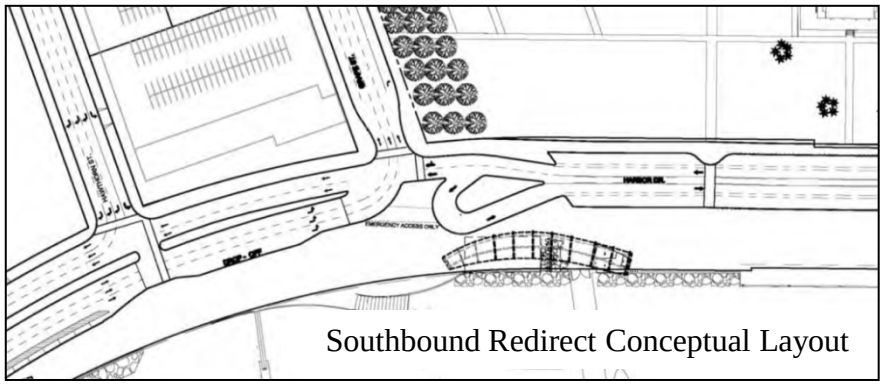
Source: Ricondo & Associates October 16, 2012 Memorandum – Draft West Palm Street and Pacific Highway intersection traffic analysis with proposed primary access for general aviation traffic via West Palm Street

- North Side Improvements
- Marine Corps Recruit Depot (MCRD)
- Intermodal Transit Center (ITC)

Planning Considerations – Regional Transportation



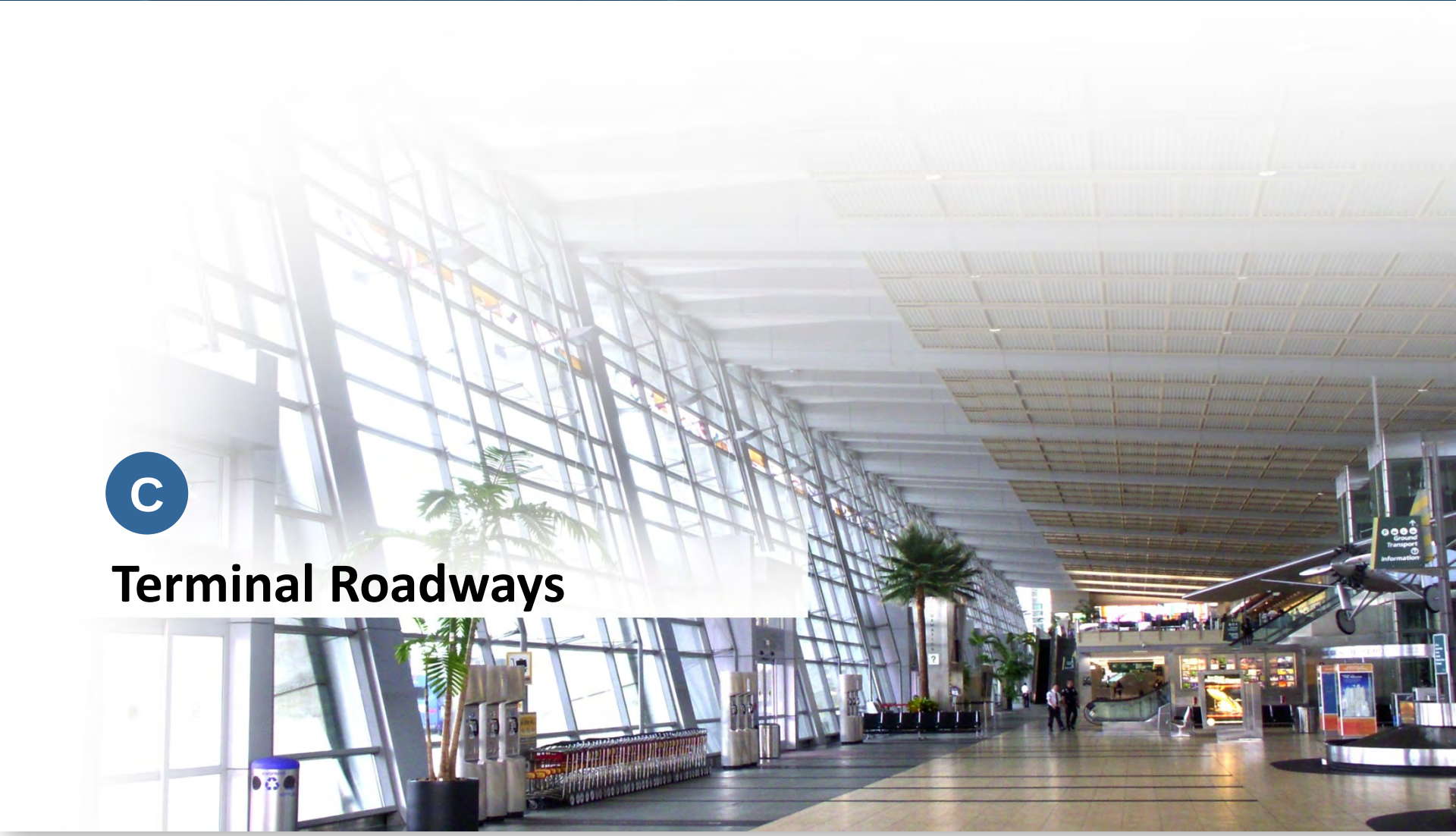
- Limitations of existing I-5 exit ramps
- Railroad crossings along the I-5 /Pacific Highway corridor



