

# **The 2011 California Landscape (Transportation)**

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## Introduction

With shortfall predicted to reach 26 billion dollars in Fiscal Year 2012 and an unemployment rate hovering at 12%, Governor Jerry Brown of California has a monumental task restoring order. It will come as no surprise that educational, environmental, and transportation related issues also play heavily into the overall mix. Each and every one of these key issues must be dealt with at town, city, and at the state levels because they are all interrelated and relevant to the overall economic health of the California economy. The goal of our California Series is to focus on a key topic and present possible solutions. This study does not pretend to solve a defined problem, but it may be of value in exploring ideas or concepts that may ultimately help to solve the problem.

However, no examination of the problems in California can neglect the political situation which any solution must accommodate. The reason why what happens in California so often acts as a predictor for the wider American society is that the local politics of this state mirror that of the larger society with two coastal population centers wielding the popular power of a state senate while the less populated rural communities hold much of the lower house, the state assembly. Party politics also follow this model and mirror the national situation. Of course this is an oversimplification, especially since a number of initiatives have been passed over the last four decades that give both the people embodied in the body politic and the lower house a stranglehold bordering on veto power with regard to adjusting taxes in a way that is not seen nationally. So, while not all aspects of California politics reflect the national scene, enough do so that it can be seen as a bellwether.

## Business Case

President Obama has made it abundantly clear that Americans must try to decrease their consumption of petroleum based products, so the country can reduce its dependency of this finite resource. He is correct in his message, but all one has to do is look at the traffic on Interstate 10 in Los Angeles to see how many people are stuck in their cars from Monday to Friday. The sad fact is that most Americans still drive to their jobs with only one occupant per vehicle, which makes it all the more difficult to lower petroleum consumption on a large-scale. Tackling this situation is simply not possible without some incentives in addition to the current draconian consequences of the free market which is encouraging people to live closer to work, albeit with demoralizing and in many cases catastrophic loss of property values. Whether suburban developments have a future remains to be seen.

However, in hindsight, we have to assume that an eventual return to previous values may be inevitable until the genuine scarcity of petroleum dictates that workers live within low or no cost commuting distance to their work, if we can provide sufficient jobs. THAT is another story, but one that can actually be used to encourage more sustainable lifestyles, as we will discuss a little later in this report.

There is little question that political unrest in North Africa and the Middle East has led to higher short-term oil prices. It seems that there are new headlines spewing out of places like Afghanistan, Egypt, Iraq,

and Libya on a daily basis. Most of the world is watching the events going on in this part of the hemisphere regarding oil prices, which is quite understandable given the severity of political and economic instability. However, while most are looking one way, the price pressure over the long-term is really going to depend on the petroleum consumption in China and India. With approximately 2.5 billion people combined, this scenario does not seem unreasonable. As a result, the price of oil will almost certainly go higher over the long-term. Our challenge will be to see this as an opportunity to lead the way into the post-fossil fuel economies that MUST be developed. Unfortunately, that lead is currently being hosted by those same countries, at least in terms of their investments in education and sustainable new local infrastructure. The potential for innovation in recycling and locally produced food and renewable energy resources is very high right now. We can lead or we can follow and wish we had invested back in the day when all anyone could see was deficits and their own petty tax rates.

This is a direct challenge to American “can-Do” Ingenuity. We've done it before. When did we become a nation of whining couch potatoes? We need to hold a mirror up to ourselves with the courage to see ourselves as we are, and not as we would like to others think us to be. Believe us, the Chinese and Indian leaders couldn't be happier if continue to pound our chests as if it was still 1950.

The challenge is to accept that we need more than large-scale solutions, we must also develop smaller, easily repeatable, locally-based solutions that can be locally maintained at more reasonable costs than the mega renewal demanded by our outdated infrastructure. For communication, all media channels must be leveraged, especially social media such as Twitter, Facebook, Linked-In and the new channels that will emerge if we encourage innovation. We must do this to ensure that we reach a wider audience. Shifting people from drivers to riders will help reduce both congestion and pollution, but this in itself has already been proven inadequate. We must find a way to transition to new patterns of work, living and recreation in clusters that don't require the use of petroleum to transport our bodies to distant venues for satisfying our needs. It is logical to assume that with gas prices on the rise, the timing may be good to introduce these types of initiatives. A change in perception will be the single most important factor in achieving this goal. The initial objective will be to create a “Buzz” around walking, biking, taking public transportation and ride-sharing or “slugging.” Between the IT behemoths in Silicon Valley and the media & entertainment industry in Los Angeles, California may have the most powerful marketing engine on earth. In no uncertain terms, this engine will be of paramount importance in helping to turn California into the model for the future.

