



Using Performance Measures to Improve Parking Policies & Livability



UTCM Conference Performance Measures for Livable Communities

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Metropolitan Transportation Commission



METROPOLITAN
TRANSPORTATION
COMMISSION

SF Bay Area

7 Million Residents

4 Million Jobs

101 Cities

9 Counties

26 Public Transit Operators

5 Regional Agencies



Sprawl development patterns lead to disinvestment in the core



- Stagnant household and employment growth
- Declining real estate values and tax revenues
- Deteriorating public infrastructure
- Higher infrastructure costs, lower revenue per acre

FOCUS

Priority Development Areas

- Over 60 jurisdictions
– local application,
regional evaluation
- Over 120 areas
- About 425,000 new
housing units by 2035
- About 3% of region's
land area
- About 55% of
projected regional
growth



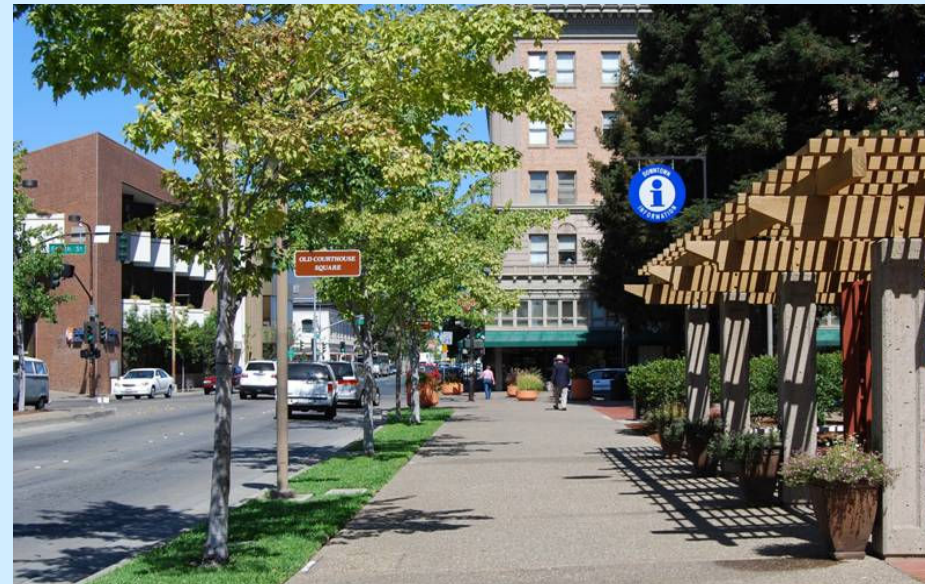
SB 375 Requirements

- Reduce GHG from cars & trucks 15% per cap by 2035
- Demographic and revenue assumptions
- House the region's population
- Align transportation, housing growth, and land use planning
- Adopt in early 2013



MTC's Sustainable Community Strategy Targets

1. Climate Protection
2. Adequate Housing
3. Healthy and Safe Communities
4. Open Space and Agricultural Protection
5. Equitable Access
6. Economic Vitality
7. Transportation System Effectiveness
8. Infrastructure Security



Are parking policies important for meeting planning targets?

Excess/Free/Subsidized parking...

- Generates traffic, VMT and emissions (Targets 1 & 7)
- Makes infill more expensive, housing more expensive and limits reuse of older buildings (Targets 2 & 5)
- Tilts development toward suburban locations with cheaper land (Target 4)
- Is expensive, economically inefficient and inequitable (Targets 3, 5, 6 & 7)

