

2008 Long Range Transportation Plan

DRAFT



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### To the Citizens of Los Angeles County:

Mobility. It's the linchpin of our economy, but the quality of life for every citizen in Los Angeles County also hinges on our ability to live, work and play. The job of Metro is to make sure that mobility is maintained and improved in the face of growth in population and in the number of cars and trucks in the County. Population is expected to increase by another 2.4 million by 2030, while the number of vehicles has surpassed 7 million a day.

As part of its charge, Metro's 2008 Draft Long Range Transportation Plan charts what transportation improvements are necessary to keep us all moving to the year 2030. Once adopted by the Metro Board of Directors, the Plan will establish priorities for funding a balanced transportation system that addresses transportation needs throughout the County, from closing gaps in the freeway carpool lane network, expanding Metro Rail and bus service, improving arterial capacity and speeds, bicycle and pedestrian improvements, and rideshare opportunities – just to name a few of the initiatives that help reduce congestion.

It is a daunting task. For two decades the Los Angeles region has led the nation in traffic congestion, according to the Texas Transportation Institute. Traffic is getting worse as the region gains population and the volume of goods that moves through our ports, by air and on land, grows exponentially.

And yet, this region also has proven to be the most effective in the country in squeezing more capacity out of our congested streets and highways. No single solution works. It is a multi-pronged approach that includes the Metro Freeway Service Patrol, traffic signalization, freeway ramp metering, carpool lanes, intersection improvements and expanding public transit and other rideshare options that have staved off gridlock.

It is the right approach, but we have to do more. A lot more.

We are falling short of the resources necessary to fund many of the critical projects needed for congestion relief and air quality improvements. And neither Sacramento nor Washington can be counted on to plug the shortfall. That means we need to look to new ways of increasing transportation revenues. Public-private partnerships can stretch limited public funds. Joint development in transit corridors, congestion pricing, and developer mitigation fees are just some of the other options Metro is exploring with a renewed sense of urgency.

At the same time, collectively, we all can make a difference if we change our behavior by using carpools, vanpools and other public transit options. Changes in our travel choices are needed not only to improve mobility, but to reduce Greenhouse Gas Emissions. This 2008 Draft Plan sets the stage by highlighting how Metro, in response to emerging environmental challenges, is actively engaging in policy recommendations and other initiatives through the Board-appointed Ad Hoc Sustainability and Congestion Pricing Committees and Clean Air Task Force.

This 2008 Draft Plan is both a vision and a call to action. Simply put, we can fulfill the vision of developing a transportation system for the 21st Century if we act now to come up with creative ways of generating new revenues to fund future needs. We also need to do more as individuals by using alternatives to driving alone. While the challenges are great, our future quality of life rides on our success.

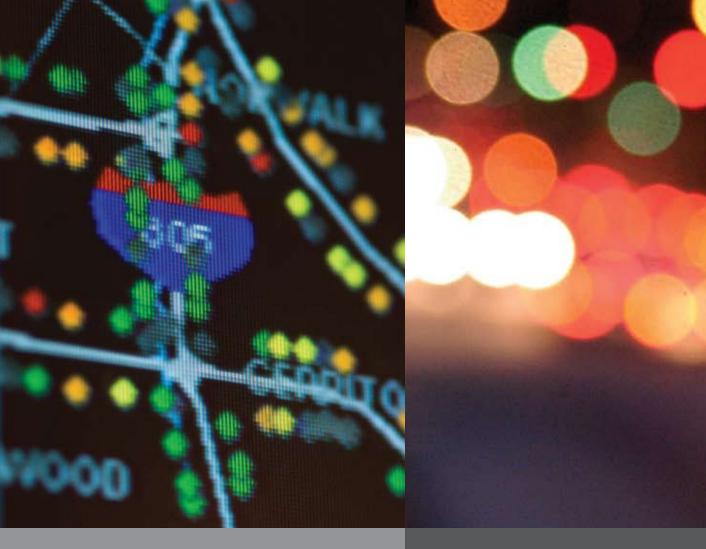
THIS PLAN IS BOTH

A VISION AND A

CALL TO ACTION.

roge

Roger Snoble
Chief Executive Officer



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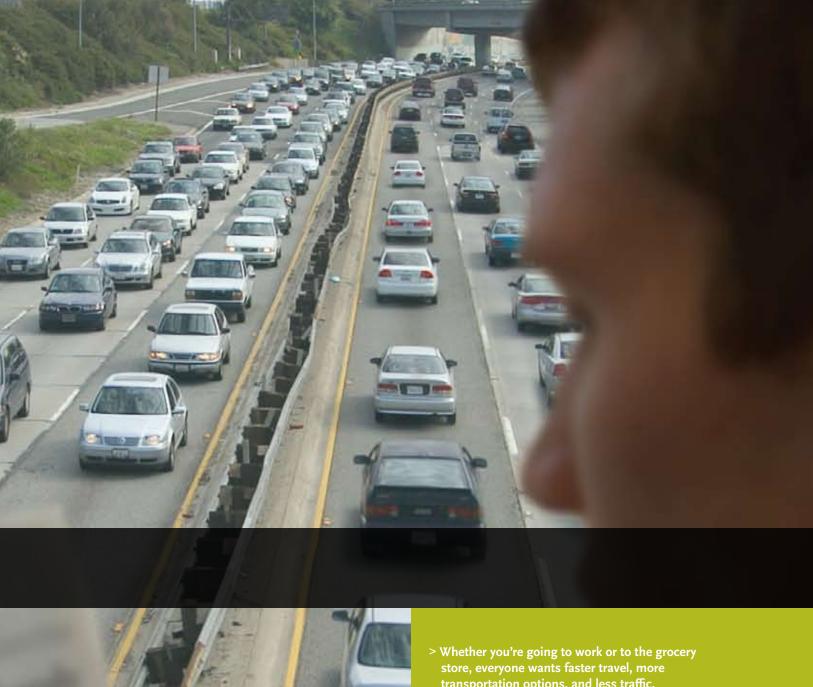
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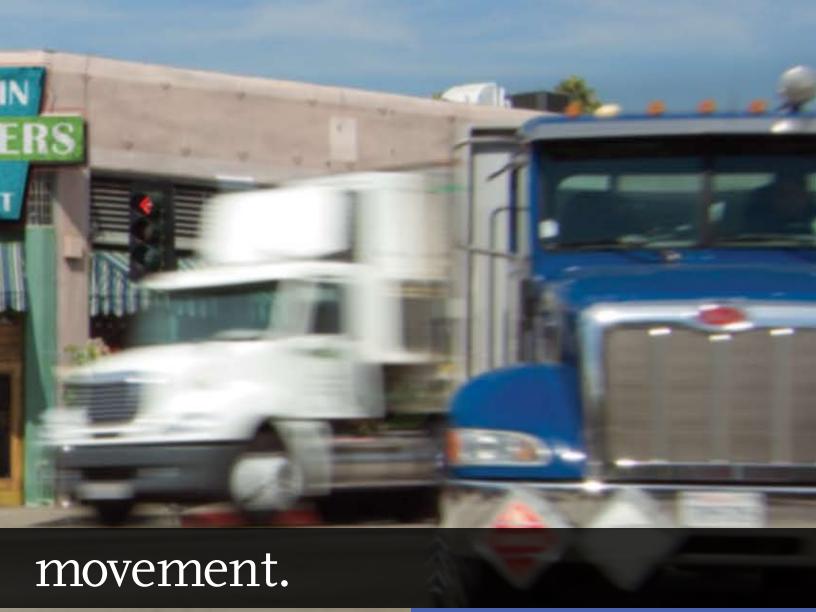
- transportation options, and less traffic.
- > However, freeway traffic speeds could drop an average of 14 miles per hour by 2030, largely because of population and employment growth.
- > This Draft 2008 Plan will invest more than \$152 billion over the next 25 years to develop a balanced transportation system that will provide new options for travel.
- > This Draft 2008 Plan calls for investments to expand the Metro Rail system by another 32 miles and build 160 more miles of carpool lanes.
- > This Draft 2008 Plan also advocates for and implements incentives and disincentives to encourage alternatives to driving alone.









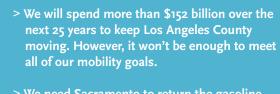




- > Our local ports are the busiest container ports in the country.
- > Truck miles traveled in the County are projected to grow by 33 percent on our crowded freeways by 2030.
- > Our freeways will see more trucks on them in the future. The I-710 Freeway alone carries over 38,000 trucks each day.
- > This Draft 2008 Plan will support improved operational practices and will utilize the most efficient and environmentally friendly means of transporting goods destined for consumption within and outside the County.
- > A regional action plan is being developed that will help our environment, economy and transportation system prosper and ensure that goods make it to market on time.







- > We need Sacramento to return the gasoline sales tax funding the voters ratified twice to improve the transportation system, first in 2002 (Proposition 42), and again in 2006 (Proposition 1A).
- > We also need to use our collective imagination to explore new sources of funding, such as public-private partnerships, congestion pricing strategies, congestion mitigation fees, and all self-help approaches that would help pay for new projects that reduce gridlock and keep us moving.
- > In the end, we must all re-double our efforts to increase transportation funding. Our region's mobility and quality of life depend on it.

FIGURE A

### Highways 1980



### FIGURE B Highways 2008



# We imagined a real system.

Twenty-five years is a long time. However, with vision and commitment, we've made major improvements to LA County's transportation system.

That's the objective of this Draft 2008 Plan. To see how much can be accomplished in 25 years, one only has to look back to 1980. (FIGURES A-D).

### **Highway and Arterials**

In 1980, Los Angeles County had one carpool lane on the El Monte Busway. Since then, we've made a significant number of improvements to our roadway system. We've added 465 miles of carpool lanes that criss-cross the region. More than 100 route miles of major arterials have been added, and over 5,000 intersections have had signal timing equipment installed that keeps major streets moving in a coordinated fashion.

### **Metro Rail and Transitways**

Since 1980, the Metro Rail system has become one of the largest urban rail systems in the United States. The Metro Blue Line began operation in 1990, followed by the Metro Red Line in 1993, the Metro Green Line in 1995, and the

Metro Gold Line in 2003. Today, the 73-mile Metro Rail system moves nearly 260,000 passengers each weekday.

We've also expanded our transitway system an additional 24 miles by opening the Harbor Transitway in 1996 and the Metro Orange Line in 2005.

### **Metro Rapid**

Innovations like the Metro Rapid program have helped provide enhanced bus service throughout the County. Since December 2000, the Metro Rapid program has expanded to operate along 20 corridors and carry 185,000 passengers daily.

### Metrolink

The Metrolink regional commuter rail system was developed, providing long-distance train service throughout the Los Angeles region. Since the first three lines began service in 1992, Metrolink has expanded its service to six counties and 512 route miles. Today, Metrolink carries an average of 43,500 passenger trips daily.

### Fixed Guideways/Transitways 1980



## FIGURE D Fixed Guideways/Transitways 2008



## And we built it.

### **The Bottom Line**

Since 1980, we've seen population grow by 33 percent, with 2.5 million new residents in the County. All of this growth could have overwhelmed our transportation infrastructure. But it didn't. With all of these accomplishments over the past 25 years, we've been able to hold the line on congestion and traffic. The Texas Transportation Institute's (TTI) Annual Urban Mobility Report shows that Los Angeles remains one of the most congested urban areas, but it also shows that our transportation investments have paid off. The TTI study shows that although annual highway delay per person increased by 26 hours between 1982 and 1995, it has increased by only one hour since then. The study also shows our public transportation system now reduces 28.5 million hours of travel time and saves our bus and rail riders over \$450 million in costs.

The past 25 years show that a balanced approach to planning can make a difference in traffic and congestion, even as we add more residents to the County. Our collective challenge is to keep up the good work for the next 25 years and beyond.