We must harvest the energy of our youth as a resource that we can encourage rather than discourage if we do this, they can be counted on for positive efforts like using alternate means of transportation to lower the national dependency of petroleum. For example, we can experiment to see if pilot bus routes can capture greater numbers of passengers, and if not, then modifications and changes can be made in order to increase ridership. We must accept that in order to succeed we must try numerous methods and we must be creative and pragmatic in the effort to improve the California transportation system. While problems are broad-based and highly complex in nature, the ability to solve these problems can be made possible by intelligent planning and leveraging the multitude of California's resources.

## The Current Landscape

California has been blessed with natural beauty and an expansive landscape, which certainly adds to driving as recreation beyond or in addition to necessary transportation. So, it comes as no surprise that most people who live in the state take great pleasure in driving and enjoy their automobiles. This “Car Culture” has been glamorized in movies like “Bullet” and “the Fast and Furious” franchise, which expanded and spread this unsustainable model around the globe. The state has built star status in the automotive world from the post WWII era “hot rod” craze and has kept it going at full throttle. From Prius to Hemi, no place on earth has a broader or more diverse auto inventory.

Imagine, if you will, a group of attractive young people coming out of a local movie theatre showing some of these funny “old” movies, or perhaps an even older vintage, like “American Graffiti” then taking a very sexy “stroll” along the local boulevard where open-air cable-caresque light rail vehicles also filled with sexy young people pass by, exchanging banter. Then imagine the protagonist couple turn to each other and ask, “Can you imagine having to drive around in circles surrounded by big steel boxes just to check each other out, and then having to find a place to park?”

The price of oil is escalating around the globe, and prices at the pump are likely to rise in 2011. This event will be of great concern to the public and private sectors alike because of the state’s utter dependency on petroleum products.

The question we need to put in front of the public is, “How do we put all this in our rear view mirror for good?”

Ongoing instability in North Africa and the Middle East is currently weighing heavily on the global oil markets. With oil prices at \$100 per-barrel, consumers will be paying more at the pump. As a result of this unrest, inflation relating to energy prices will have a negative impact on the local economy because most people still drive to and from work, and higher prices at the pump will act as a drag on overall consumer spending. Over the near-term a \$5.00 per-gallon price tag for regular gas looks like a real possibility. As a result, solutions must be found to reduce the consumption of petroleum products, while concurrently promoting a cleaner overall environment.

The question we need to put in front of the public is, “How do we put all this in our rear view mirror for good?”

The modernization of transportation systems is being severely hindered by budgetary constraints that run across town, city, and state levels. Over the short-term, the game plan could be to initiate studies, run pilots, and undertake small-scale projects in areas that include railway, subway, bus lines and bike paths. The goal should be to improve the current transportation landscape with available funds, while laying the foundation for a transition to more livable and more sustainable lifestyles which will, believe it or not, leave us sufficient petroleum for the “once-every-two-or-three-year special vacation”.

Accordingly, this forward thinking will enable state & local entities to be in a better position to deal with transition traffic flow to a clustering model as result of improving future economic conditions.

## **Problems - City Focused**

Transportation issues are some of the most concerning for California residents, especially in major cities such as Los Angeles. Many of the states urban centers are underserved by public transportation systems, and are overrun by vehicle traffic on the highways, major thoroughfares, and even on residential streets. Angelinos, for example suffer through some of the nation's highest average commute times to and from work. Drivers waste a countless number of hours each year on gridlocked freeways, with no viable time-saving alternatives. During the work week rush hours; there is no escaping the traffic. Routes through side streets and residential areas are often more time consuming than the suggested routes. And the public transportation that is available is limited and inefficient. There are only a handful of light rail lines, and the buses always run late. Furthermore, the buses have to fight the same traffic as passenger vehicles. With gas prices climbing higher and higher, many commuters are searching for transportation planners to provide alternative means for navigating through the city.

### **Traffic Congestion**

Often the most concerning issues related to the transportation problems is the ubiquitous traffic gridlock in urban and suburban areas. The extensive highway systems are no match for the high volume of commuters clogging the roadways every day. The problem boils down to a pure numbers game. The amount of automobiles on the road, especially during rush hours far surpasses the number that would be required for optimal driving conditions. The number of cars on the roads causes aggravation, road rage, and increased chances for automobile accidents. The stress related to long commutes requires many drivers to miss out on family and leisure time, and it can contribute to reduced sleep hours, which can in turn affect the alertness of motorists, as well. In addition, the high volume of vehicles that clog the freeways and streets, results in increased air pollution, which has a negative impact of the natural environment. In summary, the issues related to traffic congestion are responsible for an overall decreased quality of life for residents who are forced to deal with them.