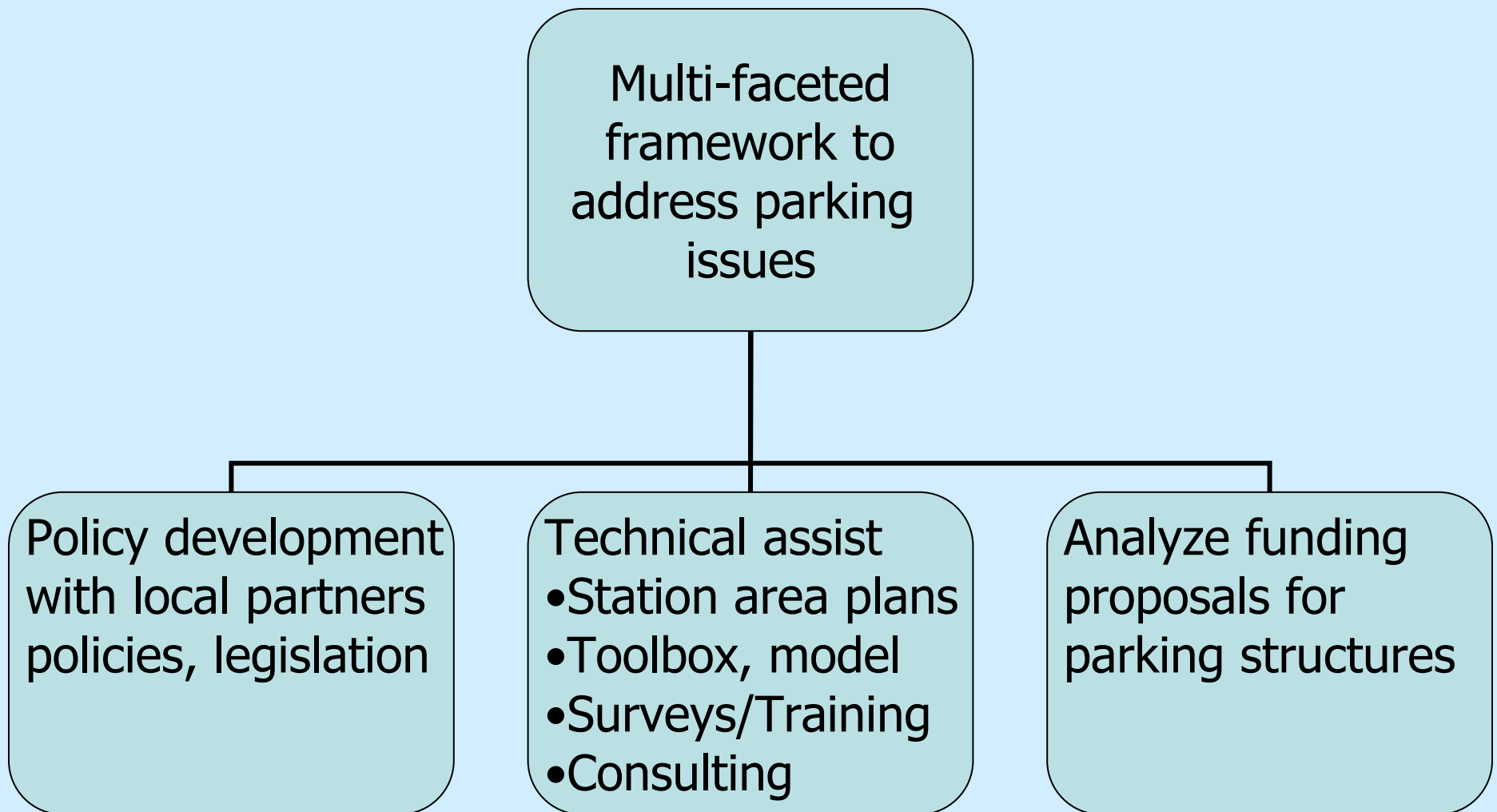
But – some parking is necessary for components of smart growth

- **For BART/Rail**
- **For TOD**
- **For downtown infill**



Regional Parking Strategies to support smart growth

Parking policies are primarily governed by local land use policies



Smart Growth Parking Tool Box & Model

mtc.ca.gov/planning/smart_growth/parking/parking_seminar.htm

Presentation for

June 14, 2007

Reforming Parking Policies to Support Smart Growth

Seminar & Toolbox Training



Project Team:

MTC PM - Valerie Knepper
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Rick Williams Consulting

Smart Growth Parking policies

Strategies by area typology

- Price and manage parking
- Unbundle and cash-out
- Support transit, walking & biking
- Reduce local requirements
- Share parking
- Carshare



Performance measures for parking structures . . . in a smart growth context

- Costs
- Ridership
- Revenues (willingness to pay)
- Alternatives
 - TDM
 - Land uses
- Other considerations – impact on GHG, mode share, equity, community concerns



Typical Parking Structure Proposal

Estimate Total Cost and Spaces

e.g., \$30 million for 1,000 spaces

- Land
- Construction
- Operations and Maintenance
- Present value of funds



Calculate cost per space (~\$25,000 - \$50,000)

Calculate cost per use/day (~\$7-\$15)

Traditional Approach

- Replace all transit spaces— reserve for transit user, free/\$1
- Add additional spaces for new TOD housing at standard ITE (suburban auto dependent) rates
- Add new parking for new TOD retail / businesses at standard ITE (suburban auto dependent) rates
- Add extra spaces “to ensure success” of new development

Large parking structures are very expensive, and often have <85% occupancy – oversized.