- Waterfront redevelopment
- Southbound redirect of Harbor Drive

Planning Considerations – Traffic Volumes

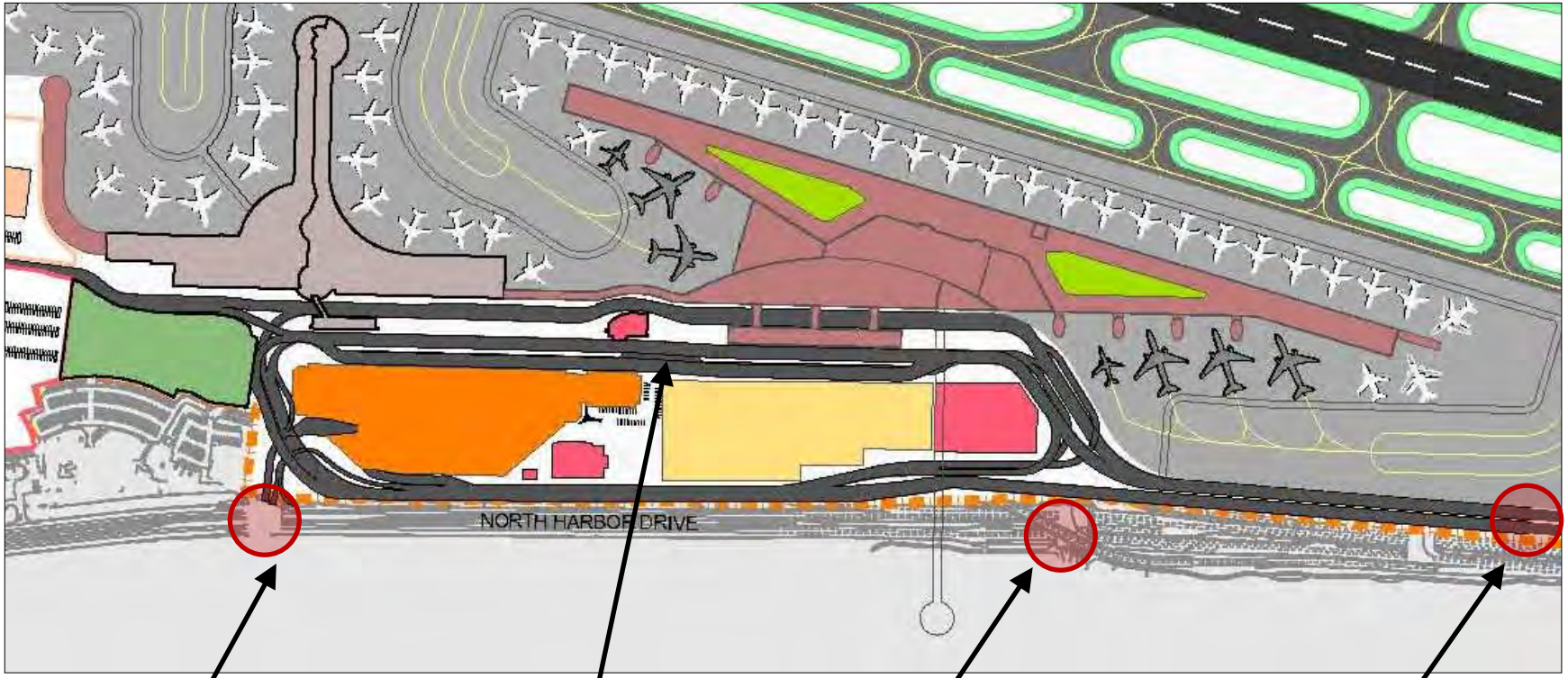
- **Refinements were made to the SANDAG traffic model to align model assumptions with airport plans**
- **Baseline (2014) and forecast (2035) volumes are being used to model alternatives**



C

Terminal Roadways

Terminal Core – Terminal Layout (Alternative #4)