## Accomplishments in the Last Seven Years Since the 2001 Plan

### **Public Transportation**

- > Expanded Metro Rapid Program by 18 lines
- > Began service in 2002 on Metrolink's 91 Line
- > Started EZ transit pass program in 2002
- > Opened Metro Gold Line in 2003
- > Opened Metro Orange Line in 2005
- > Began construction on Metro Gold Line Eastside Extension in 2005
- > Began construction on Exposition Light Rail Line in 2006

### Highway

- > Added 89 lane miles to the carpool system including lanes on the I-10, SR-14, US-101, I-210 and I-405
- > Completed the I-210 Extension in 2002
- > Completed five Major Corridor Studies, including the I-710, US-101, I-5, I-405, and I-5/SR-14/SR-138, and initiated the SR-710 North Extension Feasibility Study



# We're creating a better world.

- > In the last 20 years, Metro has built or funded one of the most extensive public transit, carpool, and bicycle lane networks in the country.
- > This Draft 2008 Plan will fund bikeways and transit, which can remove about 14 tons of air pollution and 725 metric tons of greenhouse gas emissions (GHGe).
- Metro will partner with local, state and federal agencies, businesses and community stakeholders to learn and identify new opportunities to meet this challenge.

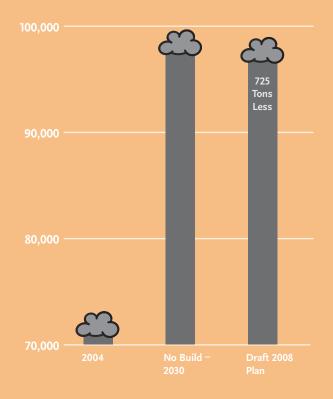
### **Local Air Quality Challenge**

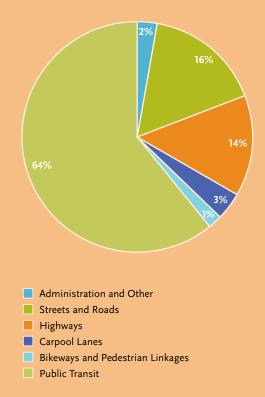
In 2007, Los Angeles had the worst air quality in the nation. Metro has made significant investments in clean air programs, such as the largest compressed natural gas (CNG) bus fleet in the nation. Buses fueled by CNG are up to 97 percent cleaner than diesel buses, because they emit little cancer-causing par ticulate matter. These actions alone have made significant contributions toward reducing air pollution; however, the Los Angeles region still needs to do more.

Through new transit, bicycling and carpool projects, this Draft 2008 Plan reduces annual air pollution by an estimated 14 tons by 2030. Through its public/private partnerships, Metro has helped to build 3,300 units of mixed-income housing at its transit stations, providing the opportunity to reduce car trips and air pollution. The combined investments in transit, transit-oriented development (TOD) with pedestrian and bicycle-oriented streets, and clean goods movement strategies will help the County to improve air quality.

Greenhouse Gas Emissions
METRIC TONS OF CO, EQUIVALENT PER DAY

Metro Funds by Mode





IN THE LAST 20 YEARS, METRO

HAS BUILT OR FUNDED ONE

OF THE MOST EXTENSIVE

PUBLIC TRANSIT, CARPOOL, AND

BICYCLE LANE NETWORKS

IN THE COUNTRY.

### **Global Climate Change Challenge**

In 2004, according to the Department of Energy, the projected growth in vehicle miles traveled (VMT) nationwide will outpace all the projected achievements in vehicle efficiencies and fuel improvements, if left unchecked. Los Angeles County's 10 million residents generated approximately 29 million daily trips in 2004, resulting in almost 160 million daily VMT. By 2030 this would grow to almost 220 million daily VMT. This Draft 2008 Plan will help reduce the growth in daily VMT by almost 1.6 million which is substantial considering the 25 percent growth in population and employment.

Based on the average vehicle, one VMT emits approximately one pound of CO2; therefore, this Draft 2008 Plan reduces GHGe by 725 metric tons of CO2 equivalent (FIG. E). Increases in vehicle efficiency and implementation of congestion pricing may further reduce GHGe.



In November 2006, Assembly Bill 32 (The California Global Warming Solutions Act of 2006) was signed into legislation to reduce the state's GHGe. This Act requires a 25 percent reduction of California's GHGe to 1990 levels by 2020. The California Air Resources Board (CARB) is charged with overseeing AB 32. Since transportation is the largest contributor (41 percent) of GHGe in California, Metro's role in providing transportation solutions to meet the 2020 target reductions will become increasingly important.

At the time of release of this Draft 2008 Plan, CARB was developing methodologies to meet AB 32 targets. Metro is actively participating in CARB's development of the tools, methodologies and processes that will enable Metro to do its share to meet these targets. Until that time, Metro is committed to continuing our work partnering with residential and commercial/retail development at our transit stations, reducing the carbon footprint of our operations and facilities, and participating with local agencies to increase public transit, bicycling, carpooling, and other ridesharing choices.

## Metro's Clean Air and Greenhouse Gas Emissions Reduction Actions

Metro continues to be an environmental leader by investing the majority of its funds (two-thirds) for transit, carpool lanes, ridesharing programs, bikeways, pedestrian linkages (FIG. F) and leveraging transit-oriented development at its transit stations. Increased funding opportunities through pricing will be needed in order to help further reduce the growth in VMT and GHGe.

Metro's Draft 2008 Plan will help reduce a projected 725 metric tons of GHGe annually. Metro's system will include:

- > The largest fleet of CNG-powered buses in the nation;
- > More than II8 miles of fixed-guideway/busway including amenities such as bicycle parking facilities at stations;
- > More than 624 lane-miles of carpool lanes;
- > More than 400 miles of innovative, award-winning Metro Rapid service (30 percent of new ridership formerly drove their cars or are first-time users of transit);
- > More than 1,250 miles of bicycle lanes (a bicycle trip does not have GHGe) with an additional 1,145 miles proposed by local jurisdictions;

- > An electric bicycle commuter program (a 2007 program showed a reduction of 6,000 vehicle trips and 104,000 annual VMT from 39 electric bicycles);
- > Metro's policy of LEED™\* silver-rating minimum for our new facilities, and new developments at our transit stations:
- > The most solar power generated in the transit industry (850 kilowatts) and an additional 1,000 kilowatts planned by 2008 and up to 32,000 kilowatts of capacity;
- > More than 30 TODs providing greater access to transit, walking and bicycling; and
- > The use of recycled materials and low GHG components in the construction of new projects.
- \* The Leadership in Energy and Environmental Design green building standards rating system (certified, silver, gold & platinum) developed by the US Green Building Council.

## **Smart Growth Partnerships are Key to Meeting the Environmental Challenge**

Vehicle fuel efficiency, fuel carbon content, and VMT are the key transportation variables of air pollution and GHGe. However, there is no one source of GHGe and air pollution that can be pinpointed; in fact, there are approximately 10 million sources – each and every one of us. The actions and choices we personally make, whether individually or as a family, directly affect the amount of GHGe produced or reduced.

This Draft 2008 Plan and Metro's environmental stewardship alone cannot meet the region's air quality and GHGe reduction targets. Metro must partner with state, federal, and local jurisdictions in reducing local air pollution and GHGe. The federal government regulates vehicle efficiency and allowable fuel emissions. The state and local city governments have responsibilities for land use and transportation infrastructure which influence VMT.

The Metro Board has established the Ad Hoc Sustainability Committee and the Clean Air Task Force. These groups will help establish an environmental ethic in the agency by developing an Environmental Management System that sets environmental goals and methods to measure the cost impacts and benefits for implementing a sustainability program and climate change strategies. The Metro Board has also established the Ad Hoc Congestion Pricing Committee to develop an operating plan for implementing congestion pricing which could include the collection of tolls to reduce congestion in the urban core while raising revenue.

### METRO MUST CONTINUE

AS AN ENVIRONMENTAL

# LEADER TO REDUCE AIR POLLUTION AND GHGE.

Metro's influence on the following energy conservation actions and measures, in partnership with other agencies and stakeholders, will help reduce congestion, the growth in VMT, air pollution and GHGe:

- > Cleaner-burning fuels and vehicles, and green construction that uses recycled and other less-polluting materials (the Metro Orange Line, located in the San Fernando Valley, used 100 percent recycled materials for the roadway base, and planted thousands of trees to reduce urban runoff – the model for future Metro projects);
- > Demand management (vanpooling, ridesharing, pricing road and parking use to reduce congestion and emissions);
- > Smart growth (mixed-use zoning so people can live near their jobs, schools and the goods and services they need, and get there without relying solely on an automobile); and
- > "Complete streets" (designed to serve drivers, transit riders, pedestrians and bicyclists, as well as seniors, children, and persons with disabilities).

ESTABLISH PERFORMANCE CRITERIA

Identify how the benefits of the Plan and new projects will be measured

EVALUATE
"NO BUILD"
SCENARIO

Measure what the future looks like without new transportation investments

HONOR PAST
COMMITMENTS

Measure what the future looks like with Metro Board funding priorities, including the Constrained 2001 Plan DETERMINE FINANCIAL CAPACITY

- > Estimate how much revenue will be available from federal, state, and local sources
- > Identify cost to operate transportation system
- > Identify remaining revenue available for new projects

# We're moving step by step.



### The Process

As the state-designated transportation planning and programming agency for Los Angeles County, Metro develops a long-range vision for the transportation system that reflects both regional needs and local concerns. This is an update to the 2001 Long Range Transportation Plan that honors past Board commitments and serves as the primary transportation-planning tool to guide future transportation investments in Los Angeles County through 2030. This Draft 2008 Plan is developed through a process that strives for a balanced transportation program that can meet the needs of a growing County.

### How Was The Draft Plan Developed?

The development of this Draft 2008 Plan began with a thorough assessment of the analytical tools and assumptions that are used to evaluate transportation solutions. This includes developing a clear picture of Los Angeles today and coming up with a forecast of the future. This Draft 2008 Plan addresses significant changes that have occurred since the 2001 Plan, including projected growth patterns, the latest technical assumptions, and the uncertain transportation funding environment.

## EVALUATE POTENTIAL NEW PROJECTS

Prioritize new projects and programs based on performance criteria and funding availability

## DEVELOP DRAFT PLAN RECOMMENDATIONS

Metro Board releases Draft 2008 Plan with project and program recommendations

### FINAL PLAN

**PUBLIC REVIEW** 

45 DAY PUBLIC REVIEW PUBLIC REVIEW

**PUBLIC REVIEW** 

PUBLIC REVIEW

Metro Board adopts Final Plan

# INCLUDE IN REGIONAL TRANSPORTATION PLAN

- > 2008 Plan incorporated into SCAG's 2008 Regional Transportation Plan
- > Ensures federal funding of 2008 Plan priorities

During the planning process, data is reviewed which predict where and what the current challenges are on the existing transportation system, where mobility issues could arise in 2030, and how the transportation system could be improved with new investments. This Draft 2008 Plan was built on six key analytical steps as shown above. These are 1) Establish Performance Criteria, 2) Evaluate "No-Build" Scenario, 3) Honor Past Commitments, 4) Determine Financial Capacity, 5) Evaluate Potential New Projects and, 6) Develop Draft Plan Recommendations. These steps are discussed in greater detail in this Draft 2008 Plan's Technical Document.

### **Public Review Process**

The development of this Draft 2008 Plan included public outreach to subregional organizations and local governments to ascertain transportation priorities and unmet needs in their part of Los Angeles County. These are reflected in the Technical Document. Caltrans was also consulted to clarify highway priorities and needs over the next 25 years. This Draft 2008 Plan will be circulated for a 45-day public review and comment period. Metro will conduct outreach meetings during

this review period. Comments will also be solicited through Metro's website, e-mail correspondence, and the 2008 Long Range Plan hotline.

#### What's Next?

This Draft 2008 Plan becomes the guiding policy behind funding decisions on subsequent transportation projects and programs in Los Angeles County. Major capital projects and programs that are identified in this Draft 2008 Plan have priority for future programming of funds. While these projects and programs require further Board approval at various stages of their development, they are priorities for further planning, design, and construction.

This Draft 2008 Plan will be used to signal our mobility priorities to regional, state, and federal governments as we try to get our fair share of transportation funds. Metro's long-range priorities will be included in the Southern California Association of Governments' (SCAG) 2008 Regional Transportation Plan, a six-county plan for the region that is required by the federal government. This will ensure that our transportation priorities are eligible for federal funding.



