

San Francisco
2008

Growing Cooler: Addressing Climate Change through Demand/VMT Reduction

Rail~Volution 2008

Growing Cooler: Addressing Climate Change through Demand/VMT Reduction

- Transportation sector accounts for 1/3 of US GHG emissions. VMT is major component
- “Growing Cooler” describes how land use and transportation strategies can reduce VMT to address climate change
- What specific steps are communities taking to reduce driving impacts and GHG?
 - **Australia**
 - **Berkeley**
 - **Boulder**



Berkeley, CA - Growing Cooler: Climate Action Plan Development

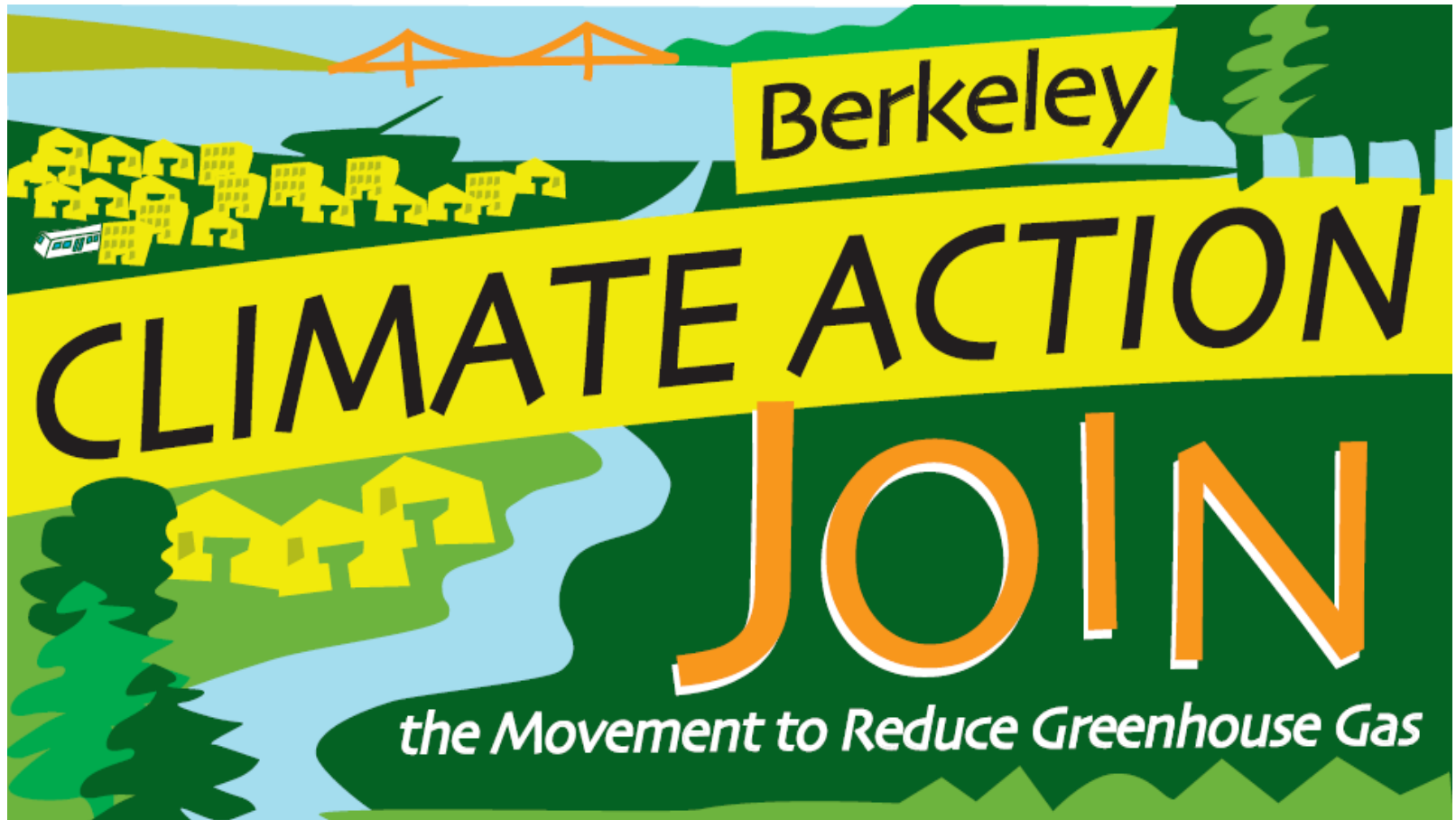
Matt Nichols

- Principal Transportation Planner for City of Berkeley, California, 2002-present.
- Transportation Director, ICLEI Cities for Climate Protection Campaign-U.S., 1996-2000.
