

# Supportive Transit Parking Program

## Ridership versus Parking Demand Model Summary

October 2016



# Approach

- Model components
  - Base data
  - Station typology assignment
  - Demand ratios
  - Elasticity curve
- Base data
  - Parking occupancy data
  - Weekday boardings by hour
  - TAP card activity – % first tap of day on rail
- Six station typologies
  - Mid-point
  - Terminus
  - Terminus-urban
  - Terminus-overflow
  - Transfer
  - Transit hub



# Approach (cont.)

- Demand ratios
  - Parked cars as % of total weekday boardings
  - Riders who park as percentage of first tap rail riders from open to 10:00 AM
- Elasticity curve
  - Baseline of free parking with reductions in parking demand based on parking rate increments of \$1.00 per day, up to a maximum of \$30.00 per day
  - Assumes transit parker behavior; does not consider behavior of non-transit parkers
- Additional assumptions which may be adjusted
  - Each parking space accommodates 1.1 cars per day on average
  - Transit riders per car of 1.1 on average



# Example

- Hypothetical terminus station
  - 1,000 weekday boardings; 350 of which from open until 10:00AM
  - 1.1 turns per parking space
  - 1.1 riders per vehicle
- Results showing parking rates of free to \$3.00 per day

Parking fee of \$0.00/day		
	Peak Demand	Riders
Low	313	379
High	397	480
Average	355	430
Parking fee of \$1.00/day		
	Peak Demand	Riders
Low	303	367
High	384	465
Average	343	415

Parking fee of \$2.00/day		
	Peak Demand	Riders
Low	293	355
High	371	449
Average	332	402
Parking fee of \$3.00/day		
	Peak Demand	Riders
Low	282	341
High	358	433
Average	320	387



# Updates and Refinements

- Incorporate Expo 2 and Gold Line Foothill stations
- Refine typologies to reflect demographics of station area or transit parker catchment area
- Update demand ratios after Parking Management Pilot parking occupancy data are available
- On-going data update schedule TBD
- Policy question – plan for free parking or use pricing to manage parking demand?