# We're building today...

## This Draft 2008 Plan lays out a 25-year vision for Los Angeles County's transportation system in 2030.

It is a balanced plan that strategically expands and enhances the current infrastructure and makes the most of our previous transportation resources. It honors past Metro commitments for now and the future, and builds new priorities into the new 25-year Plan.

### This Draft 2008 Plan will:

- > Expand the Metro fixed guideway/busway network to over 110 stations covering nearly 120 miles
- > Expand the Metro Rapid network to provide over 400 miles of service through 35 cities and the County of Los Angeles
- > Continue the commitment to operate and expand the Metrolink commuter rail system
- > Continue the commitment to operate the paratransit bus system
- > Expand and improve bus and rail transit services throughout the County
- > Add 160 carpool lane-miles that fill in critical gaps along the carpool lane network

- > Build freeway interchanges and carpool lane connectors
- > Expand the Freeway Service Patrol
- > Fund arterial, signal synchronization, transportation demand management, bikeway, pedestrian, transit capital and transportation enhancements through the Call for Projects
- > Promote rideshare and other Transportation Demand Management strategies that provide options to driving alone

Can we build everything needed? No. This Draft 2008 Plan is a constrained plan that balances projected costs of running this transportation system with a realistic forecast of future revenues. This Draft 2008 Plan also lays out Strategic Unfunded transit and highway projects and programs that reflect the remaining unmet transportation needs for Los Angeles County. These Strategic Unfunded projects and programs, including higher funding for the Call for Projects, could be funded in the event additional transportation resources become available and the Recommended Plan projects are moved to an optimal implementation schedule.

# and planning for tomorrow.

This Draft 2008 Plan provides mobility for Los Angeles County's future by providing new travel options that will serve us for the next 25 years and beyond. It will improve highway speeds by almost 15 percent and arterial speeds by 10 percent countywide over the no-build scenario. However, meeting the travel needs of over 12 million people in 2030 will require more than new infrastructure and programs outlined in this plan. If we hope to make tomorrow's traffic better than today's, we must all make significant changes in our personal and collective travel behavior.

## As a County, we must advocate for and implement incentives and disincentives to encourage alternatives to driving alone, including:

- > Smart growth
- > Transit Oriented Development
- > Congestion pricing/toll lanes or other roadway pricing options
- > Increased occupancy requirements for carpool lanes
- > Transit/Rideshare incentives
- > Flex-schedules and home offices

- > Restructured transit for maximum efficiency
- > Increased use of Transportation Demand Management
- > Promotion of more Transportation System Management
- > Use of new technology, including the internet, to help reduce the need for travel and car trips during the peak period
- > Energy efficiency and conservation/sustainability
- > "Complete Street" design

Only with these kinds of substantial shifts in our everyday behavior can we hope to maintain and even improve traffic in the future. Past Metro studies have shown that we can maintain today's level of mobility and double transit ridership if we pursue these types of strategies. This should be the ultimate objective for all of us as we move forward in the 21st century.



# We're using resources wisely...

This Draft 2008 Long Range Transportation Plan lays out a 25-year strategy for keeping Los Angeles County moving and is based on a balanced checkbook.

That means that incoming revenues are balanced with the cost of building, operating, and maintaining the transportation system. This Draft 2008 Plan identifies a \$152.5 billion investment in Los Angeles County's transportation system through 2030 (FIG. I). However, even this isn't enough to keep pace with growth.

### **Revenue Assumptions**

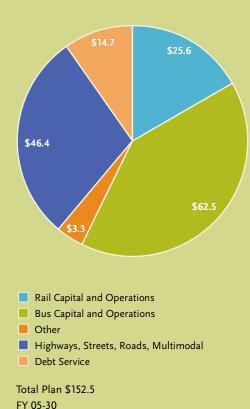
This Draft 2008 Plan is funded with more than 45 sources of federal, state and local revenue (FIG. G). A majority of funding is locally generated through two half-cent voter initiatives, Propositions A and C. These and other local sources of revenue such as passenger fares, advertising, real estate rentals, and bonding account for 65 percent of Metro's 25-year financial forecast. State funding such as the California voter-approved initiative known as Proposition 42, Proposition 1B, and the Traffic Congestion Relief Program (TCRP) funds is assumed to help fund

past commitments on the highway and rail program to cover rising construction costs and inflation. It is important to note that the delivery and implementation of all projects and programs are dependent on the availability of these revenues. Major changes in local, state, or federal policies, or unanticipated shifts in the state and national economy, would impact the implementation of this Draft 2008 Plan.

Transportation funds borrowed by the state to close the State General Fund deficit the last few years have impacted the short-term availability of funding to Metro. This Draft 2008 Plan reflects continuation of the funding for projects based on the priorities established in the Board-adopted 2001 Plan.

Revenue from federal programs is assumed to continue. This Draft 2008 Plan assumes Metro will be able to draw down the remaining balance of the Eastside Full Funding Grant Agreement and that current federal formula and discretionary programs will continue. For forecasting, Metro bus and rail fares are assumed to increase every

## Use of Funds



### GURE I

## Phasing of Committed Funds ESCALATED \$ IN BILLIONS

Committed Projects	FY 05-09	FY 10-14	FY 15-19	FY* 20-25	FY 26-30	PLAN TOTAL
Bus						
Operations	7.0	8.3	9.8	13.4	12.9	51.3
Capital	1.9	1.9	2.1	2.8	2.4	11.2
Subtotal	8.8	10.2	11.9	16.2	15.3	62.5
Rail and Transit	Corridors					
Operations	1.5	2.0	2.3	3.2	3.1	12.1
Capital	2.7	3.8	2.0	3.2	1.8	13.5
Subtotal	4.1	5.7	4.3	6.4	5.0	25.6
Highway, Street	s, Roads, I	Multimod	al			
Operations	3.3	4.2	4.5	6.0	5.5	23.6
Capital	5.8	6.5	2.4	4.1	4.2	22.8
Subtotal	9.1	10.6	6.9	10.1	9.7	46.4
Debt Service						
Subtotal	1.4	2.1	3.1	4.3	3.8	14.7
Other						
Subtotal	0.5	0.5	0.6	0.9	0.8	3.3
Total Committed	23.9	29.2	26.9	37.8	34.6	152.5

<sup>\*</sup> FY 20-25 is a six-year period.

Numbers may not add up due to rounding.

**Funds** 

## but more are needed.

two years at a rate that will result in a 33 percent fare box recovery beginning in 2011. Forecasted fare revenues in this Draft 2008 Plan reflect the changes made to all fares and fare media.

### **Key Commitments**

Metro has programming authority for transportation funds in Los Angeles County and has a say in almost three-quarters of the County's transportation funding. Cities and other public entities fund other projects and programs with federal, state, and local funds. About \$63.4 billion is projected to operate bus and rail services countywide. Highway, roadway, signal, bicycle and pedestrian programs will require another \$23.6 billion to operate (FIG. 1).

### **Address the Current Funding Crisis**

The process for developing this Draft 2008 Plan has demonstrated that substantial shortages of transportation funds exist in Los Angeles County. Metro has identified additional projects and programs which would require new revenue sources in order to be implemented.

These projects and programs constitute the Strategic Unfunded Plan which is discussed on page 33. New funding could add projects and services and/or accelerate projects identified for funding in this Draft 2008 Plan.

Metro's commitment to maintain and improve Los Angeles County's transportation system will require wise investments based on funding availability and strategies for obtaining new or increased funding.

- > Metro will be vigilant in protecting existing state and federal funding.
- > Metro will explore new transportation revenues such as public-private partnerships, congestion pricing and a congestion mitigation fee.

All potential new funding options will be explored with a renewed sense of urgency. The Metro Board and Congestion Pricing Ad Hoc Committee will set the direction for determining the feasibility for any strategy to help our region come together for securing the funding to keep Los Angeles County moving for the next 25 years.





- New Metro Rail services will be opening on the Metro Gold Line Eastside Extension to East Los Angeles and the Exposition Line to Culver City.
- > The Crenshaw Boulevard transit corridor is planned along Crenshaw Boulevard to LAX.
- > Metro Rapid will expand to cover 400 miles of service, with potential new corridors under study.
- > Local bus service will be restructured through Metro Connections to increase ridership and reduce costs.
- > Metro will continue to invest in Metrolink Commuter Rail Service.

The public transportation system in Los Angeles County will provide services over the next 25 years that provide faster, more convenient ways to travel without a car.

Los Angeles County's transit providers operate over 4,000 buses and serve 1.6 million bus passengers daily. Metro Rail and the Metrolink commuter train system combined carry over 300,000 passengers daily and operate over 293 miles of rail. Metro operates the second largest bus system and the largest clean fuel fleet in the United States. Metro also administers funding for fixed-route transit, dial-a-ride and paratransit programs throughout the County.

This Draft 2008 Plan proposes to build six major transit corridor projects. Please refer to the Public Transportation map (FIG. K) and table (FIG. L) to locate this Draft 2008 Plan's Recommended projects. Figure M summarizes the Strategic Unfunded Plan projects. The first tier includes projects that have significant analysis and could be considered for new funding initiatives. The second tier identifies other projects that have little study completed, but may prove to provide mobility benefits upon further analysis. Strategic Unfunded projects are listed in rank order in this Draft 2008 Plan Project Performance Analysis.

### **Metro Rail**

The Metro Rail network will continue to mature and attract riders as new services are added. The Eastside Extension of the Metro Gold Line is scheduled to open to Atlantic and Pomona Boulevards in 2009. The first segment of the Exposition light rail line to Culver City will open in 2010. This will expand the Metro Rail network to over 80 stations covering nearly 88 miles. Phase II of the Exposition Line could add an additional seven miles. A transit alignment along Crenshaw Boulevard is also planned that could be light rail or bus rapid transit.

The Strategic Unfunded Plan includes a number of other rail projects that could be considered if additional funding becomes available. These projects have conceptual alignments and costs that could be the subject of further study to determine their feasibility, alignment and cost.

### **Busways**

Busways that emulate rail on rubber tires by using buses on dedicated transit lanes are an important element to the County's transit system. The Metro Orange Line, in the San Fernando Valley between the North Hollywood Metro Red Line Station and the Warner Center Transit Hub, began operation in October 2005. Articulated 60-foot CNG Metro Liner buses operate along the 14-mile long route and serve 13 stations. This Draft 2008 Plan provides funding for extension of the Metro Orange Line to the Chatsworth Metrolink Station and/or bus speed improvements on arterials in the east San Fernando Valley. This Draft 2008 Plan also calls for the implementation of bus-only lanes on Wilshire Boulevard by 2013.



THE PUBLIC TRANSPORTATION

SYSTEM IN LOS ANGELES COUNTY

WILL PROVIDE SERVICES

OVER THE NEXT 25 YEARS THAT

PROVIDE FASTER, MORE

CONVENIENT WAYS TO

TRAVEL WITHOUT A CAR.

### **Metro Rapid**

Metro Rapid provides faster regional bus travel throughout Los Angeles County. Key features of Metro Rapid that make it faster and easier to use include simple route layouts, frequent service, fewer stops, low-floor buses to facilitate boarding and alighting, color-coded buses and stations, headway-based schedules, and bus signal priority.

When complete, the Metro Rapid network will provide over 400 miles of service through 35 cities and the County of Los Angeles. In addition to Metro, Santa Monica's Big Blue Bus, Culver City, and Torrance Transit will also operate Metro Rapid Service. Performance benefits of the current network include a 25 percent reduction in passenger travel times on most routes, and a 25 percent increase in passenger capacity for nearly the same operating cost.

As a result of increased traffic congestion on local arterials, Metro has seen a 12 percent decline in average bus speeds since the mid-1980s. To reverse this trend, Metro has been working in partnership with the Los Angeles Department of Transportation (LADOT) and the Los Angeles County Department of Public Works (LACDPW) to prepare the Los Angeles Bus-Speed and Street Design Improvement Study. The study will evaluate ways to improve bus speeds including signal priority and locations where speeds could be improved through the establishment of bus-only lanes.