### **Public Transportation**

Public transportation is usually a viable alternative for urban commuters. However, many cities in California, including Los Angeles suffer from a subpar transit system. Although there have been efforts in the past decade to improve the network of light rails, buses and even subways, many of the neighborhoods in the region are not able to benefit, as the transportation corridors are still somewhat limited in the grand scheme of the Greater L.A. area. The light rails are only supplementary to the bus system, which is notoriously unsanitary and unreliable. Individuals who do rely on public transportation often complain of buses that are behind schedule, and gaps in service that require high numbers of transfers or long walking distances. In the face of skyrocketing gas prices, it is more important now than ever to increase the efficiency of the public transportation network in the state. The holes in the public transportation system are the reason that many commuters do not have any realistic alternatives to driving personal automobiles in order to navigate through the city.

## **Urban Planning**

The shortfalls of the urban plans in California also contribute to the overall transportation problem. The sprawling development of the Southern California region is largely responsible for the reliance on the automobile. The suburbs consist of many “bedroom communities” that send commuters to work every day in the commercial areas. Most of the metropolitan areas lack diversity in zoning, meaning that commercial zones are usually located quite a distance from residential areas, requiring workers to endure long commutes. The general plan of Los Angeles also has other shortcomings. For example, the weather in sunny Southern California allows for an extensive network of bike routes, but the current area allotted for cyclists is quite limited. The bike lanes that do exist are very short corridors and it is unsafe to ride on most surface streets in the region. However, the lack of mixed use developments and walk-able communities make it impossible for more residents to either walk or bike to work.

## **Budget Issues**

The economic crisis has affected everyone from the top to the bottom. Transportation departments have not been immune to the budget cuts and decreased investment. For example, Los Angeles was forced to cut the transportation allotment by 5.4 percent from 2009-10 to 2010-11, which resulted in a total of just over \$126 million. The cities and state are under a lot of pressure to balance their budgets, and unfortunately transportation is often one of the departments that frequently receive reductions. It is clear that the current budget will not allow for the increased investment that will be needed in order to improve the transportation system, so policymakers, planners and politicians will need to introduce new and innovative ways to either garner financial support or re-think the issues that face commuters each day.

## **Problems - City to City Focused**

A second transportation problem that faces Californians is moving from city to city and region to region. As the third largest state in the nation the land area amounts to 163,696 square miles. This means that California transportation planners must have more work than those in other states to bridge the gaps between the major metropolitan areas. Because the state is so large, residents who wish to travel between San Francisco and Los Angeles, for example, have to travel a distance of 400 miles. The regional travel within the state is equal in distance to travel between three or four states on the east coast. Because of the scope and scale, transportation from city to city in California must be approached in the same manner as other states have tackled their inter-state systems. The vast landscape of California is obviously one of its strong points, but the issue of building a cohesive transportation network in the state must be added to the agenda.

### **The Need for Additional Transportation Choices**

Californians, like most other Americans are dependent on their personal automobiles. The vast majority of residents use them to commute to and from work, school and social events. The same is true when traveling regionally. In fact, since the beginning of the economic downturn, people are more inclined to travel by car, instead of taking local flights, due the increase in the cost of flying. So, a family that would normally fly from San Francisco to San Diego now alters their vacation, taking a cross-state road trip. And although many individuals do enjoy the flexibility of car travel, residents should have the choice of different means of regional transportation, especially considering the issue of traffic on California highways. Current railway systems are limited in scope and speed, while remaining quite costly. The bus systems are uncomfortable and inefficient, and the overall options for moving throughout the state are lacking in diversity.

### **Dependence on Foreign Oil**

Additionally, Californians must develop new ways to travel from city to city in order to reduce our dependence on foreign oil. With the economy still in recovery stages, families are being forced to cut their expenses in every way possible. Some commuters have been able to purchase more fuel efficient vehicles, but the reality is that these cars carry a hefty price tag that many cannot afford during these tough times. As gas prices approach \$5 per gallon throughout the state, many people are trying to limit the use of their personal automobiles. The reality is that long vehicle trips, such as those from San Francisco to Los Angeles require a significant amount of gas. Many people take these types of road trips several times per year. We must begin to develop alternatives for moving from one region to the next. It is important for Californians and Americans to decrease our reliance on oil production from the countries in the Middle East. The reality is that we can expect civil and political uprisings to continue in these liberty-starved countries, so their oil supply is not a stable, and many experts predict that gas prices will only continue to climb.