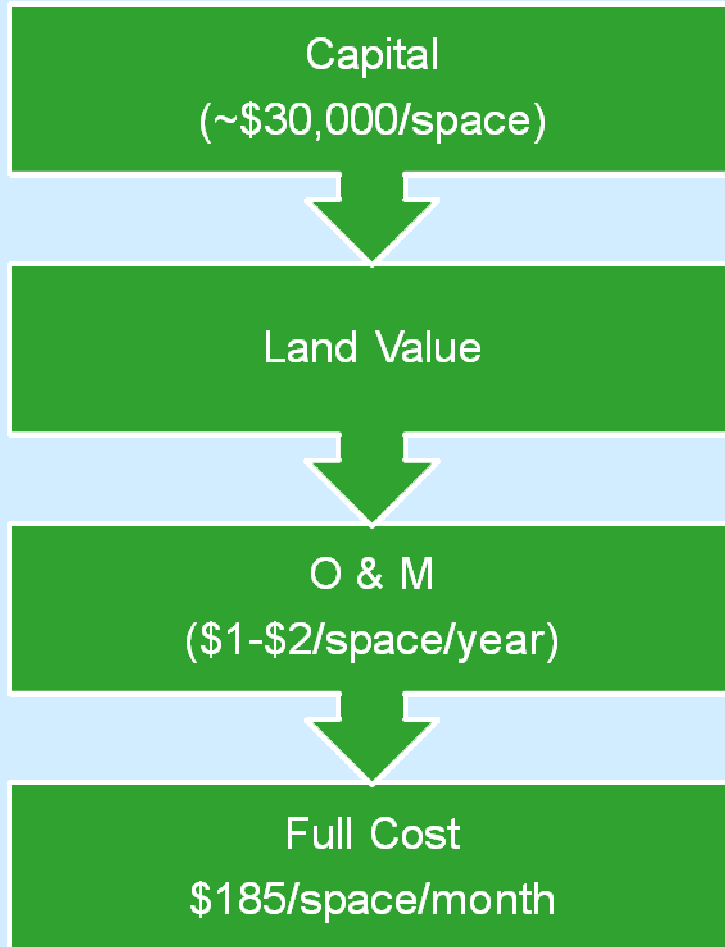


Why Should MTC Analyze Parking Structures?

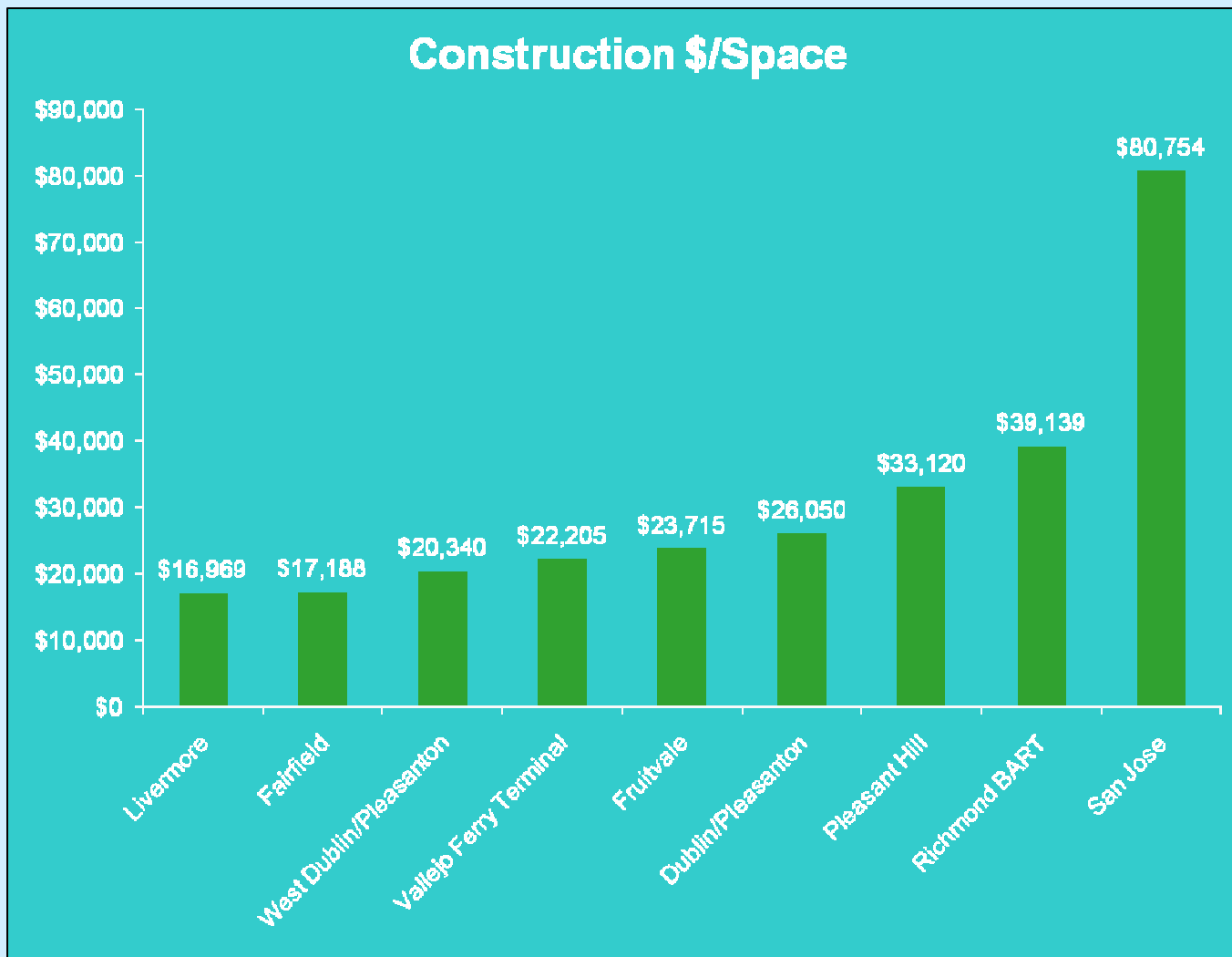
- Structures are expensive
- Parking on the horizon
 - TODs/Station Area Plans
 - 6000 spaces~\$150 million
 - Intermodal Stations
 - Downtowns
- TOD supports MTC regional goals – but how much parking structures vs. alternatives?