### **Public Transportation**

EICLIBE

Recommended Plan			
	\$ IN MILLIC ESCALATED TO YEAR OF EXPEND		OPEN YEAR
Buses			
Metro Bus Fleet of 2,819 1,5	\$ 6	010	2005-2030
Muni Bus Fleet of 1,596 <sup>2,5</sup>	3,	305	2005-2030
Bus Rapid Transit			
San Fernando Valley North-South (Metro Orange Line Canoga Extension, and/or arterial bus speed improvements) <sup>5</sup>	\$	298	Phase I – 2016 Phase II – 2026
Wilshire Boulevard Bus Rapid Transitway Construction <sup>5</sup>		200	2026
Metro Rail			
Metro Gold Line Eastside Light Rail Transit (LRT) <sup>5</sup>	\$	899	2010
Exposition LRT Phase I (from 7th Street Metro Center to Culver City) <sup>5</sup>		862	2010
Exposition LRT Phase II (from Culver City to Santa Monica) <sup>5</sup>	1,	632	2016
Crenshaw Boulevard Corridor 3,5	1,	057	2025
Other Miscellaneous Public Transportation Projects			
Access Services Incorporated (paratransit)	\$ 3,	511	2005-2030
Metrolink-subsidy <sup>4</sup>	2,	288	2005-2030
New airport bus division <sup>5</sup>		75	2018
People Mover to LAX funded by others		0	2030
Rail rehabilitation and replacement	3,	953	2005-2030
Transit project contingency/new rail yards/additional rail cars	1,	400	2009-2026
Early Years Environmental Studies		64	2007-2010
Union bus division <sup>5</sup>		85	2010
Public Transportation Draft Plan Estimated Total	\$ 25,	639	

 $<sup>^{\</sup>rm 1}$  2,819 40-Foot Equivalent Metro Buses in 2030. The actual number of buses operated is 2,331.

FIGURE M

### Strategic Unfunded

### Tier 1: Currently Under Planning Study or Environmentally Cleared/Route Refinement Study

Regional Connector

Metro Subway Westside Extension to La Cienega

Harbor Subdivision Alternate Rail Technology (ART) between LA Union Station and Metro Green Line Aviation Station

Metro Subway Westside Extension from La Cienega to City of Santa Monica (Rank equal to project above)

Burbank/Glendale Light Rail from LA Union Station to Burbank Metrolink Station

Metro Gold Line Eastside Extension from Atlantic/Pomona Station to City of Whittier (At-grade or Aerial Light Rail)

Metro Gold Line Foothill Extension from Sierra Madre Villa Station to Azusa

Metro Green Line Extension from Redondo Beach Station to South Bay Galleria

Metro Gold Line Foothill Extension from Sierra Madre Villa Station to Montclair

Metro Green Line Extension between Norwalk Station and Norwalk Metrolink Station

Metro Green Line Extension to LAX (Not ranked)

West Santa Ana Branch ROW Corridor Maglev between LA Union Station and Santa Ana Metrolink Station (Capital and operating costs to be funded by others)

### Tier 2: Candidates for Further Project Definition

Metro Red Line Extension from North Hollywood Station to Burbank Airport Metrolink Station

Vermont Corridor Subway

"Yellow" Line Light Rail between Metro Red Line North Hollywood Station and Regional Connector

I-405 Corridor Busway between Metro Orange Line Sepulveda Station and Metro Green Line Aviation Station

"Silver" Line Light Rail between Metro Red Line Vermont/Santa Monica Station and City of La Puente (Rank equal to project above)

Metro Green Line Extension from LAX to Expo Santa Monica Station

SR-134 Transit Corridor BRT between Metro Red Line North Hollywood Station and Metro Gold Line Del Mar Station (Rank equal to project above)

Metro Green Line Extension between South Bay Galleria and Pacific Coast Hwy Harbor Transitway Station

### **Countywide Transit Programs**

Metro Rapid Bus Expansion Corridors Beyond Funded Plan (Not ranked)

Additional Metrolink Expansion Beyond Funded Plan (Not ranked)

Additional Sub-regional projects not included in Metro's performance evaluation (see Technical Document)

 $<sup>^{2}</sup>$  1,596 40-Foot Equivalent Muni Buses in 2030. The actual number of buses operated is 1,660.

 $<sup>^{3}</sup>$  Technology to be determined; cost assumes LRT.

 $<sup>^{4}</sup>$  Includes rehabilitation; does not include \$1,015 million in Metrolink fares and other non-Metro funds.

<sup>&</sup>lt;sup>5</sup> Capital costs only.

<sup>&</sup>lt;sup>6</sup> Fiscal Year (July to June)

### **Local Bus**

The local bus system provides the largest share of public transportation options in Los Angeles County. In 2005, Metro and municipal bus operators provided service to over 1.6 million passengers on an average weekday. Local buses also provide feeder services by carrying passengers to regional transit facilities like rail lines and Metro Rapid stations.

This Draft 2008 Plan will promote improvements in the quality and reliability of local bus service over the next 25 years. Both municipal operators and Metro will increase the use of higher capacity and articulated buses to expand system capacity while limiting operating costs. Meanwhile, Metro will complete the transition to alternative fuel buses, operating the largest fleet of compressed natural gas buses in the country. Both Metro and municipal operators will participate in the move toward zero-emission transit vehicles through advanced technologies such as hybridelectric and fuel-cell propulsion systems. Passenger convenience will be a focus, as bus operators implement a Universal Fare System/Transit Access Pass that will enhance seamless transfers between systems using "smart card" technology that allows value to be credited or debited at fareboxes and ticket vending machines.

Metro Connections is an Operations initiative that guides Metro's Service Sector work to increase ridership and improve efficiency of the bus system. Through Metro Connections, the five Sectors coordinate efforts to modify the bus system to reduce delays, simplify connections and adjust service levels in major travel corridors.

#### Metrolink

The Metrolink system provides high-speed, long-distance regional commuter rail service traveling at a system average (including stops) of 41 mph over 512 route miles. Metrolink carries an average of 43,500 passenger trips and removes an average of 24,500 auto trips each weekday.

This Draft 2008 Plan will help Metrolink continue to deliver high quality commuter rail service by maintaining the commitments of the 2001 LRTP. This plan provides \$3.3 billion of total expenditures of which \$2.288 billion is Metro's subsidy, including approximately \$50.3 million per year for operations, and \$22.5 million per year for rehabilitation. The funding amounts for capital vary by year, but on average the plan includes \$14.9 million per year for expansion capital through 2030.

As part of the Strategic Unfunded Plan element, Metrolink is seeking \$225 million in additional funding to implement service expansion and safety enhancements. To increase service levels, Metrolink will need to purchase rolling stock, expand the Eastern Maintenance Facility, and construct or upgrade sidings and crossovers to increase speed. Parking needs at the stations are a responsibility of local jurisdictions, and are an eligible use for Call for

### **Call for Projects**

FIGURE N

### **Transit Capital Recommendations**

\$ IN MILLIONS

Constrained Plan
\$16.4 m/yr in 2008 dollars
\$464

Strategic Plan
\$7.9 m/yr in 2008 dollars
\$240

TRANSITION TO ALTERNATIVE

FUEL BUSES, OPERATING THE

LARGEST FLEET OF

COMPRESSED NATURAL GAS

BUSES IN THE WORLD.

Projects funds. Two important safety programs have also been initiated. The "sealed corridor" program will identify rail corridors with several at-grade crossings and work to restrict vehicular access to the right-of-way along the entire stretch. The "crash energy management" program will work to minimize the impact of collisions on the passenger compartments of trains. In spring 2008 the Metro Board will consider a 10-Year Plan of specific capital projects for Metrolink. Funding for the projects will be allocated as part of the annual budget adoption process, consistent with this Draft 2008 Plan.

Metro recently completed a cost/benefit study of its funding for Metrolink. The study provided an analysis of the subsidy allocation formula for Metrolink operations. Metro staff will seek changes in the formula to better correlate Metro's subsidy with Los Angeles County resident ridership. Such a change in the formula would reduce Metro's share of operating subsidy to Metrolink. Metro could reinvest these savings to increase service on high-productivity Metrolink lines.





- > This Draft 2008 Plan invests \$46 billion to close gaps in the carpool system, improve congested freeway interchanges, build carpool lane "connectors," and manage freeway incidents.
- > TSM strategies will help improve traffic flow through better management and operation of existing transportation facilities.
- > Freeway Service Patrols (FSP) will clear up accidents and breakdowns on crowded freeways.
- Operational improvements like FSP, freeway ramp metering, and signal timing reduce more than 57 million hours of travel.
- > The Big Rig Service Patrol program will expand to respond to freeway incidents caused by disabled heavy-duty vehicles on congested freeway corridors.

This Draft 2008 Plan focuses on closing gaps in the carpool lane system, using technology to maximize roadway capacity, and clearing traffic accidents and stalled vehicles from our crowded freeways quickly.

While the average Angeleno spends 72 hours in traffic per year, Texas Transportation Institute finds that the rate of delay has actually slowed down. Since 1995, we have seen annual delay per traveler drop by one hour. Most major cities across the country have seen driver delay increase during that period. Operational improvements like the Freeway Service Patrol, freeway ramp metering, and signal timing reduce almost 57 million hours of travel and save almost \$1.1 billion for the regional economy, greater savings than any other area in the country.

While our transportation investments help curb congestion, the challenge of continued growth means this Draft 2008 Plan must find new ways to stay one step ahead. Moving toward the completion of a countywide system that promotes carpools and vanpools, this Draft 2008 Plan proposes to add 160 carpool lane-miles to the 464 carpool lane-miles that exist today, filling in critical gaps along some of the most congested corridors. Please refer to the Recommended Plan Highway Map (FIG. 0) and table (FIG. P) to locate the projects included. Figure Q summarizes the Strategic Unfunded Plan projects. Firsttier projects have undergone significant analysis and could be candidates for new funding initiatives. Second-tier projects have undergone little analysis but may prove to provide mobility benefits upon further analysis. Strategic Unfunded projects are listed in rank order in this Draft 2008 Plan Project Performance Analysis.

Detailed studies will look at future opportunities to improve and expand the carpool lane system beyond this Draft 2008 Plan's funding commitments. Local jurisdictions, the County, and Caltrans have identified additional unfunded priorities. For a list of these projects, see the Technical Document.

This Draft 2008 Plan also identifies funding for carpool lane connectors that will allow carpools and transit vehicles to move from one freeway to another without having to merge with mixed-flow traffic. These will reduce the need to weave across multiple lanes of traffic and ultimately reduce the potential for traffic accidents. To reduce bottlenecks on our busiest freeways, this Draft 2008 Plan also proposes interchange improvements at critical choke points where major freeways come together and result in traffic delays.

More and more, keeping our freeways moving will rely on Transportation System Management (TSM) strategies that maximize the capacity of our existing and planned roadways. Over the next 25 years, this Draft 2008 Plan proposes the continued development and deployment



of TSM programs that range from freeway service patrols that remove disabled cars from freeways, to high-tech signal timing and real-time traveler information that help motorists plan their travel more intelligently. This Draft 2008 Plan also supports continued development of Intelligent Transportation System (ITS) technologies that monitor real-time traffic flow and congestion points on freeways, and inform the traveling public about congestion locations and alternate routes through changeable message signs, special radio frequencies, and radio traffic reports.

### **Metro Freeway Service Patrol**

This Draft 2008 Plan also focuses on reducing delay caused by traffic incidents (disabled vehicles and accidents) which are responsible for as much as 43 percent of the travel delay on our freeways. The Freeway Service Patrol (FSP) program, jointly managed by Metro, the California Highway Patrol and Caltrans, operates a fleet of tow trucks that patrol over 400 miles of Los Angeles County freeways to provide assistance, free of charge, to stranded motorists. By removing disabled vehicles from the freeway, FSP tow trucks help reduce traffic delays and the probability of further accidents and congestion caused by impatient drivers and onlookers stuck in traffic. Metro will work with Caltrans and other partners to expand the benefits of providing FSP-type assistance for larger tractor-trailer sized vehicles. Services like the Big Rig Demo on the

I-710 Long Beach Freeway can efficiently address congestion caused by increasing freight/goods movement in heavily traveled truck freeway corridors.