- Directs Parking & TDM policy, Bicycle and Pedestrian Plans, Carsharing. Active in Universal Access TOD, BRT, and funding.

Growing Cooler: Addressing Climate Change through VMT Reduction

Matt Nichols' presentation:

- Berkeley, CA - Local Climate Action Planning for Transportation
- Critical review of GHG Inventory and Project Reduction methodology
- Strategies for funding and implementation
- Vision and Motivation. Hope and Fear.



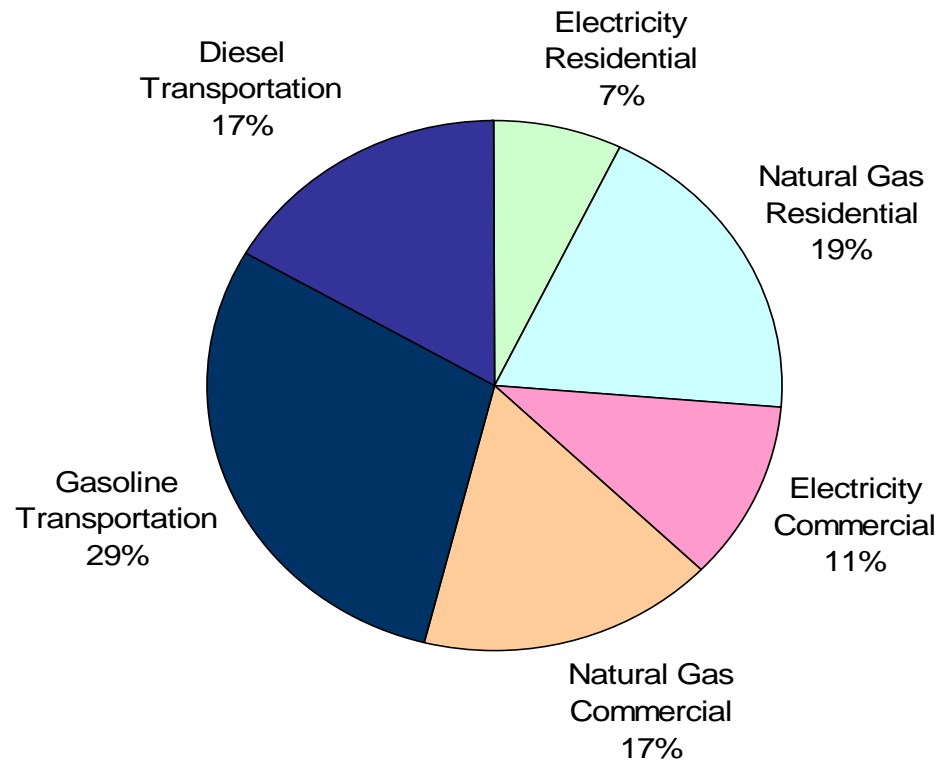
Local Measure G, 2006

81 percent of Berkeley voters supported Measure G in November 2006 which:

- 1. Establishes a target of reducing 2000 emissions levels by 33% by 2020.*
- 2. Reach 80% reduction in greenhouse gas emissions by 2050.*
- 3. Develop Climate Action Plan to identify municipal and resident actions to achieve targets.*