The Price of Vehicle Storage

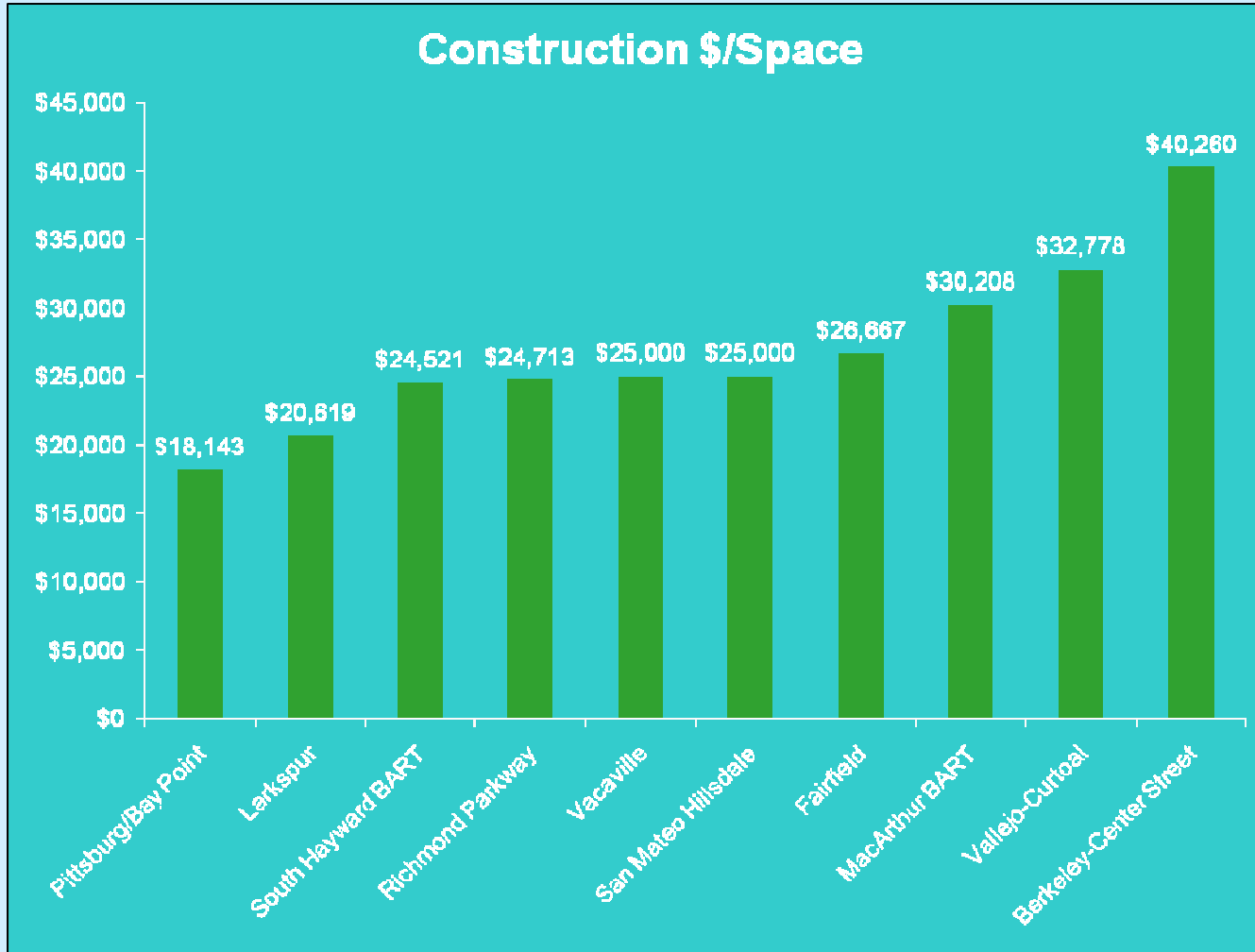


Recent Parking Structure Costs



**Average Actual
Cost:
\$31,000/space
Construction only**

Structures On The Horizon



**Average Planned
Cost:
\$24,000/space
Construction only**

Comparing Parking Structures with TDMs

Parking characteristics

- Number of spaces
- Net new spaces
- Revenues
- Occupancy/Turnover
- Cost per new space

TDM Possibilities

- Pricing – charges, unbundling, cash-out
- Shared parking
- Pedestrian/bicycle
- Transit

Annualized Cost
Per New Trip