### Call Box

In 1988, the Los Angeles County Service Authority for Freeway Emergencies (SAFE) was formed to provide motorist services and manage the call box system within Los Angeles County. The Kenneth Hahn Call Box system currently includes 4,500 call boxes throughout the County that receive approximately 5,000 calls per month from motorists. Call box usage has been decreasing as cell phone use increases. More and more motorists are using their cell phones to call 911 to report an emergency along the freeway or to call for assistance. As a result, the call box system will be restructured from the primary means of requesting roadside assistance to a secondary safety-net system for motorists. In addition, the entire call box system will be upgraded from an analog to a digital-based wireless system.

### **Other Motorist Services**

SAFE will continue to develop and enhance its #399 motorist-aid service. This service allows motorists to use their wireless phones to request non-emergency, roadside assistance by dialing #399. Services include towing, connection to an automobile club, and reporting freeway

#### Highways

FIGURE P

Recommended Plan			
	\$ IN MILL ESCALATED TO YEAR OF EXPEN		OPEN YEAR
Freeway Improvements and Gap Closures	ESCALATED TO YEAR OF EXPEN	DITURE	
I-710 Freeway Improvements: Pacific Coast Hwy to Downtown Long Beach	\$	7	2008
Extend SR-90 Freeway to halfway between Culver Bl & Mindanao Way		24	OPEN
SR-138 Widening (7 of 13 segments)		215	2007-2023
SR-71 Freeway: I-10 to Mission Bl		115	2027
SR-71 Freeway: Mission Bl to Rio Rancho Rd		330	2029
Carpool Lanes			
I-405 Carpool Lanes: I-105 to SR-90	\$	50	OPEN
I-405 Carpool Lanes: SR-90 to I-10		170	2010
I-405 SB Carpool/Auxiliary Lane: Waterford St to I-10		50	2009
I-405 NB Carpool Lane: Greenleaf St to Burbank Bl		6	OPEN
SR-60 Carpool Lanes: I-605 to Brea Canyon Rd		153	2010
I-10 Carpool Lanes: I-605 to Puente Av		191	2012
I-10 Carpool Lanes: Puente Av to Citrus Av		182	2015
I-10 Carpool Lanes: Citrus Av to SR-57		192	2015
I-5 Carpool Lanes: SR-14 to SR-118		89	2009
I-5 Carpool Lanes: SR-118 to SR-170		311	2012
I-5 Carpool Lanes: SR-170 to SR-134		610	2012
SR-14 Carpool Lanes: Pearblossom Hwy to Avenue P-8		41	OPEN
SR-14 Carpool Lanes: Avenue P-8 to Avenue L		120	2027
I-405 NB Carpool Lanes: I-10 to US-101		950	2015
I-5 Carpool & Mixed-Flow Lanes: I-605 to Orange County Line		1,155	2017
Freeway Interchanges			
US-101 Freeway & Ramp Realignment to Center St	\$	41	OPEN
I-5/SR-126 Interchange Reconstruction (Phases I & II)		72	2008
I-5/Carmenita Rd Interchange Improvement		252	2014
SR-57/SR-60 Mixed-Flow Interchange		475	2029
Carpool Connectors			
SR-57/SR-60 Carpool Lane Direct Connector	\$	71	OPEN
I-405/US-101: Connector Gap Closure near Greenleaf St		46	OPEN
I-5/SR-14 Carpool Lane Direct Connector		157	2013
I-5/I-405 Carpool Lane Direct Connector		330	2029
Other Freeway Improvements			
Freeway Project Contingency	\$	818	2009-2030
Soundwalls		979	2005-2030
Freeway Rehabilitation			
Caltrans administered SHOPP	\$	4,602	2005-2030
Highway Operations			
Freeway Service Patrol	\$	716	2005-2030
SAFE		205	2005-2030

hazards. SAFE will also be implementing the Los Angeles regional 511 Traveler Information System. The goal of 511 is to provide users with information to make informed travel decisions through an automated phone system and companion website. Types of information available include real-time freeway traffic, transit, rideshare and other general traffic information. SAFE and Metro will continue to evaluate other motorist aid services and projects for potential implementation within Los Angeles County.

soundwalls, which could cost over \$2 billion to design and build. This Draft 2008 Plan allocates \$979 million for soundwall projects. Metro will use its "Soundwall Implementation Policy" to prioritize funding and construction. To expedite construction of soundwalls and reduce cost, Metro is piloting the construction of one soundwall project using the Design-Build process where a contractor designs and builds the soundwall under one contract. This project will be analyzed to identify development cost and delivery time savings.

### **Soundwall Retrofit Program**

Another challenge facing Metro will be to construct freeway soundwall projects, where warranted, for major highway projects to reduce freeway noise levels. Currently, there are 230 miles of freeway that are eligible for

FIGURE Q

### **Strategic Unfunded**

### Tier 1: Currently Under Planning Study or Environmentally Cleared

SR-710 Gap Closure (Assumes partial funding by fees, public/private partnerships or tolls)

Freeway Operational Improvements (Auxiliary Lanes), for example:

- > I-405 NB Auxiliary Lane: Hawthorne Bl to I-105
- > I-405 SB Auxiliary Lane: Rosecrans Av to Inglewood Av

US-101 Corridor: Add carpool lane in each direction between SR-27 (Topanga Canyon BI) and SR-2 in Downtown Los Angeles and restripe for mixed-flow lane in each direction between SR-27 and Ventura County Line

US-101: Add carpool lane in each direction between SR-27 and the Ventura County Line (*This would be in addition to the mixed-flow lane proposed in the project above*) (Rank equal to project above)

I-5 Carpool and Mixed-Flow Lanes: I-605 to I-710

I-5 HOV and Truck Lane Improvements: SR-14 to Kern County Line (Assumes partial funding by fees, public/private partnerships or tolls)

I-710 South (Rank equal to project above) (Assumes partial funding by fees, public/private partnerships or tolls)

SR-14: I-5 to Kern County Line (Carpool and mixed-flow improvements)

SR-138: I-5 to SR-14 (Add 2 mixed-flow lanes in each direction)

SR-138: Pearblossom Hwy to San Bernardino County Line: Widen to 4 lanes (Rank equal to project above)

High Desert Corridor (Assumes partial funding by fees, public/private partnerships or tolls)

Additional Soundwalls Beyond Funded Plan

### Tier 2: Candidates for Further Project Definition

I-605 Carpool Lanes: I-210 to I-10 I-10 Carpool Lanes: Lincoln Bl to I-5 SR-57 Carpool Lanes: SR-60 to I-210 SR-60 Carpool Lanes: US-101 to I-605

I-5/I-10 Interchange I-5/I-405 Interchange I-5/SR-2 Interchange I-5/SR-134 Interchange I-5/SR-14 Interchange

I-5/SR-170 Interchange

US-101/SR-170 Interchange

US-101/SR-170/SR-134 (complete two connectors) Interchange

I-405/US-101 Interchange

1-5/1-605 (partial HOV connector – from west to south and from west to north)

I-10/I-605 (partial HOV connector – from east to south and from west to south)

SR-60/I-605 (partial HOV connector – from east to south and from east to north)

SR-91/I-110 (partial HOV connector – from east to south and from east to north)

SR-91/I-605 (all) HOV connectors

I-105/I-605 (partial HOV connector – from west to north and from west to south)

Additional Caltrans corridors not included in Metro's performance evaluation (see Technical Document)

Additional Sub-regional projects not included in Metro's performance evaluation (see Technical Document)



This Draft 2008 Long Range Plan proposes funding an ambitious transportation program of over \$152 billion through 2030 and will continue funding for those projects already identified in Metro's 2001 Long Range Transportation Plan.

Recent increases in the cost of construction materials combined with reduced projections for transportation funding have impacted the schedule to complete some projects and precluded Metro's ability to add important new projects to this Draft 2008 Plan. This Draft 2008 Plan identifies "strategic" priorities for projects and programs that are regionally significant but require new revenue sources to be implemented.

The Tier I Strategic Unfunded projects are considered high-priority projects and are shown in Figures R and S. The Tier 2 Strategic Unfunded projects are also included in this Draft 2008 Plan as candidates for additional study or funding in the longer-term (see pages 26 and 31).

- > Metro will explore innovative funding options.
- > New revenues would first be used to accelerate the schedules for projects and programs funded in this Draft Plan.
- > Additional new revenues could be used to fund projects in the Tier 1 Strategic Unfunded Plan.

THE STRATEGIC UNFUNDED PLAN
IDENTIFIES ADDITIONAL
TRANSIT, HIGHWAY, AND CALL
FOR PROJECTS MODAL CATEGORIES
THAT COULD BE FUNDED
IF NEW REVENUE
BECOMES AVAILABLE.









- > Half of all vehicle trips in the County occur on arterial roadways.
- > By 2030, traffic on local roadways is projected to increase by 30 percent.
- > Congestion is projected to increase over 200 times faster than new roadway capacity.
- > This Draft 2008 Plan focuses on maximizing the arterial system's capacity through technology and capital investments.
- > ITS will be integrated with local street and transit systems to provide motorists with real-time information on travel options.

### This Draft 2008 Plan focuses on improving arterials by adding capacity and using technology to increase the efficiency of our roadway network.

During the last decade, significant improvements were made to our roadway system, including the widening of over 100 route miles of major arterials, signal timing and coordination at over 5,000 intersections and deploying advanced technology to monitor and manage real-time traffic flow.

SCAG indicates that traffic on local streets is projected to increase 30 percent by 2030. There are many likely reasons, including continued growth in population and jobs, spillover from increasing freeway congestion, and more goods movement-related truck traffic. Over the next 25 years, this Draft 2008 Plan will focus on improving arterial traffic flow by implementing capital improvements and better use of advanced technology. Through the Call for Projects, Metro will help local governments improve traffic flow by providing funding for major arterial projects that are beyond the resources of local agencies. The projects funded in the Regional Surface Transportation Improvements (RSTI) category are major capital improvements like street widenings, realignments, grade separations and freeway ramp modifications. There will also be stepped up efforts to integrate the freeway and arterial systems by funding interchange improvements and improving the efficiency of the roadway network through operational improvements to the signal system. This Draft 2008 Plan contains funding for grade separation projects such as the Alameda Corridor East, to minimize arterial-freight conflicts.

### **Countywide Significant Arterial Network**

In 2006, Metro, local jurisdictions, transit operators and subregional agencies identified a regional arterial network and developed a performance monitoring program for Los Angeles County called the Countywide Significant Arterial Network (CSAN). The CSAN was developed to assist in determining the performance of the system, guiding future transportation planning, and helping target arterial improvements through the Call for Projects. In 2008, Metro will begin implementing the CSAN by performing the first cycle of traffic data collection.

## Transportation System Management – ITS, Signal Synchronization and Bus Speed Improvements

This program focuses on improving arterial traffic flow without major capital investment, by taking advantage of Intelligent Transportation Systems (ITS), which relies on computer technology to manage traffic on a multijurisdictional basis and by optimizing signal timing and providing bus priority on a system of arterials. This Draft

2008 Plan calls for synchronizing and optimizing signal timing, sharing traffic and signal data among jurisdictions using the Los Angeles County Information Exchange Network (IEN), the City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) System and other jurisdictions' traffic control systems. ITS projects like these help coordinate arterial signals and provide incident management and information about traffic jams, alternate routes and transit arrival times. This Draft 2008 Plan also promotes state-of-the-art bus signal priority systems that can integrate with regional traffic management systems. This is important to the expansion of the Metro Rapid program and the enhancement of other high-volume regional transit services.

### **Call for Projects**

Through the Call for Projects, Metro has focused its funding on implementing the arterial ITS network. At the street level, Metro and the local jurisdictions have interconnected and synchronized thousands of intersections on the most heavily traveled arterials in Los Angeles County. With the City of Los Angeles Department of Transportation (LADOT), Metro supports the continued expansion of the ATSAC system, including the upgrade to LADOT's Adaptive Traffic Control System (ATCS) technology, which monitors conditions and adjusts signals in real time. Metro also supports the continued expansion of Los Angeles County's IEN and its integration with the City of Los Angeles' ATSAC system as well as adding more jurisdictions throughout the County to the IEN to provide real-time traffic management.