2005 Berkeley GHG Inventory

634,798 tons

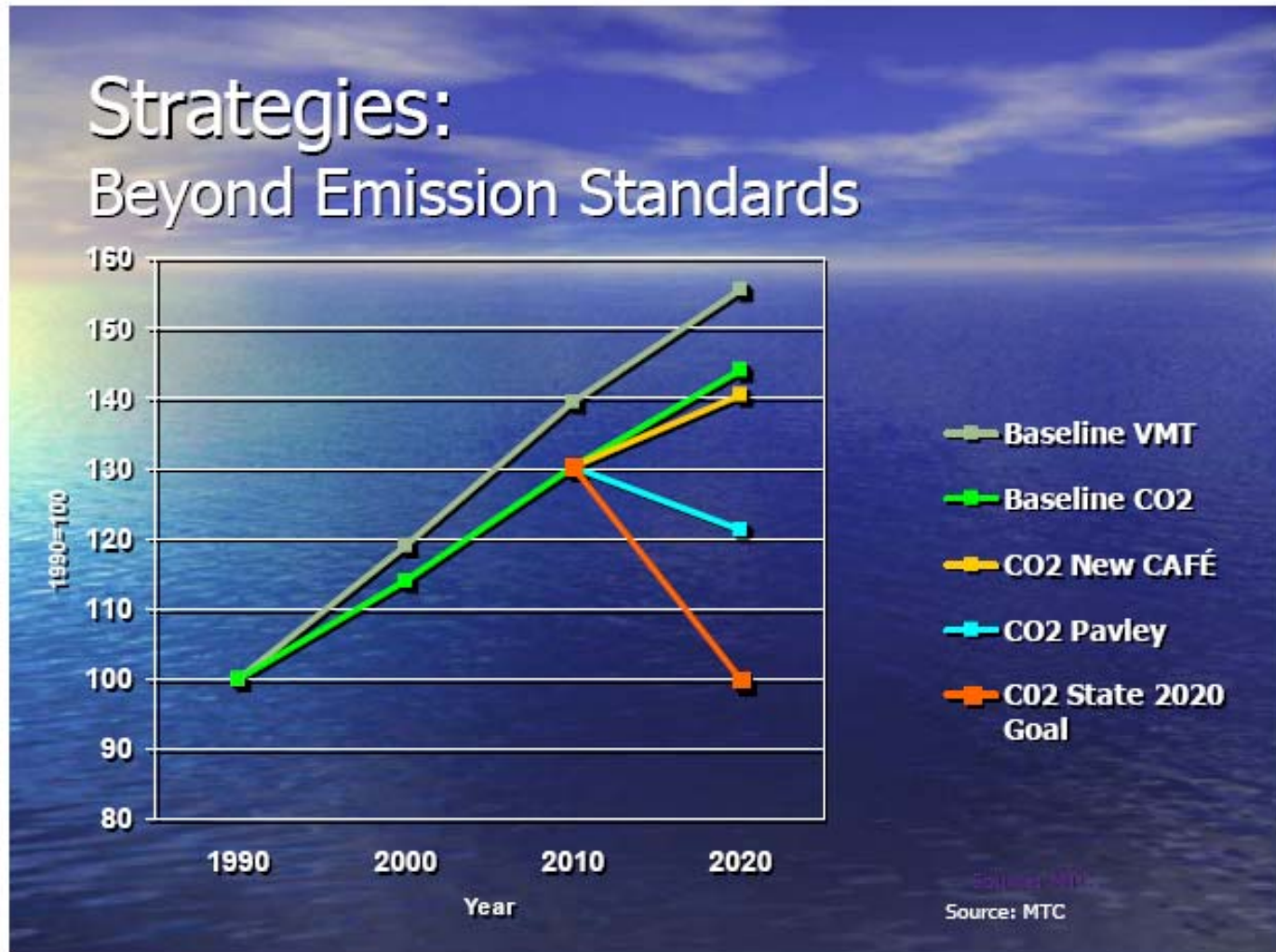


Transportation Reduction Targets

2020 Target (33%) - 95,421 tons/year

2050 Target (80%) - 289,620 tons/year

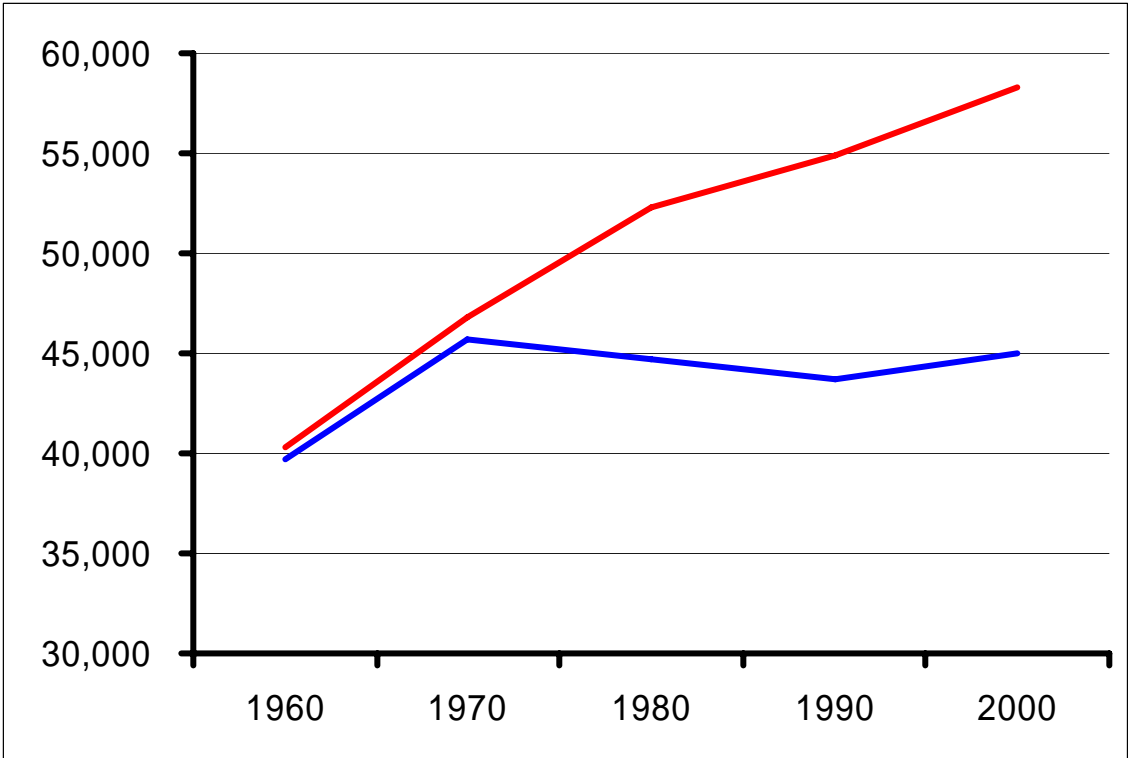
The Transportation Challenge



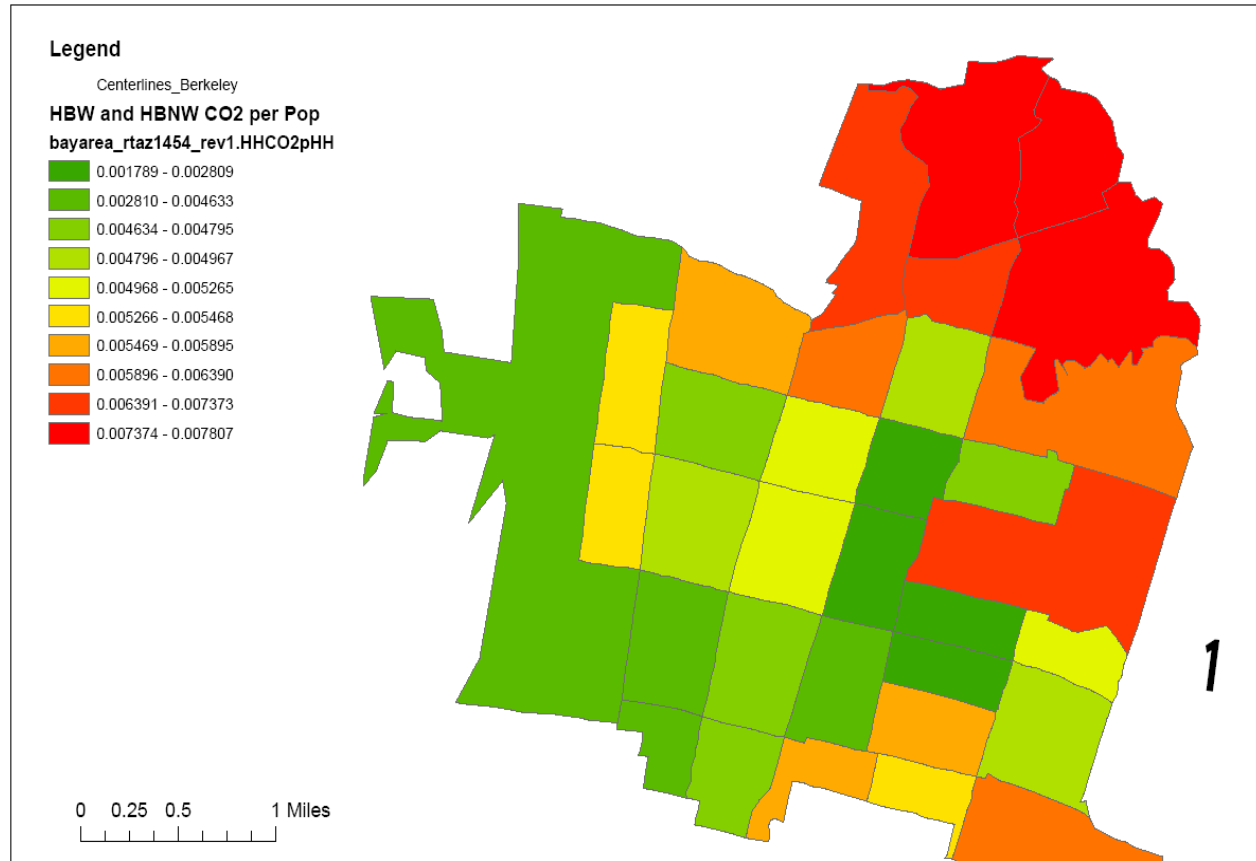
The Transportation Challenge

- Under California's AB 1493, the average motor vehicle in 2020 will emit 16% less CO₂.
- If VMT continues 1980-2000 trend, Berkeley transportation emissions will rise 9%.