on transit system

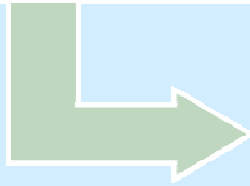
Annualized Cost
TDM Effectiveness
TDM cost per new trip
on transit system

*Implement TDMs
up to cost equivalent
of parking space
expense*

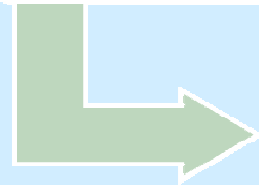
*Resize
parking structure
& implement TDMs*

Cost per Trip: Parking vs. TDM

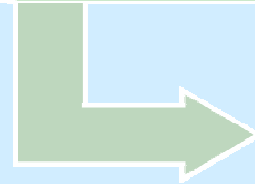
Cost Per Net Space



Occupancy and Turnover



Cost Per Trip



Compare to TDM



Parking Cost Per Trip: Examples

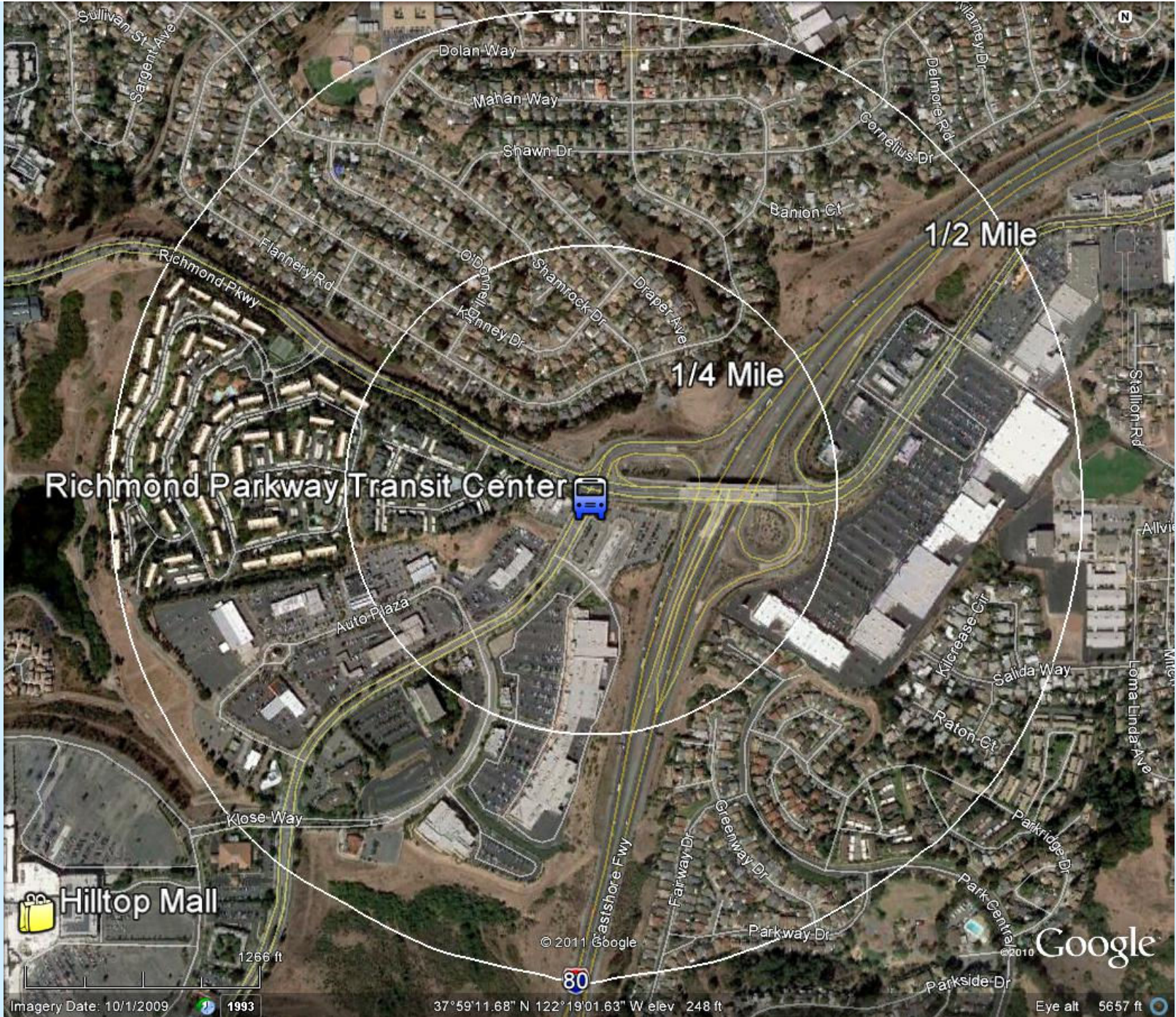
(Construction only)