### **Information Exchange Network**

In order to realize benefits beyond specific improvements, Metro, in partnership with the Los Angeles County Department of Public Works and local jurisdictions, is deploying the County Information Exchange Network (IEN). The IEN allows the collection and distribution of arterial street-level operational and planning data to facilitate signal coordination between and through jurisdictions. The system also provides the capability for smaller agencies to share limited control of their traffic control system to another agency for off-hours support. Thus, a single agency can serve as the after-hours coordination center for neighboring agencies.

Metro will continue funding and supporting the expansion and updating of local jurisdictions' signal synchronization programs and adding new functionality. Examples include further enhancement and expanded deployment of IEN interfaces with local jurisdictions' traffic control systems, adding wireless and fiber optic communication, video feeds and improving traveler information.

### **Call for Projects**

FIGURE T

### **Regional Surface Transportation Improvements**

\$ IN MILLIONS
ESCALATED TO YEAR OF EXPENDITURE

 Constrained Plan
 \$30.4 m/yr in 2008 dollars
 \$885

 Strategic Plan

 \$12.2 m/yr in 2008 dollars
 \$368

FIGURE U

### **Transportation System Management**

\$ IN MILLIONS
ESCALATED TO YEAR OF EXPENDITURE

Constrained Plan
\$35.3 m/yr in 2008 dollars
\$1,012

Strategic Plan
\$14.6 m/yr in 2008 dollars
\$442

THIS PLAN FOCUSES ON IMPROVING ARTERIALS BY ADDING CAPACITY AND USING TECHNOLOGY

TO INCREASE THE EFFICIENCY OF OUR ROADWAY NETWORK.

### **Bus Speed Improvement Program**

Metro also is committed to enhancing the Bus Speed Improvement Program (BSIP) by establishing closer coordination between local traffic operating agencies and transit operators on jointly developed projects which increase transit operating speeds and improve total person-trip movement in the region. Metro will continue to fund arterial-specific signal projects to improve transit running times by developing an interface between the County IEN and BSIP, partnering with the local municipal transit operators, and expanding signal priority on Metro Rapid Services.

### **Arterial Pavement System Preservation**

Metro has accessed the pavement conditions and costs reported by all jurisdictions with public roads in Los Angeles County. This methodology assists Metro in coordinating with the County's local jurisdictions to advocate for maintaining current funding levels and to seek additional dollars to address this critical under-funded need, which is currently estimated at about \$1.2 billion in 2007 dollars.





- > Our local ports are the busiest container ports in the nation, and when combined, the fifth busiest in the world, handling more than 40 percent of all US containerized trade.
- > LAX is the second busiest air cargo airport in the US and sixth busiest air cargo airport in the world.
- > Some of the most heavily used freeways in the County, including I-5, SR-60, SR-91, I-605, and I-710, are also used to move goods to our stores and warehouses.
- > Metro is working with other stakeholders to develop regional solutions that promote new infrastructure and operational improvements.

Efficient, reliable, and safe transportation of goods is critical to the County's mobility and continued economic growth and quality of life.

More and more, the movement of freight affects all of us. Whether you are stuck at a rail crossing or in traffic with double-trailer semis, expecting an overnight shipment from a mail-order company, or one of the hundreds of thousands of people employed in the industry, keeping passengers and freight moving is a tall order. This Draft 2008 Plan seeks to promote comprehensive planning that will lead to investments and operational improvements that can keep people, freight, and our economy moving without sacrificing the environment or our quality of life.

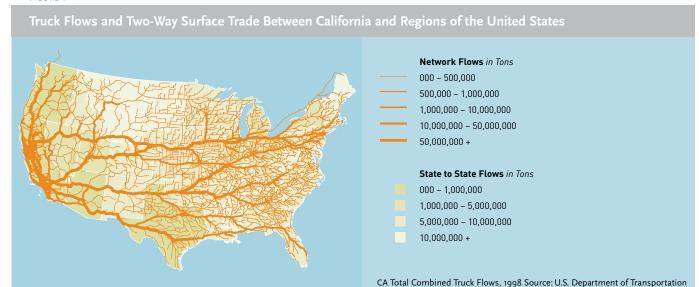
Over the last decade, the County has positioned itself as a primary freight destination and distribution center for the rest of the country. As a major economic driver, the freight industry employs about 400,000 people countywide and moves more than \$340 billion worth of goods annually over the County's transportation system. In fact, 43 percent of the seaborne container traffic for the entire nation moves through the Ports of Los Angeles and Long Beach.

Freight is distributed over a massive transportation network consisting of 915 miles of freeways and highways, two world-class seaports, two major railroads, two regional commercial freight airports, and the busiest intermodal rail facilities in the nation. The Alameda Corridor eliminated 200 railroad-roadway intersections, enhancing safety and relieving congestion, and now speeds delivery of \$100 billion in goods throughout the County. While the County's transportation network has accommodated the growth in freight, it has been pushed towards its limits.

And there's more coming. Studies indicate the County's trade with the rest of the world is expected to increase dramatically over the next 25 years. This increase in international trade is projected to more than double the number of containers currently being handled at the Ports of Los Angeles/Long Beach, from 15.7 million 20-foot Equivalent Units (TEUs) in 2006 to 42.5 million TEUs by the year 2030. This trade activity, in turn, will result in daily port-generated truck traffic increasing from 60,000 in 2005 to 140,000 truck trips per day by 2030 despite significant efforts by the Ports to increase on-dock rail capacity and usage. Equally important is the corresponding increase in goods that travel from manufacturers, warehousing and distribution centers that serve the domestic and local markets and account for about two-thirds of all freight movement in the region.

### **Multi-County Goods Movement Action Plan**

Metro will continue to address freight movement on a regional basis by working with the neighboring counties, Caltrans, and SCAG to finalize and implement a Multi-County Goods Movement Action Plan (MCGMAP). This regional study will result in a comprehensive Action



Plan designed to identify freight transportation needs and potential solutions to handle the demands of future freight growth throughout the muti-county region. This study has involved other public and private sector freight movement industry stakeholders. Preliminary indications are that over \$47 billion will be needed for the Los Angeles/Long Beach/Inland Empire corridor through 2030 to accommodate added freight movement and mitigate its environmental and community impacts on the region's freeway and rail networks. In November 2006, California voters approved Proposition 1B, including an estimated \$2.0 billion Trade Corridor Improvement program. The California Transportation Commission (CTC) adopted Guidelines for the program that call for CTC approval in April of 2008. Representatives of the multi-county area will be aggressively seeking a fair share of the statewide program and will then turn their attention to Washington, DC as Congress prepares to reauthorize national transportation policy, including its approach to Goods Movement, in 2008.

Implementation of recommendations from the MCGMAP will enable the County to manage the demands from, and identify mitigation measures for, the projected growth in the freight industry. Metro, in partnership with Caltrans and Orange, Riverside, San Bernardino, and Ventura Counties, will be initiating the Environmental Justice and Outreach Study for the MCGMAP. This project will examine in greater detail the environmental and community impacts of goods movement and will develop strategies to mitigate those impacts.

Metro, in conjunction with funding partners including the Gateway Council of Governments, Caltrans, the Ports, and the I-5 Joint Powers Authority, is preparing to environmentally clear the I-710 Corridor Project EIR/EIS that addresses congestion from truck traffic. The North County Combined Corridors and other studies underway have provided recommendations to mitigate truck traffic. These studies will complement the analysis conducted for the MCGMAP.

Call	tor	Prol	ects
		رحس	

FIGURE

### Goods Movement Program

\$ IN MILLIONS
CALATED TO YEAR OF EXPENDITURE

	ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
\$27.3 m/yr in 2008 dollars	\$ 801
Strategic Plan	
\$11.7 m/yr in 2008 dollars	\$ 354

Other projects and programs are moving ahead. The Alameda Corridor East Project currently under construction will provide congestion relief to drivers along a 35-mile stretch of the San Gabriel Valley by constructing 19 bridges or underpasses and improving the operation of 36 other railroad intersections. Metro will continue its commitment to the Alameda Corridor East project to fund 17 percent of the 2007 project cost estimate. In addition, The Ports of Los Angeles and Long Beach are conducting an Advanced Cargo Transportation Technology Evaluation and Comparison Study which will analyze the potential of advanced technologies for moving containers from the Ports to nearby rail intermodal facilities.

Other priorities include: 1) coordinating with the subregions to ensure consistent corridor planning and project development; 2) supporting environmental and environmental justice initiatives that promote quality of life; 3) supporting regionally significant freight movement projects such as the further investigation of an inland port strategy, shuttle trains, and the accelerated implementation of clean air technologies; 4) improving highways/roadways utilized for goods movement and increasing track capacity along rail lines for both freight and commuter rail trains; and, 5) determining the appropriate freight movement policies and financing strategies (i.e., public/private partnerships, container fees, and user fees directed at potential dedicated freight guideways) jointly with freight stakeholders.





- > The RIITS Network enables multimodal transportation agencies to effectively coordinate their operations, respond to incidents, and improve the operation and management of their systems.
- > The RIITS Network will provide continuous and real-time traffic congestion and incident data flow to the Los Angeles 511 Traveler Information System.
- > The RIITS Network supports the implementation of corridor management, congestion pricing, and goods movement initiatives and strategies.

ITS system management improves mobility by efficiently and effectively coordinating multimodal transportation systems.

### **Intelligent Transportation Systems (ITS)**

ITS is the application of computer-based traffic management technology used to optimize freeway operations and signal timing, provide transit vehicles with traffic signal priority, provide real-time management of transit dispatching operations, and provide the traveling public with real-time information about congestion locations, accident sites, and alternate routes. The purpose of ITS technology is to improve the flow of traffic along existing streets and highways. According to the U.S. Department of Transportation, peak period travel time can be reduced by up to 11 percent through the implementation of ITS improvements.

### **Los Angeles County Regional ITS Network**

At the regional level, the objective of ITS technology deployment is to maximize the efficient use of existing surface transportation systems and infrastructure through multimodal transportation system integration and operational data sharing in real-time. Metro developed the Regional Integration of Intelligent Transportation Systems (RIITS) Network as a common communication network for multimodal intelligent transportation systems in Los Angeles County and across county boundaries.

The RIITS Network has integrated Caltrans District 7's freeway management system, LADOT's traffic signal control system, the California Highway Patrol's incident reporting system, and the Metro bus and rail systems. The continual expansion of the RIITS Network facilitates information exchange in real-time along freeways and city streets for transit and emergency services. Current efforts include the addition of transit data from Long Beach Transit and Foothill Transit, and signal status and arterial traffic congestion data from Los Angeles County's Information Exchange Network (IEN).

The RIITS Network is an essential ITS tool for multimodal data exchange and retrieval, enabling transportation agencies to coordinate and improve the operation and management of their services. Near real-time traffic congestion and incident information is also made available to the public through the Real Time Traffic web page hosted by *metro.net* and private sector Information Service Providers (ISPs). ISPs collect transportation data from a variety of sources, integrate and then distribute the data through the Internet, personal data devices, portable global positioning system (GPS) units, kiosks, radio and television.

### **Los Angeles County Regional ITS Program**

The Regional ITS Program, established in 2005 and administered by Metro's Countywide Planning and Development Department, implements the Metro Boardapproved Los Angeles County ITS Policy and Procedures. The Program coordinates with data-contributing partner agencies and manages, operates, and maintains the RIITS Network. The data-contributing partner agencies and Metro have entered into an Inter-Agency Traffic Operation and Management Memorandum of Understanding and formed a Configuration Management Committee. This committee guides the development of multimodal interface standards and ensures that the RIITS Network, which constitutes the functional Los Angeles County Regional ITS Architecture, is in conformance with the National ITS Architecture and Standards.

The Program has accomplished system redundancy to ensure that the network provides continuous congestion and incident data flow on a 24/7 basis to support the implementation of Los Angeles County's 511 traveler information program. The reliability provided by system redundancy benefits transportation and transit agencies which utilize data from the RIITS Network for system performance evaluation, planning and policy analysis, and the enhancement of traffic management operations.