## **Peak Oil is Inevitable**

Regardless of whether we have already reached the time when the Earth's oil supply is at the maximum it will ever be, the period known as "Peak Oil," or we have another ten or twenty years until that day as demand from India and China continues to increase almost exponentially, the fact is that oil is finite.

The biosphere of our planet will not produce any significant increase in petroleum during the lifetime of humanity. Even the laws of physics stand against our continued increase in the use of petroleum as cheap energy for personal transportation. Neither energy nor mass can be created, or lost; they can only be transformed, so all we can accomplish with our current use of petroleum is to foul our precious air with the inevitable exhaust waste of "burning" that petroleum inside internal combustion engines. There may be more illogical choices we can make, but this is doubtful. Regardless, this is one we need to address immediately. Short of small scale cold fusion, there is no escaping the reality of Peak Oil. The question we need to put in front of the public is still, "How do we put all this in our rear view mirror for good?"

## **The Perceived Lack of Importance**

Most politicians and policymakers overlook the importance of building regional transportation networks, sometimes dismissing them as superfluous and unnecessary. Often, issues of budget reduction are cited, and rightfully so, as funds have been cut from many state and county departments. However, increasing regional transportation options can not only improve the quality of life for the thousands of people who commute daily from San Diego to Los Angeles, for example, but it can also help relieve general metropolitan traffic congestion in large cities as well as suburban areas.

The development of additional modes of transportation will result in the reduction of those who commute by automobiles on a daily basis. In addition, the economic impact of improved regional connection is often overlooked. New innovative modes of transportation will allow businesses, employees, and job seekers to explore options that were previously perceived as impossible. For example, a businessman from Santa Monica may finally be able to accept the job offers in San Luis Obispo when an option is created that will allow him to commute there in 90 minutes. It is important for decision makers to understand the need and the importance of bridging these regional transportation gaps throughout the state. It is these regional gaps which could provide the meat and potatoes for long-term projects which would also bridge the gap between relatively small-scale so-called "shovel ready" infrastructure maintenance projects and the kind of large-scale projects like a next generation information highway or a manned Mars mission using the Eisenhower Interstate Highway Act of the mid 1950s as a model for the investment needed to renew the American IT effort to a leadership role. Combining measures to stimulate innovation in IT for the specific purposes of maintenance and renewal of critical infrastructure or the development of new space exploration frontiers are the kind of investments that will continue to provide benefits into the foreseeable future and generate a stronger national morale for America.

Overcoming this perceived lack of importance in the midst of the jockeying for position going into a presidential election year in 2012, especially when the issue of a largely inherited deficit and an anemic recovery from the near collapse of the entire American Economy in 2008, is a difficult task. Reversing the perception of these measures as unaffordable costs rather than investments we can't afford to neglect and that will bring forth renewed demand for jobs in a more vigorously recovering economy is the main task.

## **Solutions: City Focused**

The ideas and concepts outlined in this section may be used to possibly augment current efforts such as the Municipal Area Express (MAX) bus service in Los Angeles and the Bay Area Rapid Transit (BART) rail system in San Francisco. Regarding California success stories, the benefits provided by well run transportation systems are many and BART is a fine example. With over 300,000 weekly riders, BART is the fifth busiest heavy-rail system in the nation. It is also considered by many experts to be one of the finest, if not the finest rail system in the country because of its on-time performance, safety record, and overall cleanliness. Hence, the goal is to leverage the positive attributes of programs such as MAX and BART, while introducing new ideas and concepts that may help to ease traffic related congestion, while reducing overall levels of pollution.

### **Second Avenue Subway (SAS)**

The Second Avenue Subway (SAS) is a colossal project currently underway by the Metropolitan Transit Authority (MTA) of New York City to improve transportation along the East Side of Manhattan. It is both a massive and expensive undertaking, which must be considered a bold move on the part of New York City to improve its transportation system during a time of economic uncertainty. The plan will include a two-track line along 2nd Avenue from 125th Street to Lower Manhattan. The First Phase is underway, and its objective is to create new tunnels between 92nd & 63rd Streets, which when completed is expected to carry over 200,000 weekday riders. With bold moves, come big problems. Case in point, the MTA recently stated that approximately 200 buildings were deemed fragile from 86th to 63rd Streets, and 40 may need to be reinforced and people relocated. This project has proved difficult for both business owners and people living in the area from the onset. Regarding costs, Phase One of the project is expected to cost approximately 4.4 billion dollars and is scheduled to be completed sometime in 2016. No specific dates have been set for Phase Two, Phase Three, and Phase Four at this point in time. The benefits of subway travel are many, but the expense and inconvenience to businesses and people living in the area must be weighed into the overall equation before a city, and or cities in California undertake this type of large-scale rail project.