Structure	\$/Month	\$/Workday
West Dublin/ Pleasanton	\$154	\$7.10
Vallejo Ferry Terminal	\$165	\$7.60
Vacaville	\$191	\$8.76
Fairfield	\$319	\$14.68

Case Study: Parkway Transit Center



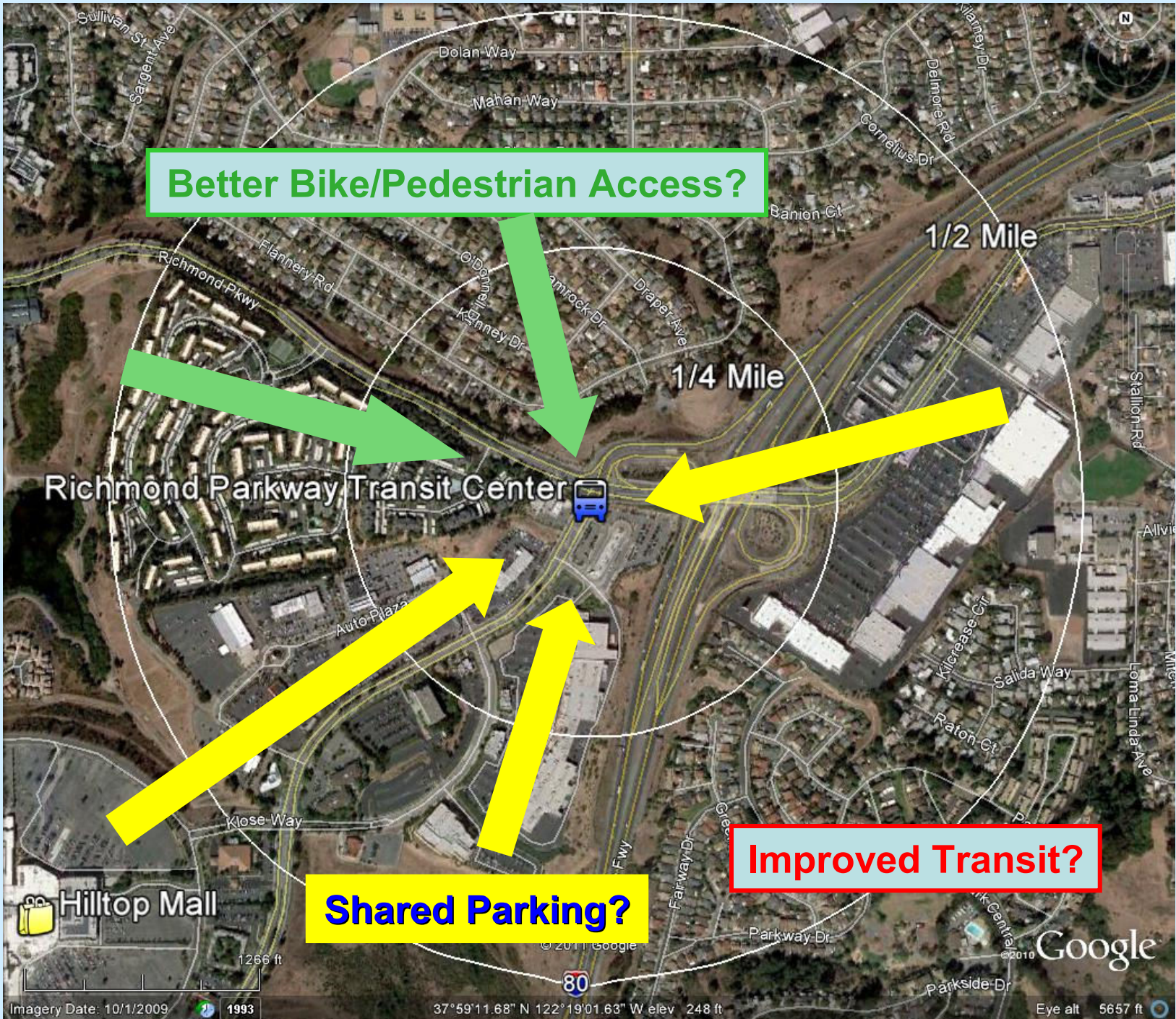
Proposal:	
Current Spaces	207
New Spaces	710
Net Spaces	503
Construction	\$17.5 M
\$/Space	\$25,000
\$/Net Space	\$35,000
Monthly Cost/New Trip	\$269
Daily Cost/New Trip	\$12