Metro will be developing a specific long range plan for the Regional ITS Program to identify new transportation initiatives, further define ongoing commitments, expand the Network through partnerships with new data source agencies, and develop a data archiving system to enable the Regional ITS Program to continue its valuable multimodal data management role. The development of a Regional ITS Long Range Plan will provide a blueprint for the expansion of the RIITS Network and support Metro's corridor management, congestion pricing, and goods movement planning efforts.

ACCORDING TO THE U.S.

DEPARTMENT OF TRANSPORTATION,

PEAK PERIOD TRAVEL TIME

CAN BE REDUCED BY UP TO

11 PERCENT THROUGH

IMPLEMENTATION OF

ITS IMPROVEMENTS.



## **Demand Management**



- > Significant mobility improvements require major shifts away from driving alone.
- Metro will promote alternative forms of transportation through the creation of new employer rideshare programs.
- > The Metro Call for Projects will promote land use/transportation coordination.
- Metro will continue to promote more TODs that make public transit an increasingly real option for a new generation of Angelenos.

The success of this Draft 2008 Plan depends heavily on whether Transportation Demand Management strategies can move us into carpools, reduce our need to drive alone, and even change our ideas about where to live and work.

Studies have long shown that significant improvements in reducing traffic jams and enhancing mobility rely on major shifts away from driving alone. Transportation Demand Management (TDM) strategies are designed to promote alternatives to drive-alone vehicle travel. They include improving the efficiency of existing transportation infrastructure, eliminating or combining vehicle trips and encouraging the deployment of new technologies that support these objectives. These TDM programs are generally programmed through the biennial Call for Projects process and through an ongoing countywide rideshare program. Other strategies are geared toward promoting smarter growth in the future that encourage more housing and job development in areas where the transportation network can adequately serve them.

The following are examples of TDM projects and programs supported by this Draft 2008 Plan:

- > Countywide TDM Implementation through the Call for Projects
- > Regionwide Metro Rideshare and Commute Services Programs
- > Metro Parking Policy
- > Smart Growth Initiatives
- > Congestion Management Program

### **Countywide TDM Implementation**

TDM efforts through 2030 will continue to focus on the most cost-effective strategies for decreasing the demand on the transportation system by providing incentives for use of transit, carpooling, vanpooling, bicycling, walking, shortening trips and avoiding trips altogether.

### **Call for Projects**

FIGURE X

### **Transportation Demand Management**

\$ IN MILLIONS

Constrained Plan
\$9.7 m/yr in 2008 dollars
\$295
Strategic Plan
\$4.9 m/yr in 2008 dollars
\$147

### **Metro Rideshare Program**

For almost 30 years, commute services have been provided to residents and employers in Los Angeles County. Metro's countywide rideshare program assists commuters in finding alternatives to driving alone. This program includes:

- > Transit, carpool and vanpool information and ridematching;
- > Outreach to Los Angeles County employers to encourage ridesharing to employment sites;
- > Incentive and promotional programs such as specialized transit-pass programs geared toward business;
- > Vanpool support programs; and
- > Market research on travel behavior and service performance to improve options.

The countywide rideshare program will continue to enhance transportation alternatives for employers and commuters. This Draft 2008 Plan provides \$350 million of total expenditures that will focus on providing new state-of-the-art, web-based rideshare and transit trip planning information systems to continually improve the efficiency and effectiveness of these services. New programs will enhance outreach to employers through improved transit pass programs and programs that reward employees for trying an alternative to driving alone. Individual commuters will be targeted through campaigns, promotions, improved information on alternative transportation services and web-based travel information. This Draft 2008 Plan will also focus on implementing strategies to expand vanpool use. Finally, further research on service performance, customer satisfaction and general public opinion will be conducted to develop strategies for enhancing transit and other rideshare services offered to Los Angeles County commuters.

As part of the Strategic Plan element, the rideshare program is seeking \$105 million (2008 dollars) in additional funding to implement service expansion and increase market research efforts. Enhancements to the rideshare program would include vanpool service growth, increased outreach, new programs to further encourage ridesharing and specialized market research.

### **Metro Parking Policy**

Metro recognizes that to support a high level of demand for ridesharing and to make the transition to and from public transit as seamless as possible, adequate parking must be available for patrons to easily move from one mode to the next. Providing parking facilities at key locations is critical to accommodate the growth in usage as the public responds to TDM strategies. Our existing Metro Station parking program helps manage parking resources and anticipates future parking demand. Metro will continue to investigate other options, including technological solutions, to increase the supply of parking facilities in key sites to make this alternative as attractive as possible. This approach may also utilize privately owned

parking facilities and develop parking facilities that are located near freeways with carpool lanes or busways. Continuous work is needed to plan the growth of the network of park-and-ride lots that are safe and convenient for travelers to use.

### **Smart Growth Initiatives**

Studies throughout the United States confirm the strong link between land use planning and the transportation system. Research shows that travel and congestion can be substantially reduced by creating better jobs-housing balances, walkable communities, and encouraging the development of TODs. Integrating land use and transportation decisions has profound benefits for the community and the transportation system. This shift in the way we grow will be critical, given the projected growth of over two million more residents in Los Angeles County by 2030.

The Call for Projects Program will prioritize projects that promote improved land use and transportation connections. This will help local governments fund transportation projects that can mitigate the transportation impacts of projected population growth.

In addition, Metro will continue to promote more TODs through public-private partnerships. Metro will explore opportunities to integrate smart land use developments at a number of existing and new stations. An example is the Wilshire/Vermont Metro Red Line station development which will integrate a middle school, childcare facility, general commercial space, and housing. Future developments are planned at several new rail stations, including the Wilshire/Western, Westlake/MacArthur Park, and Hollywood/Vine Metro Red Line stations.

### **Congestion Management Program**

In accordance with State statute, Metro implements the Congestion Management Program (CMP) for Los Angeles County. The CMP monitors congestion within the County, promotes actions to minimize congestion, and links local land use decisions with their impact on the regional transportation system.

The CMP Deficiency Plan is one of the most important tools for ensuring effective coordination of land use and transportation decisions. As part of its approval of the 2003 Short Range Transportation Plan, the Metro Board authorized a nexus study to explore the feasibility of working with local jurisdictions to implement a congestion mitigation fee. If implemented, a Congestion Mitigation Fee Program would generate new revenue for local governments to build transportation projects that address future regional congestion. If the final study report is adopted, Metro will work with local jurisdictions to identify local projects with a regional benefit that would be funded through the Fee Program.



## **Bicycles and Pedestrians**



- > There are more than 1,250 miles of bikeways in Los Angeles County.
- > Local agencies have identified bicycle projects that would almost double the current bikeway system.
- > Metro will focus on improving bicycle access to transit hubs.
- > Coordinating pedestrian links between transit and the user's final destination is critical to an effective transportation system.
- > Metro will focus on improving pedestrian linkages to bus centers and rail stations.

# This Draft 2008 Long Range Plan promotes the development of bicycle facilities and pedestrian improvements throughout Los Angeles County.

Bicycle and pedestrian programs are critical components of a successful transit system, as transit riders should be able to access buses and trains without having to drive a vehicle to and from transit stations. The sustainability of our transportation system depends upon the interface between modes.

### **Bicycle Programs**

According to SCAG's State of the Commute report, 21 percent of commute trips are five miles or less. National survey results state that three out of four shopping trips are less than five miles in length, 37 percent of students live less than a mile from school, and 20 to 25 percent of all peak-hour congestion is the result of parents driving their children to and from school. These are trips that can easily be made by bicycle if safe conditions exist.

Bicycling produces zero emissions as no fossil fuels are used. Each trip made by bicycle replaces up to two-and-a-half times the energy consumed by an automobile trip. A bicycle trip can eliminate the "cold start" of a vehicle engine and reduce GHGe and energy consumption.

### **Bicycle Transportation Strategic Plan**

This Draft 2008 Plan will help implement the 2006 Metro Board-adopted Bicycle Transportation Strategic Plan (BTSP). It describes a vision for Los Angeles County to improve bicycling as a viable transportation mode. The BTSP outlines a bicycle infrastructure that improves overall mobility, air quality and access to opportunities. It also shifts the focus in countywide bicycle planning from long arterial bikeways to improvements for bicycle access to 167 bike-transit hubs throughout the County. Focusing improvements at bike-transit hubs is a relatively simple way to link bikes with transit and extend the reach of transit without the use of a car. It increases the viability of public transportation and facilitates ridership without a huge investment in infrastructure and right-of-way.

In 2006, the inventory of existing bicycle facilities in the County totaled 1,252 miles, including facilities such as the Metro Orange Line Bike Path, San Gabriel and Los Angeles River Bike Paths, Whittier Greenway Bike Path, Ballona Creek Bike Path, Santa Monica and Venice Boulevard bicycle lanes and hundreds more miles of bicycle lanes and routes. Another 1,145 miles of bikeway projects have been proposed in local agency bicycle plans that would nearly double the current bikeway system. Further, Metro identified 53 gaps in the inter-jurisdictional bikeway system that can be filled by on-street or off-street bicycle facilities. The BTSP emphasizes the accommodation of bicycles in new roadway and bridge designs.

Bicycle parking at transit stations is essential to encourage the use of bicycles with transit. Bicycle parking at employment centers and local destinations also help reduce the expanding need for costly automobile parking, particularly in dense urban areas where space is limited. As many as 20 bicycles can be parked in the space of one automobile.

Local governments will continue to build bicycle facilities using their Transportation Development Act (TDA) Article 3 and Proposition C funding, while Metro will provide regional funds through the Call for Projects. Eligible projects include on- and off-street bicycle improvements, bicycle parking, safety education, bicycle racks on buses, bicycle stations and other bicycle access improvements. Other sources of funds are Safe Routes to School and State BTA (Bicycle Transportation Account) Grant funds. Metro recognizes the importance of local bicycle planning and strongly encourages cities to develop their own plans. Metro provides technical assistance to develop those plans and qualify them for BTA funding.

### **Pedestrian Priority Improvement Program**

Nearly all trips within Los Angeles County, regardless of purpose, include a non-motorized component. Although almost 9 percent of all the trips within Los Angeles County are exclusively pedestrian trips and about half of these are walking trips to and from home to work, the pedestrian system can be improved further. All non-motorized transport modes should connect to an efficient, aesthetically pleasing and safe pedestrian system that enables a person to successfully complete a trip. Motorized transport modes should seamlessly link to the pedestrian system in a way that efficiently allows people to access primary and secondary destinations as well as to make connections to the public transit system.

Several factors combine to create a pedestrian-friendly environment. These include: a wayfinding signage system, ease of access to destinations from the sidewalk network, appropriate street-crossing safety features, and easy connection to public transport modes. Physically attractive features and amenities facilitate the flow of pedestrian movement and will encourage people to walk.

The primary challenge to improving the quality of the pedestrian environment is retrofitting the existing built form to make walking a more viable option for more people, more often. Since much of the built form is orientated to access by automobiles and the set of development standards and regulations governing land development are primarily focused on maintaining auto accessibility, significantly increasing the share of non-motorized trips will require time, coordinated policy and program development, and a sustained funding approach. Many cities in Los Angeles County have begun to initiate

### Call for Projects

FIGURE Y

### **Bicycle Program**

\$ IN MILLIONS

ESCALATED TO YEAR OF EXPENDITURE Constrained Plan \$12.2 m/yr in 2008 dollars \$ 241 Strategic Plan \$12.2 m/yr in 2008 dollars \$ 368

FIGURE Z

### **Pedestrian Program**

\$ IN MILLIONS

ESCALATED TO YEAR OF EXPENDITURE

Constrained Plan	
\$12.2 m/yr in 2008 dollars	\$ 241
Strategic Plan	
\$8.4 m/yr in 2008 dollars	\$ 295

### Transportation Enhancements Program

\$ IN MILLIONS

\$ 84

ESCALATED TO YEAR OF EXPENDITURE

Constrained Plan	
\$2.4 m/yr in 2008 dollars	

### THE SUSTAINABILITY

OF OUR TRANSPORTATION

SYSTEM DEPENDS

### UPON THE INTERFACE BETWEEN MODES.

activities to improve the livability of their neighborhoods, including reducing traffic congestion and improving overall mobility. The linkages between development and transportation modes are a critical factor in improving overall mobility while maintaining the economic and social viability and attractiveness of these communities.