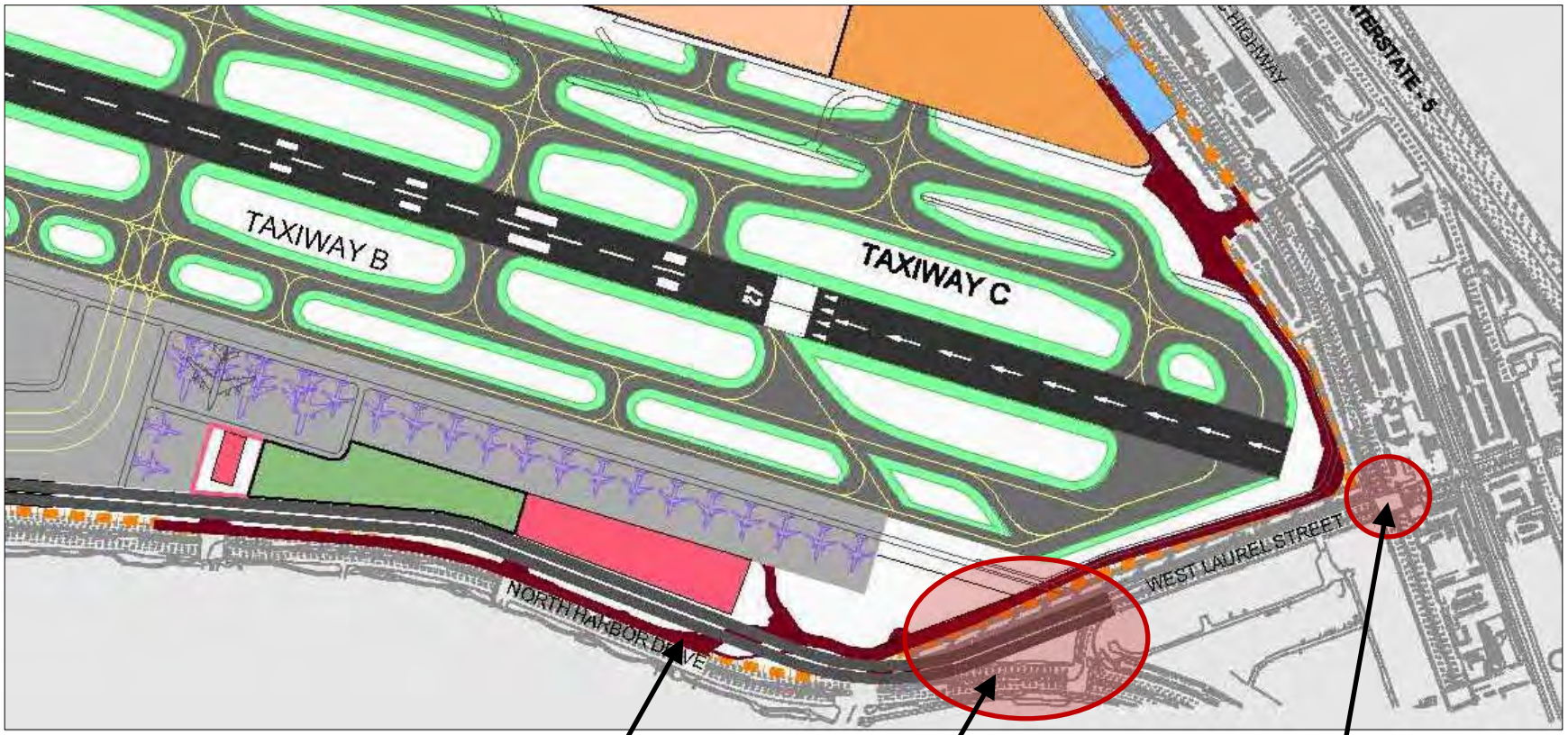
Western Entrance maintained

In-line terminal loop roadway

Harbor Island entrance closed

Connection to the Airport Access Roadway

Harbor Drive Bypass Roadway



RCC Shuttle Route

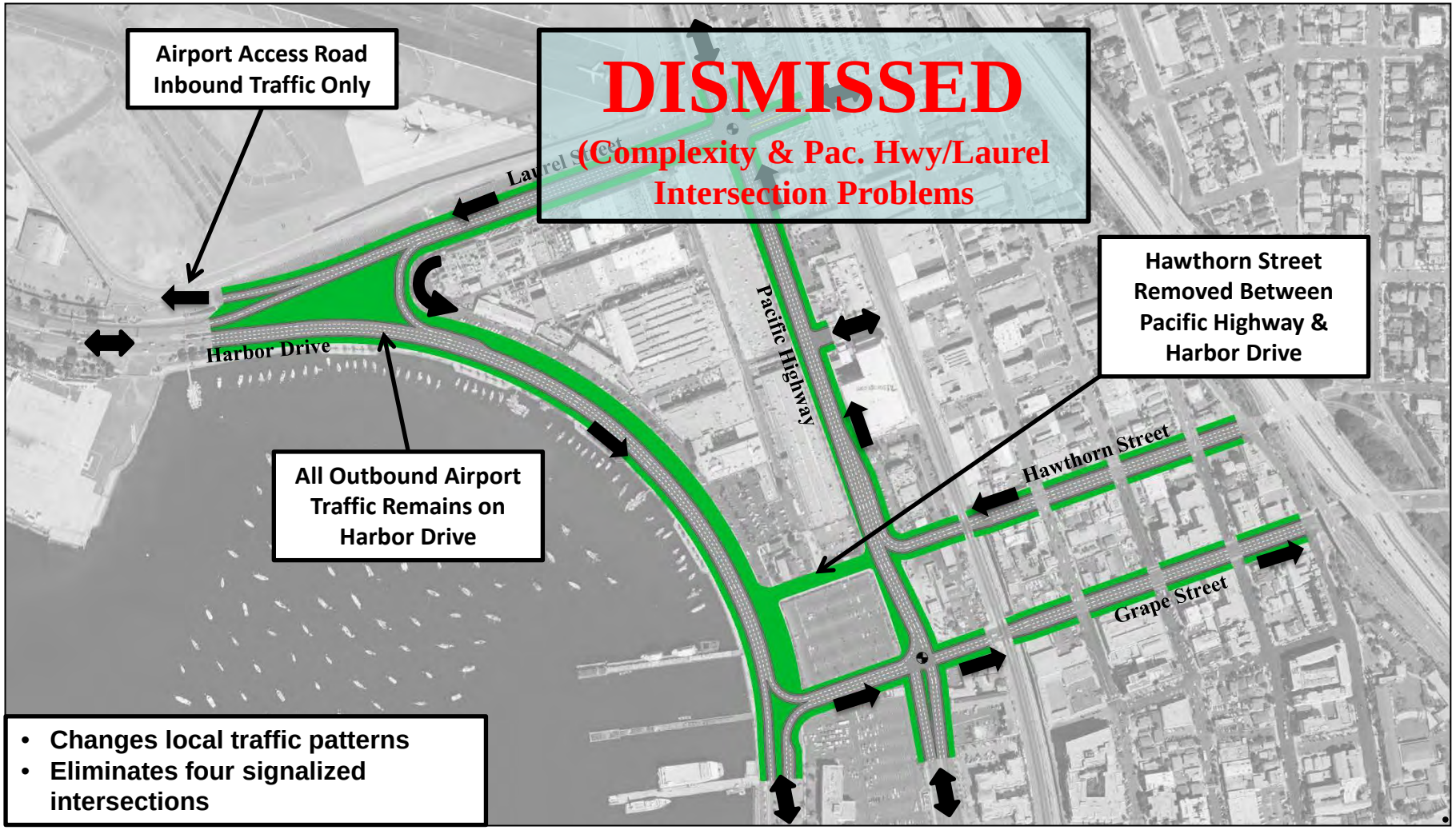
Airport Access Roadway/Laurel Street/Harbor Drive Intersection