Imagery Date: 10/1/2009 1993

37°59'11.68" N 122°19'01.63" W elev 248 ft

Eye alt 5657 ft



Better Bike/Pedestrian Access?

Improved Transit?

Shared Parking?

Richmond Parkway Transit Center

1/2 Mile

1/4 Mile

Hilltop Mall

Google

Imagery Date: 10/1/2009

1993

37°59'11.68" N 122°19'01.63" W elev 248 ft

Eye alt 5657 ft

Comparing Parking Structures with TOD Housing

Parking structure cost

- Net new spaces
- Land
- Construction, O&M
- Revenues

Housing cost

- Land
- Construction costs
- Sales/rent revenue
 - Density
 - Reduced/managed parking

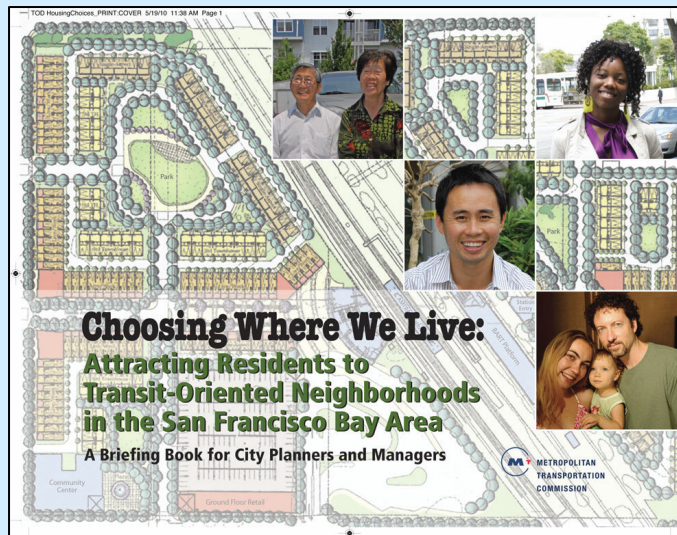
Annualized Cost / Return per sq ft

Transit ridership

*Our preliminary finding –
Compact housing 5+ stories tall delivers more riders
Housing provides more economic return
Structured parking costs ~\$7-15 per space
Policy issues – access, equity, GHG, design, etc*