- Berkeley residents will need to reduce vehicle travel by 78 million miles per year in 2020 to reach ghg target - 1,658 miles per household/yr, or 4.5 miles per HH/day.

Berkeley household and vehicle population since 1960



CO2 emissions from all home-based vehicle trips per person in Berkeley, by TAZ



Land Use: TDM Conditions of Approval

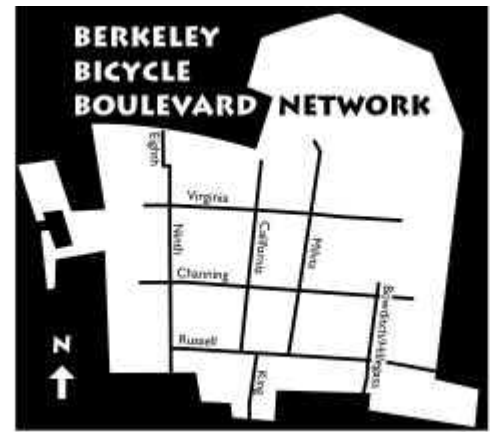
- Provide carshare membership fees (not usage) for all residents.
- Provide 3-4 carshare parking spaces at no cost.
- Unbundle residential parking.
- Do not provide free parking for any commercial tenants/employees.
- Require lessees to offer pre-tax commute benefits.
- Commute benefit shall include a transit subsidy of at least \$2 per business day (CPI adjusted) per employee.

Bicycling and CO₂

- Berkeley Bicycle Plan's goal is to increase commute share from 5.62% to 10%, which would reduce 517 metric tons CO₂/yr.
- If non-work weekday bike trips also double, it would reduce an additional 779 tons of CO₂ per year.