Laurel Street/Pacific Highway Intersection

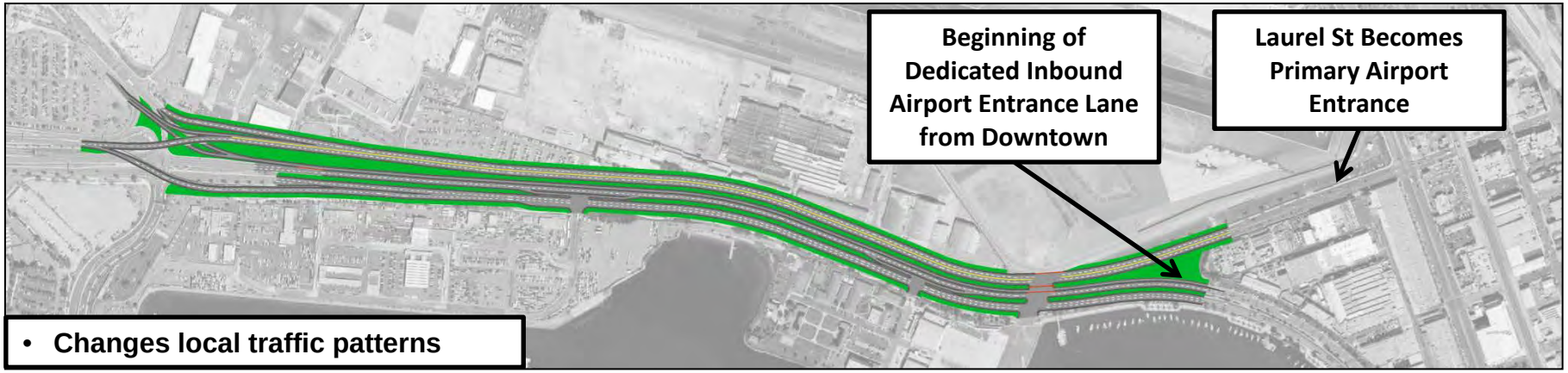
D

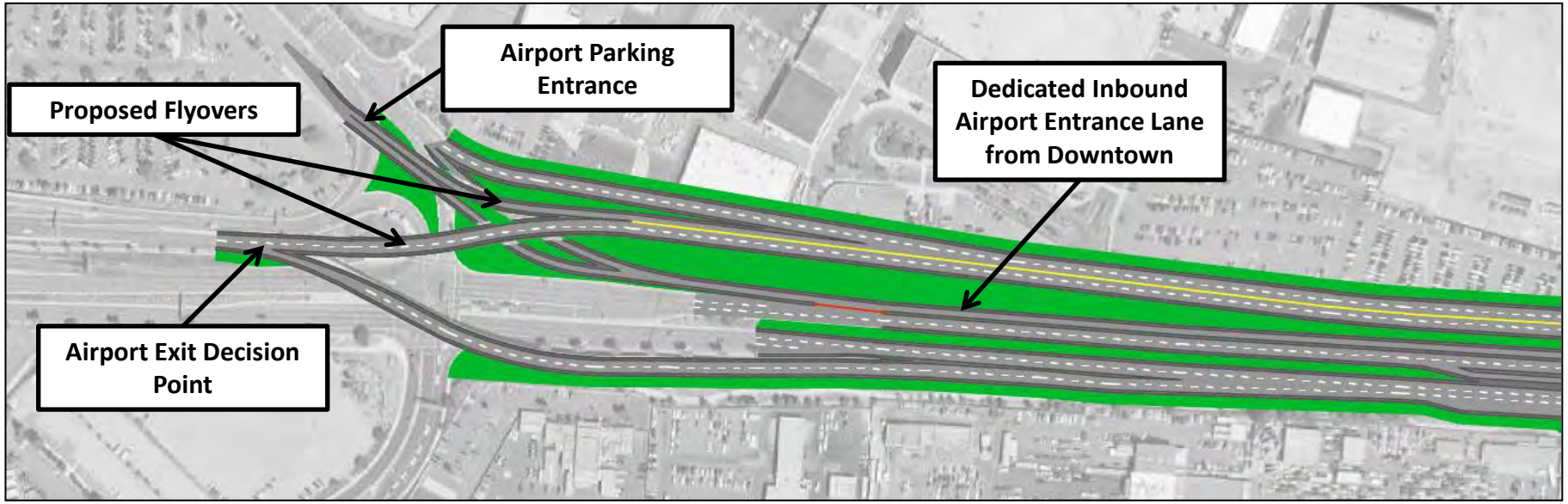
On-Airport Bypass Road Alternatives

Alternative 1.1: One Way Streets

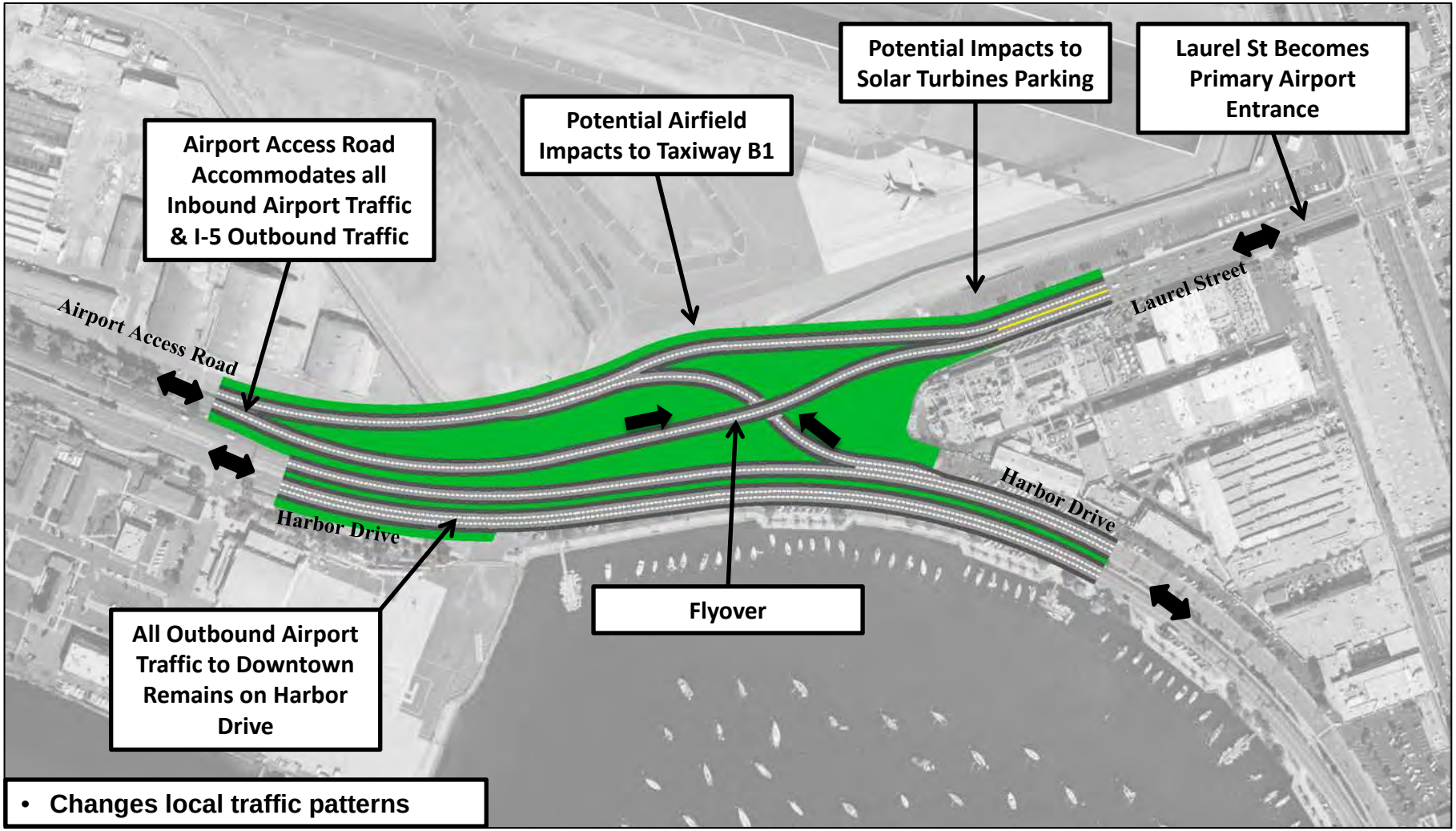


Alternative 1.2: Terminal Core Flyover



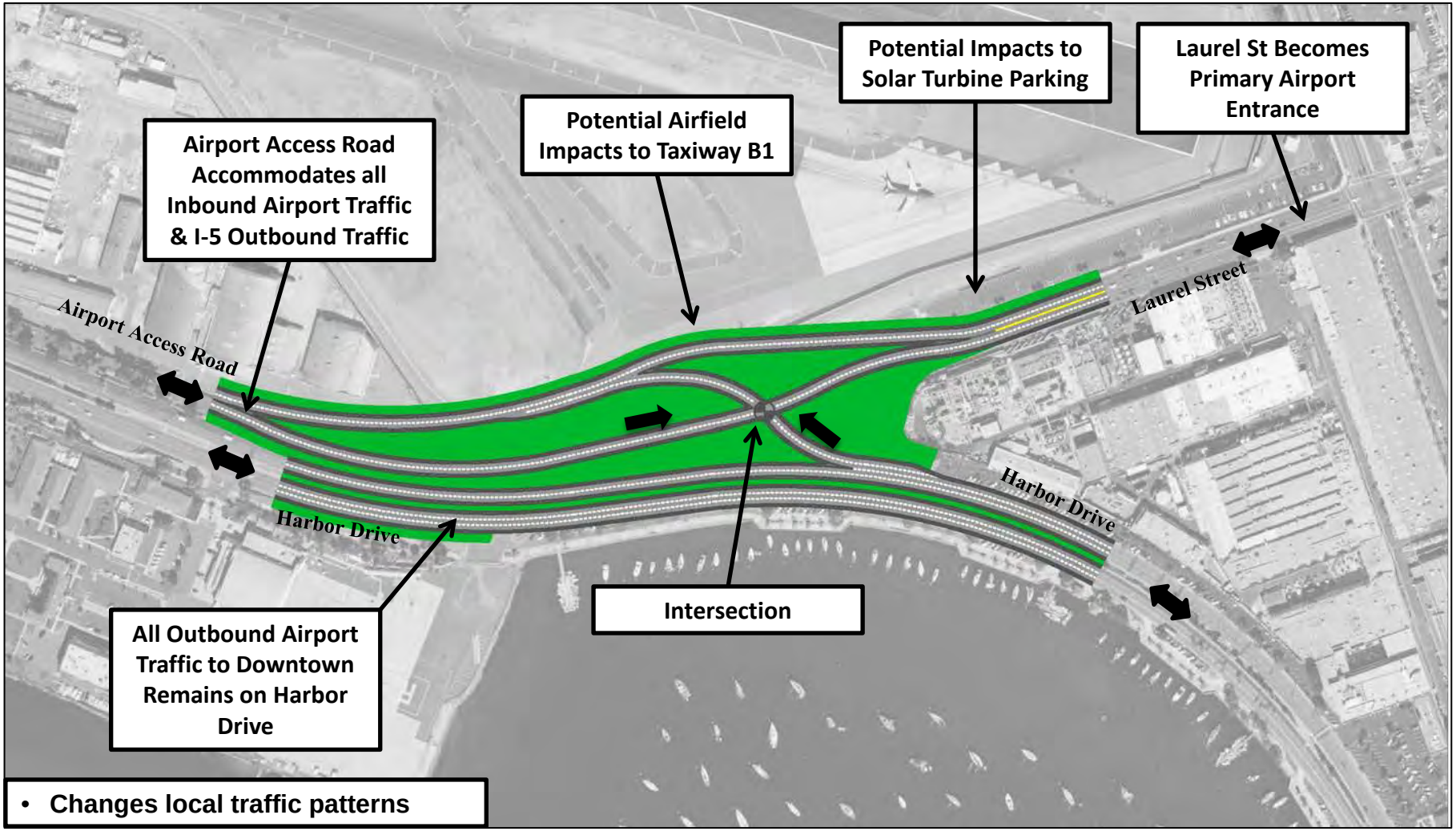


Alternative 1.3: Laurel Street Flyover



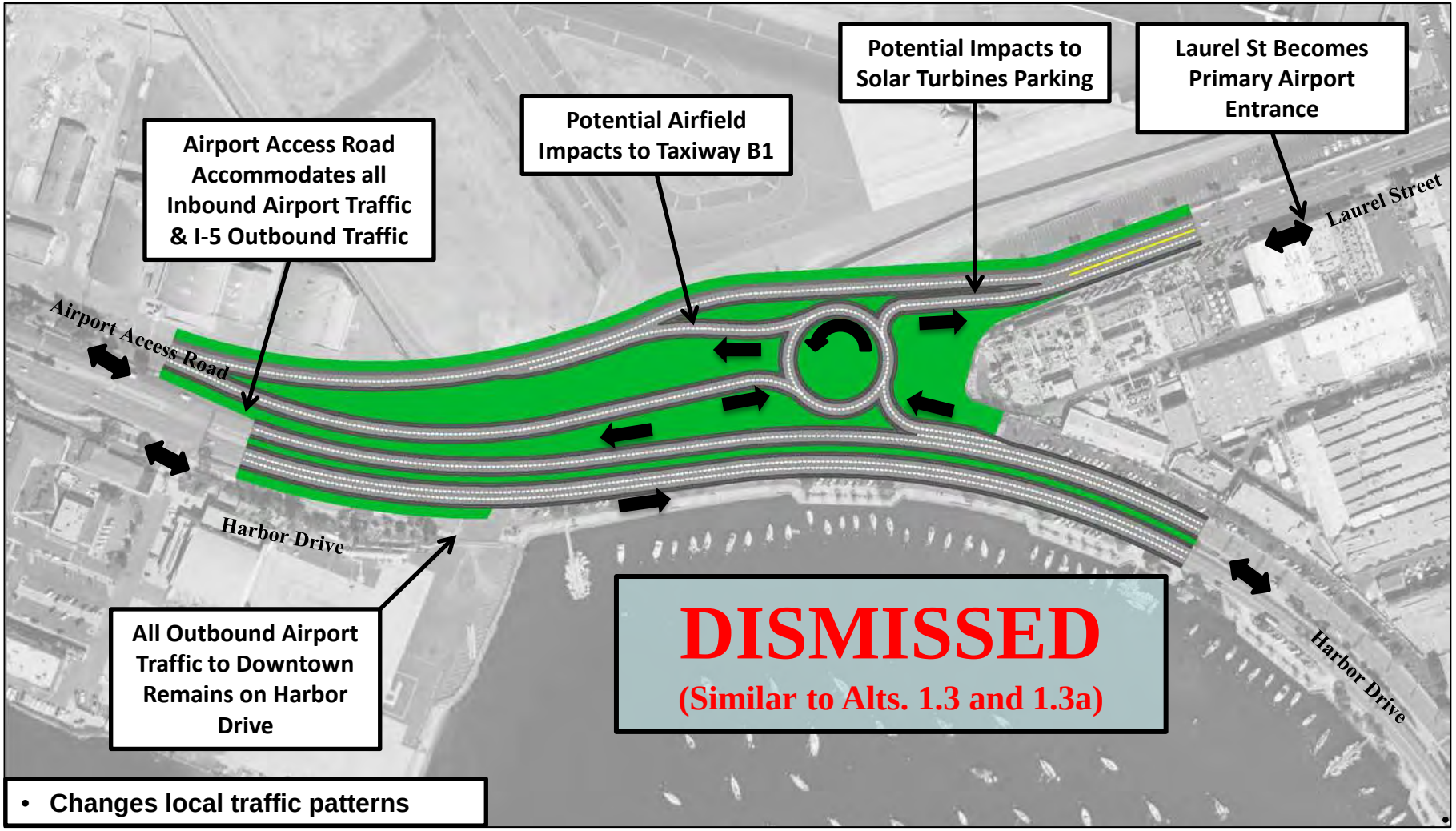
- Changes local traffic patterns

Alternative 1.3a: Laurel Street

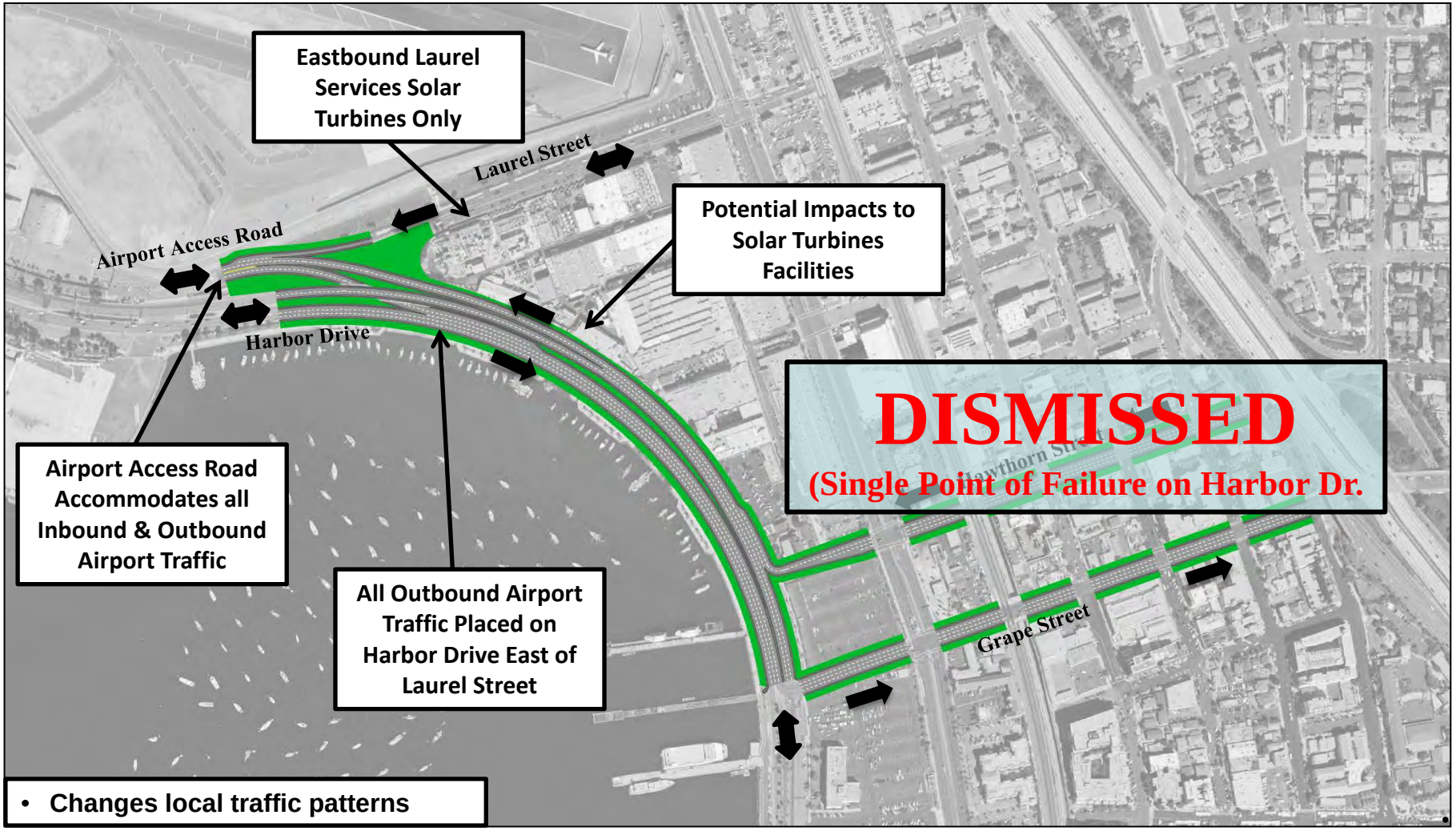


- Changes local traffic patterns

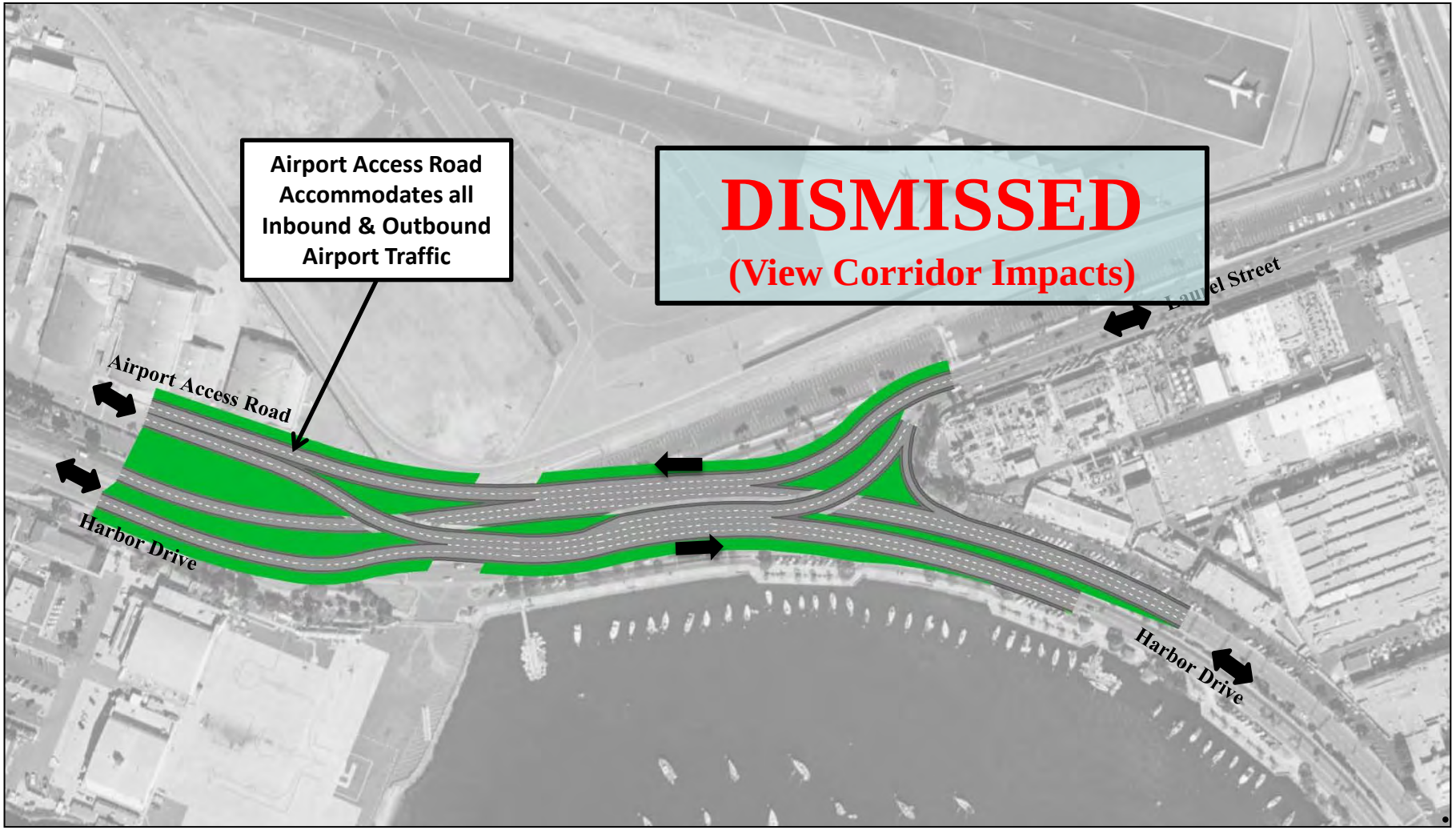
Alternative 1.4: Single Roundabout



Alternative 1.5: Harbor Drive Flyover

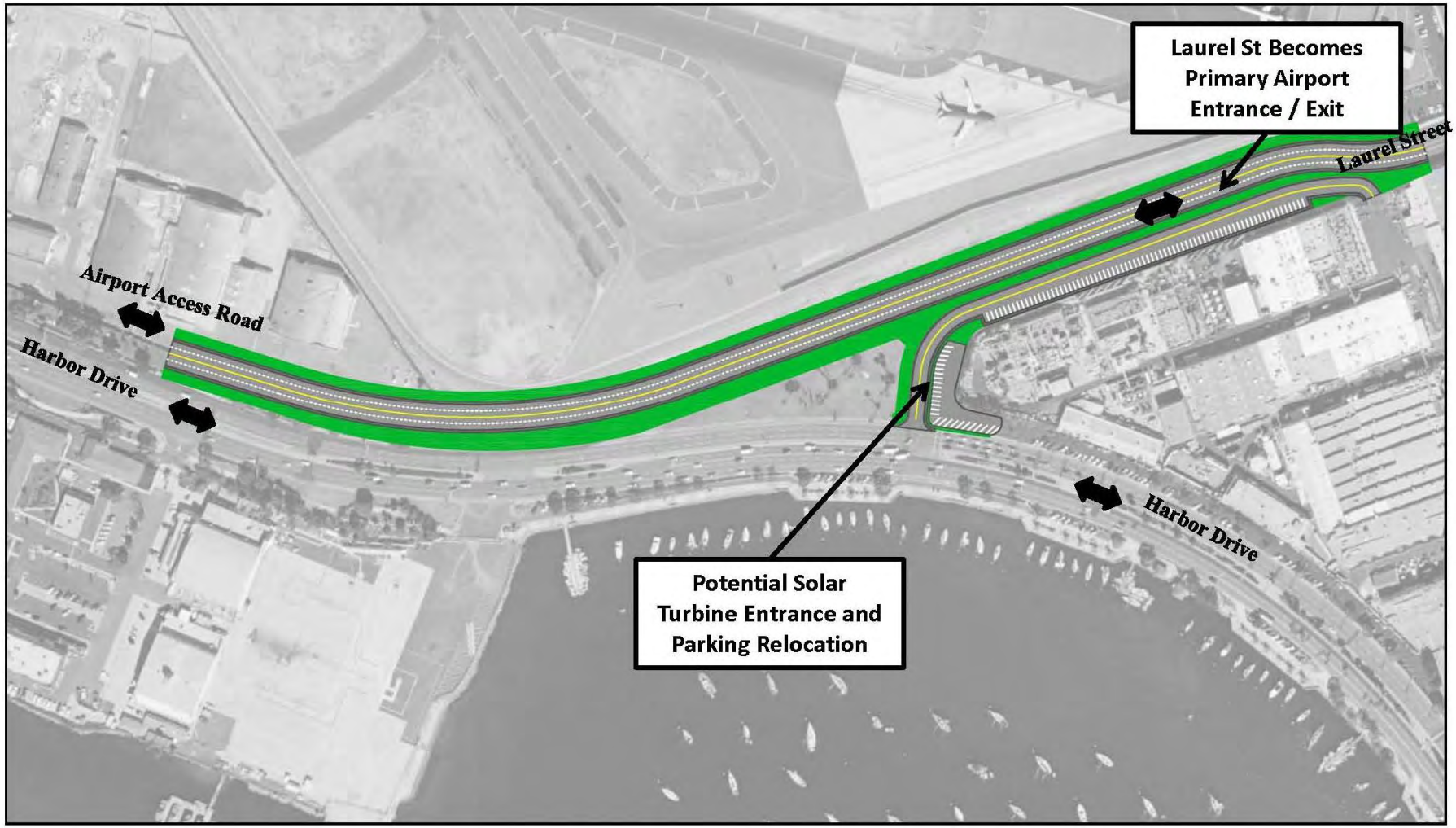