Some people choose to live close to transit

http://www.mtc.ca.gov/planning/smart_growth/tod/briefing_book.htm

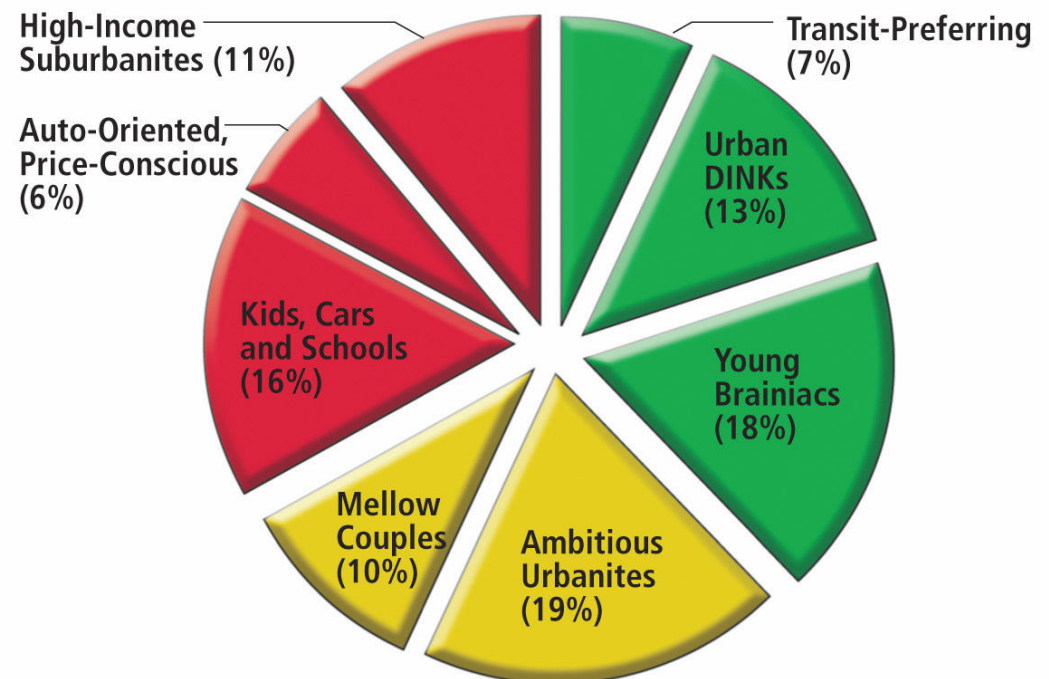


Design TOD housing for ***People who want to use transit***

- *Reduced parking, unbundling*
- *Transit benefits*
- *Carshare, walk and bike amenities*

Hardest To Attract
(33% of respondents)

Easiest To Attract
(38% of respondents)



Possible To Attract
(29% of respondents)

Structured Parking vs Housing

Preliminary Findings

- Housing 5+ stories delivers more BART riders than parking structures
- Housing - highest economic return of land uses in suburban settings, provides positive financial return - more economic value than parking
- Structured parking costs ~\$5-15 per space
- Other policy issues – access, equity, GHG, design, community concerns, etc
- Some parking is necessary for regional attractions, like BART, but can be minimized and shared.



Overall Conclusions

- Parking policies are an important component of smart growth policies
- Better parking policies are necessary to achieve our performance targets
- Pricing policies that show drivers the costs of their parking are essential – give consumers choices with prices
- Parking structures should be analyzed
 - Alternatives (Housing/TDMs)
 - Ridership, economics, equity, GHG
 - Right size parking, fund TDMs
- Consider regional parking policies
 - Analysis / Benchmarks / Flexible Standards?



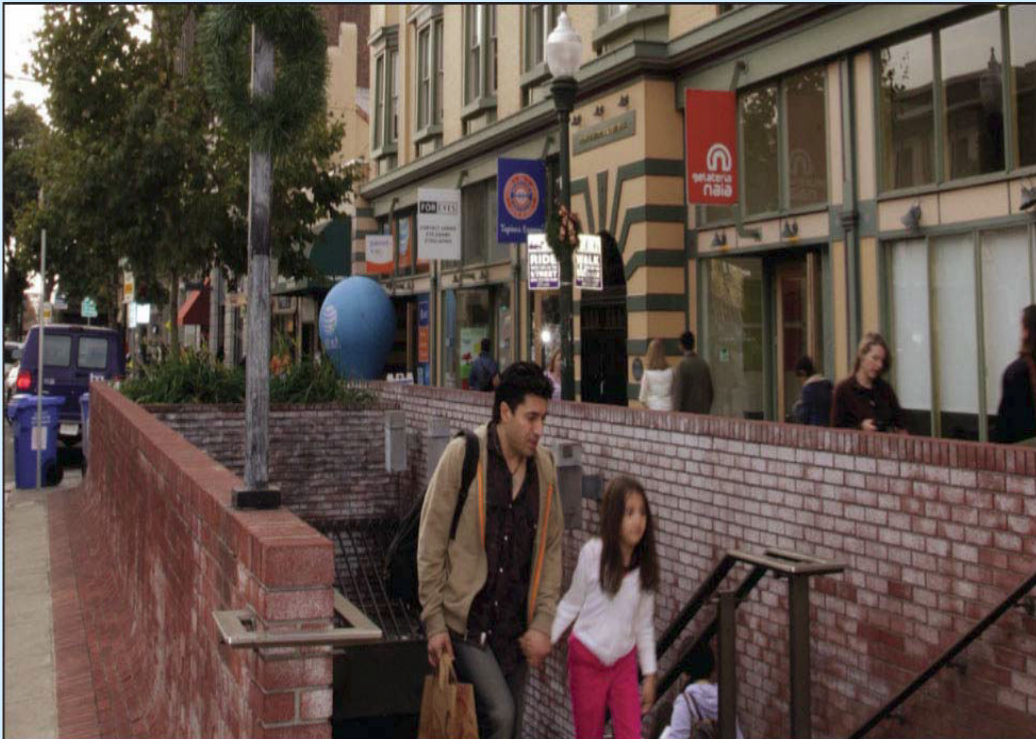
Questions?

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http://www.mtc.ca.gov/planning/smart_growth/parking/

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