Metro's Pedestrian Priority Improvement Program is designed to achieve a qualitative improvement in the pedestrian environment in Los Angeles County. The approach focuses on the development of public policy and adoption of appropriate regulatory standards and targeted funding to develop more safe, connected and walkable pedestrian environments that promote non-motorized transport as a viable alternative for an increasing share of trips made by residents and visitors of Los Angeles County.



# **Subregional Partners**



- > The nine subregions have identified their transportation challenges and unfunded priorities.
- > A mobility project implemented in one subregion may also benefit the other subregions due to regional travel patterns.
- > Understanding each subregion's mobility challenges and needs can improve coordination throughout the regional system and expand the benefit of subregional enhancements.
- > Strengthening the subregional partnerships will improve the flow of communication and increase the responsiveness to issues.

## Los Angeles County is a huge region with more than 10 million residents in 89 local jurisdictions.

Each of these local governments has distinctive transportation needs, challenges, and opportunities. Although they share common concerns, particularly when it comes to transportation, air quality, economic vitality, and quality of life, the nature and scale of transportation issues vary considerably across the County. For planning purposes and to more effectively address the unique challenges affecting differing areas of the County, nine geographic subregions have been identified (FIG. BB). The subregions are comprised of the geographic area's local government representatives and deal with a variety of policy issues, including long-range planning.

Los Angeles County is expected to grow by at least two million residents by 2030. As a result, each subregion will face new mobility challenges that arise from this population growth and the resultant demands on the transportation system. This growth will also increase demands for a variety of mobility improvements, including an expansion of the capacity of our local and regional transportation system.

### Arroyo Verdugo

The Arroyo Verdugo subregion sits against a backdrop of the San Gabriel Mountains, on the northern edge of the Los Angeles Basin. This subregion covers 60 square miles and is home to three cities.

### **Central Los Angeles**

The Central Los Angeles subregion is located in the center of Los Angeles County. This subregion covers 126 square miles and is home to 13 local communities.

### **Gateway Cities**

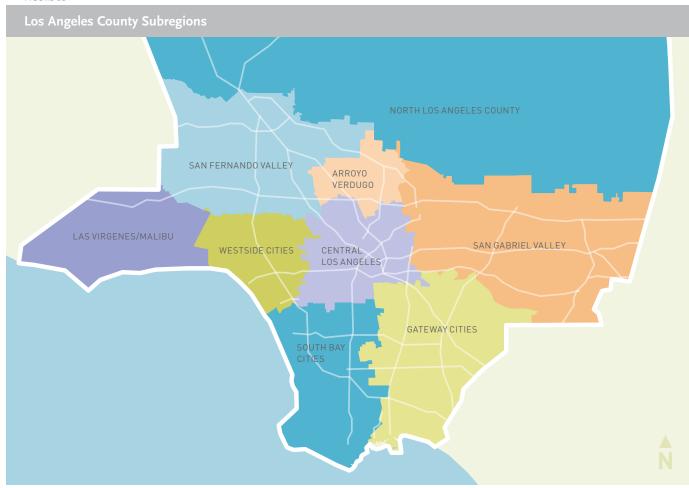
The Gateway Cities subregion is located at the southeastern end of Los Angeles County. This subregion covers 226 square miles and is home to 27 cities.

### Las Virgenes/Malibu

The Las Virgenes/Malibu subregion occupies the westernmost portion of Los Angeles County. This subregion covers 162 square miles and is home to five cities.

### **North Los Angeles County**

The North Los Angeles County subregion comprises the Los Angeles County area north of the San Fernando Valley. This subregion covers 2,503 square miles and includes four jurisdictions.



### San Fernando Valley

The San Fernando Valley subregion fans north of the Hollywood Hills and Santa Monica, west to the Las Virgenes/Malibu area and eastward towards Arroyo Verdugo. This subregion covers 250 square miles and is home to two cities and numerous Los Angeles City communities.

### San Gabriel Valley

The San Gabriel Valley subregion sits in the easternmost portion of Los Angeles County. This subregion covers 345 square miles and is home to 30 cities.

### **South Bay Cities**

The South Bay Cities subregion is located at the southern end of the Santa Monica Bay. This subregion covers 183 square miles and is home to 17 local jurisdictions.

### **Westside Cities**

The Westside Cities subregion is bounded by Mulholland Drive to the north, the Pacific Ocean to the west, the South Bay Cities subregion to the south and the Central Los Angeles subregion to the east. This subregion covers 103 square miles and is home to five cities and numerous Los Angeles City communities.

### What's in Store for the Future

This Draft 2008 Plan looks at the benefits to different parts of the County from implementation of the constrained projects and programs. The nine sub-regions identified unfunded highway, interchange, transit, non-motorized, and other priorities (see Technical Document). The unfunded priorities could be used as potential candidates for future funding opportunities.

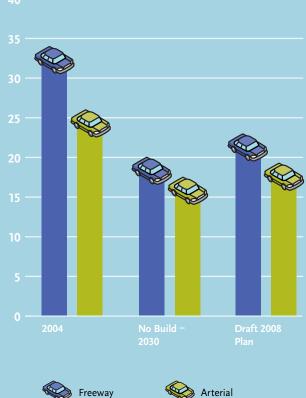
# ALTHOUGH THEY SHARE COMMON CONCERNS,

THE NATURE AND SCALE OF
TRANSPORTATION ISSUES VARY
CONSIDERABLY ACROSS
THE COUNTY.





MILES PER HOUR



# We want the plan to work.

- > This Draft 2008 Plan's transportation investments will improve mobility and air quality, and promote environmental justice.
- > Average freeway speeds are expected to increase from 20 to 23 mph in 2030.
- > The transportation system will move more people faster by improving passenger "throughput."
- > This Draft 2008 Plan will help reduce mobile source emissions by nearly 5 percent.
- > All segments of the population, including the transit-dependent and low-income groups, will enjoy more transit access and benefits.

A 25-year Long Range Transportation Plan can be judged on how it helps maintain and enhance our region's quality of life.

The Metro Board-adopted measures evaluate this Draft 2008 Plan by whether it improves mobility, improves air quality, and promotes environmental justice. When compared against the 2030 "No Build" scenario, improvements are seen in all three areas.

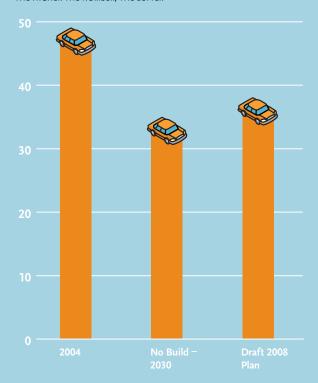
### **Mobility**

Mobility is a fundamental gauge of how a transportation plan benefits the region. A Plan that increases traffic flow and relieves congestion improves mobility. Mobility is measured in this Draft 2008 Plan in two key ways. First, this Draft 2008 Plan looks at how average travel speeds on our roadways will be improved through this Draft 2008 Plan's investments. When compared to the "No Build" scenario, this Draft 2008 Plan will increase average peak period travel speeds on freeways from 20 mph to 23 mph in 2030 (FIG. CC)

FIGURE DD

### **AM Peak Period Mobility Index**

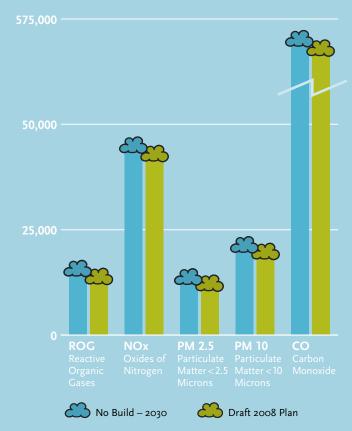
THE HIGHER THE NUMBER, THE BETTER



#### FIGURE EE

### **Air Quality Benefits**

CUMULATIVE EMISSIONS LB/DAY



Second, a Mobility Index is used to determine the flow of passengers throughout the transportation system. The Mobility Index takes the travel speeds that are projected and factors in vehicle occupancy. The higher the index number, the more effective the transportation system in moving more people. When compared against the 2030 "No Build" scenario, this Draft 2008 Plan improves the Mobility Index by over 10 percent (FIG. DD).

### **Air Quality**

A transportation plan that improves mobility and reduces congestion should improve air quality by reducing mobile source emissions. This can be attributed to the following. First, mobile sources are a large contributor to regional smog. By cutting traffic jams and improving mobility, this Draft 2008 Plan helps to reduce the two pollutants that contribute to ozone (i.e., oxides of nitrogen and reactive organic gases). Second, localized air pollution is often caused by traffic jams on freeways and busy streets. By speeding up freeway and street traffic, emissions of carbon monoxide and particulates are reduced for those

communities adjacent to these crowded roadways. When compared to current conditions, mobile source emissions are reduced due to a combination of mobility benefits and improved clean air technologies. Further, when compared to the "No Build" scenario in 2030, this Draft 2008 Plan reduces mobile source emissions by another 4.6 percent (FIG. EE).

### **Environmental Justice**

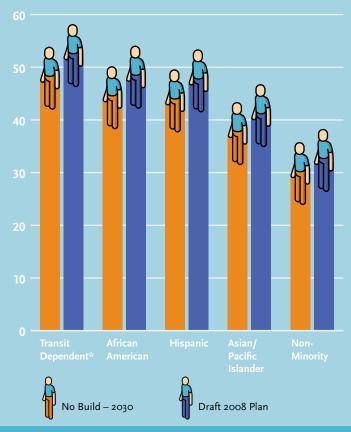
A balanced transportation plan must provide equivalent transportation benefits to all parts of our population, including the transit dependent and minority groups. There are two key ways this Draft 2008 Plan measures how it promotes environmental justice objectives.

First, this Draft 2008 Plan evaluates how much additional transit service would be provided in areas with high transit dependency and minority populations. When compared to a "No Build" scenario in 2030 with no new improvements, the percentage of work-related trips that can be completed by transit within one hour increases from 54 to 58 percent

#### FIGURE FF

### Job Accessibility by Population Subgroup

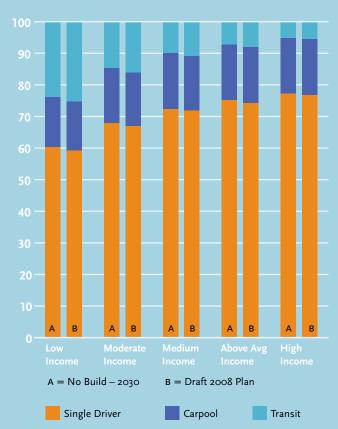
% of work trips within 60 minutes by transit



Transit-dependent census tracts have a higher number of low-income

### FIGURE GG Mode Choice by Income Quintile

% OF HOME TO WORK PEAK TRIPS



in areas with high transit dependency (FIG. FF). Minority populations also see increases in transit access. This is due to this Draft 2008 Plan's extensive transit investments and their proximity to areas with lower-income populations and job opportunities that support those areas.

Second, this Draft 2008 Plan will provide improved transit access to low-income groups. While all income groups benefit by improved transit access, low-income residents in Los Angeles County are expected to benefit the most from increased transit use (FIG. GG).

#### In Conclusion

Developing an efficient, cleaner and greener transportation system remains a daunting challenge. Nevertheless, this Draft 2008 Plan shows us what we can do in the next twenty-five years if we use our existing resources wisely.

This Draft 2008 Plan process has demonstrated that substantial shortages of transportation funds exist in Los Angeles County and that any new funding proposal will require a broad consensus-building period prior to its approval. The time has come, however, to face the

fact that we cannot rely on Sacramento and Washington, DC for resources, and increasing congestion is facing us if we do not act soon.

The challenge remains and the dialogue must begin. That is why we must use this Draft 2008 Plan to help our region come together on what we all can do with our travel choices to improve mobility and reduce GHGe. We also must use this Draft 2008 Plan to demonstrate our collective strategy for securing the funding for critical projects needed for congestion relief and air quality improvements.



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