Alternative 1.6: Stacked Roadway



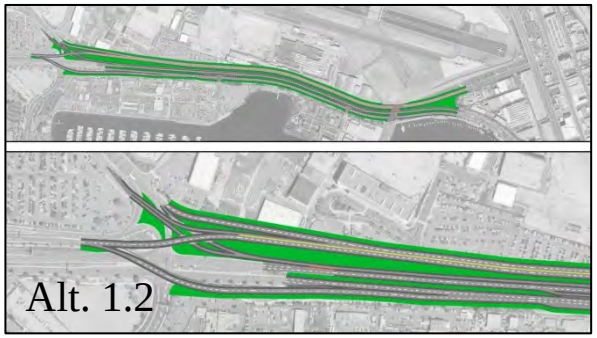
Alternative 1.7: Elongated Roundabout

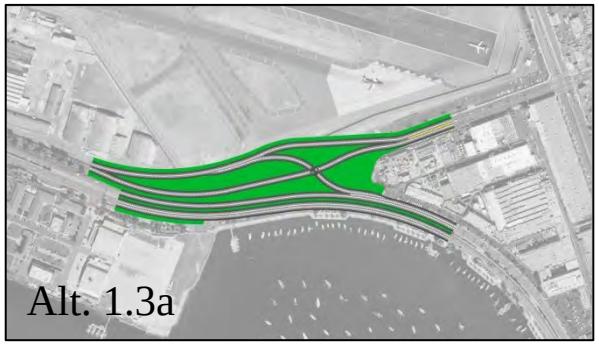
Alternative 1.8: Laurel becomes Airport-only

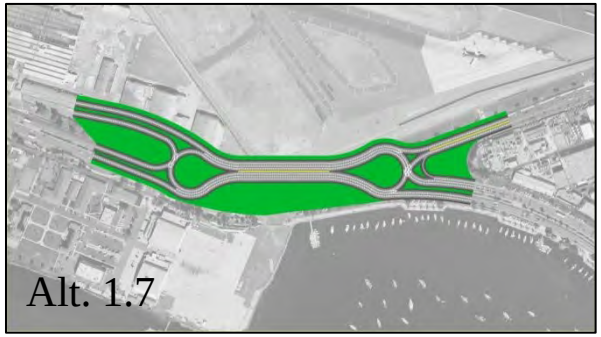


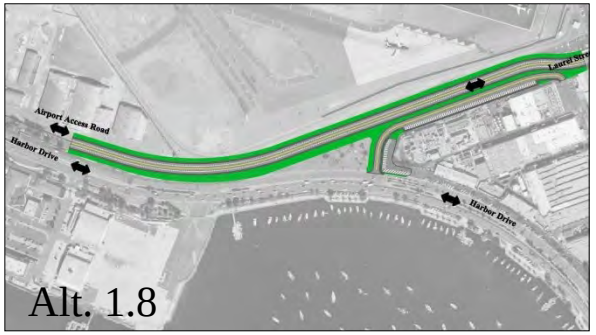
Airport Access Road/Off-Airport Road Connection

Selected Alternatives









E

Next Steps

Next Steps

- **Continuing partnership with SANDAG to complete the traffic model runs for each alternative**
- **Perform LOS (level of service) analysis on alternatives to:**
  - Validate number of lanes required
  - Validate roadway geometry
  - Compare LOS of existing conditions, future w/out changes and future w/alternative
- **Identify ROM costs**