Berkeley Bicycle Boulevards



- NINTH CALIFORNIA/KING
- MILVIA
- BOWDITCH / HILLEGASS
- VIRGINIA
- CHANNING
- RUSSELL



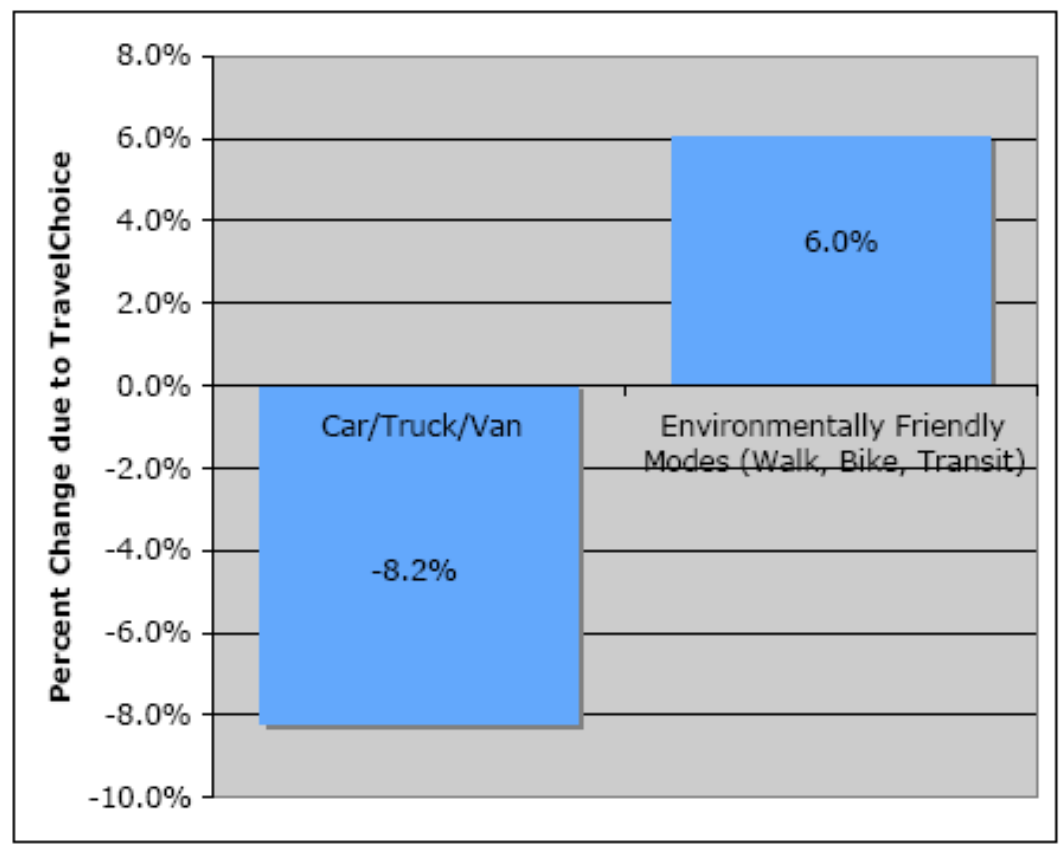
TDM Outreach

- TravelChoice provides locally-customized information on alternative modes.
- Door-to-door outreach to 7,800 households.
- 1,500 travel diary surveys collected.
- Total car trips reduced by 8.2%.
- “Car-as-driver” trips reduced by nearly 14%.
- Bike/walk/transit trips increased by 6.2%.



TDM Outreach: TravelChoice

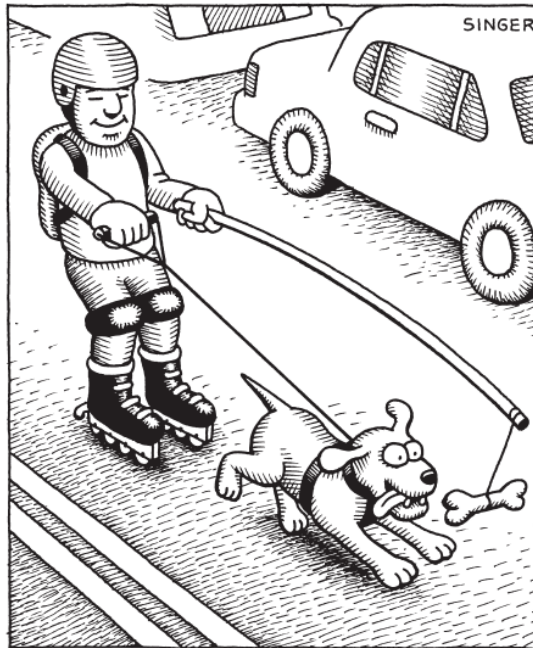
TravelChoice – Berkeley Phase I Behavior Shift



OPTIONS THAT MOVE YOU

Community Outreach: Car-Free Day

How Car-Free Can You Be?



WIN PRIZES!

Pledge to go car free on
International Car-Free Day
Wednesday, September 22, 2004

www.CarFreeBerkeley.org

Universal Transit Passes

- An Eco Pass for all employees in Berkeley could reduce VMT 5,700,000 VMT/yr = 2,839 tons/CO₂/yr = 3% of 2020 target.
- Current Universal Transit Passes in Berkeley:
 - UC Berkeley Class Pass
 - UCB employee Bear Pass
 - City employee Eco Pass
 - 500 low-income residents



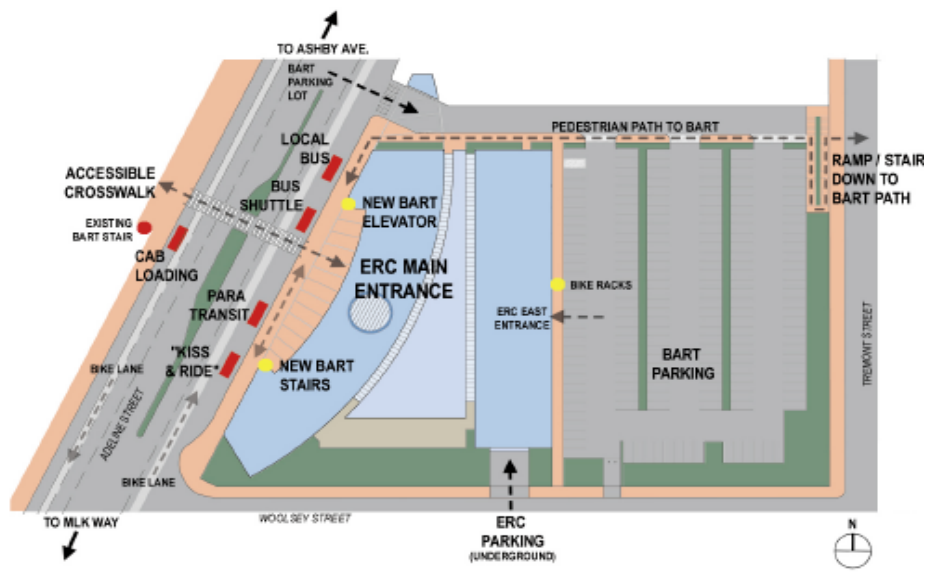
Carsharing & CO2

- Each City Carshare member reduces gas consumption by 59%.
- Each member reduces .044 gal/day = .099 metric tons of CO2/day.
- If 5% of Berkeley drivers (4,455) became carshare members, it would reduce our emissions by 441 metric tons of CO2 per year.



Toyota Prius

Ed Roberts Campus: Universally Accessible TOD



ATTACHMENT B: TRANSPORTATION ENHANCEMENTS TO ASHBY BART STATION / ED ROBERTS CAMPUS
LEDDY MAYTUM STACY ARCHITECTS



Ed Roberts Campus: Universally Accessible TOD

- Accessible transit-oriented community center serving people with disabilities.
- New elevator, stairs w/bike channels, new ramp, ped path, plaza, paratransit area, bus shelter, crosswalk w/in-street lights, audible ped signals.
- Increase transit, bicycle and walking trips by 309 trips per day.



Safe Routes to Schools



Pragmatism vs. Vision vs. Disaster Preparedness

- Incrementalism
- Fundraising takes years & huge effort
- Community Opposition
- Political courage
- Disaster Preparedness - Katrina
- Implementing a Vision – slowly vs. quickly

Thank you

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