- **Refine alternatives and prepare final comparative analysis**
- **Coordinate with Stakeholders and recommend preferred alternative(s)**

Comparative Analysis/Evaluation Matrix

- **Evaluation Matrix**
  - Rankings (where quantifiable) are from 1 to 5 where 1 is the best
  - Lowest total ranking will be presented as the preferred alternative
- **Criteria**
  - Removes airport traffic from Harbor Drive
  - Improves connectivity to I-5
  - Aligns with regional traffic objective (Pacific Highway vs. Harbor Dr.)
  - Level of improvements required to off airport roads (for non-airport traffic)
  - Level of impacts to off-airport traffic flows
  - Level of impacts to off-airport facilities
  - Level of impacts to airport facilities
  - Cost implications
  - LOS results

Evaluation Matrix

Consultant Work Product for Discussion Purposes Only

Preliminary Alternatives Evaluation

NO.	EVALUATION CRITERIA	METRIC	ALTERNATIVE 1.2		ALTERNATIVE 1.3		ALTERNATIVE 1.3a		ALTERNATIVE 1.7		ALTERNATIVE 1.8	
			Criteria Value	Rank	Criteria Value	Rank	Criteria Value	Rank	Criteria Value	Rank	Criteria Value	Rank
On-Airport Ground Access												
1	Removes Traffic from Harbor Drive	Y/N										
2	Improves Connectivity to Interstate-5	Y/N										
3	Aligns with Regional Traffic Objectives (to shift traffic to Pacific Highway from Harbor Drive)	Y/N										
4	Requires Improvements to off-Airport roadways (which will include non-airport traffic)	Y/N										
5	Impacts off-Airport roadway traffic flows (negative/positive)	Y/N										
6	Impacts existing (or future existing) Airport facilities	Y/N										
7	Impacts existing (or future existing) off-Airport facilities	Y/N										
Cost Estimates (ROM)												
8	Costs of on-Airport Roadway modifications	Quan										
9	Costs of off-Airport Roadway modifications	Quan										
10	Costs of on-Airport "Replacement" Facilities	Quan										
11	Costs of off-Airport "Replacement" Facilities	Quan										
12	Other costs	Quan										
LOS (Level of Service) Results												
13	LOS ranking achieved by Alternative	LOS										
14	LOS ranking impacts to other streets by Alternative	LOS										

QUESTIONS?