### **Select Bus Service (SBS)**

By no means perfect, the M15 Select Bus Service (SBS) in Manhattan has some very positive qualities that cities in California should look at in greater detail to help improve their current transportation systems. The non-intuitive payment system aside, this new bus service enables riders to move quickly from north to south along 1st & 2nd Avenues in a timely and efficient manner. The 8.5 mile SBS route (125th Street to South Ferry) has a current ridership of approximately 55,000 on an average weekday, which must be viewed as impressive feat for this type of public transportation. First, buses are a tandem design that sport three doors, which makes for quicker entry & exit. Second, these new buses are more fuel efficient and meant to run cleaner than previous versions. Third, routes, stations, and stops have been planned out to ease congestion in the most crowded parts of the East Side. Fourth, these routes have dedicated lanes (Between 125th Street & Houston), which is estimated to produce a 20% increase

in rush hour speed for M15 riders. Some pundits may balk at a dedicated bus lane because one traffic lane has been given up, but the footprint of one bus is far smaller than 30-40 automobiles. One Select bus also spews out far less pollutants than the aforementioned number of automobiles, which contributes to better overall air quality. All factors (e.g., traffic study, bus lanes created, bus purchases, etc.) considered, this type of high-speed bus service may be the least invasive and one of the most cost effective options to ease congestion and lower pollution levels for cities across the state. For additional impact on air pollution, California should consider using alternative fuel buses, instead of diesel. Los Angeles is currently the only major city in the nation that exclusively uses alternative fuels in their fleet, so it is important for other transportation authorities to follow suit.

## **The LA Campus Experiment**

Los Angeles seems like a natural choice because it is the largest city in California with over 4,000,000 inhabitants. It is also home to two of the finest establishments of higher learning in the world, UCLA and USC. The marketing departments at these two schools could work with Mayor Villaraigosa and the City Council to start a new student public transportation program. A simple survey could be undertaken to see where students live, their access to public transportation, and their interest in expanded service.

Starting small seems like the logical and prudent course of action. One or two new bus routes could be carved out, so students would have the opportunity to travel on public transportation to and from school, but that is putting the cart before the horse. As defined a powerful awareness program must be put into place so students are strongly encouraged to take action by compelling communications programs combined, possibly with local entrepreneurs. For example, a slogan like "UCLA students who walk, bike, catch a slug ride at a participating slug line or ride public transportation today can pick up discount tokens at the following cafes, shops or food carts," or "USC students get discount ticketron tickets with bus passes, student pedometers or bike bands", so a "Buzz" can be created. If successful, The LA Campus Experiment could be the start of a state-wide movement by students to use alternate means to and from campus. Local competitions to see which campus gets the most car-free students could be developed. It stands to reason that if there is a good volume on Twitter and Facebook about the cool things going on in LA schools around the transportation effort, then places like UC Berkeley and UCSD will not be far behind. In a nutshell, it is about getting our young people motivated to walk, bike, rideshare and take public transportation.

## **Double-Decker Freeways**

The double-decker or two-level freeway concept is not a new one. Former California Governor Arnold Schwarzenegger proposed a second level for the 405 freeway in West Los Angeles. Many opponents cite California's earthquakes as a reason to stray from this alternative. However, a second level system for the HOV lane on the 110 Harbor Freeway, south of Downtown Los Angeles, has been open for years, without incident. The positive effect on traffic would be undeniable if second levels were to be added to highly-traveled highways in the state's major cities. The only drawbacks are cost and safety. If engineers can build systems similar to that on the stretch of the Harbor Freeway, then safety would be less of an issue. It is important to be open to various types of solutions to these transit issues.

## **Increased Carpool Lanes**

As oil and gas prices continue to rise, commuters are looking for new ways to cut transportation costs. More people are turning to carpooling in order to share the costs of gas and vehicle maintenance. Those for whom carpools are too much of a constraint can adopt slugging, standing in a slug line at specific spots where drivers can pick them up to qualify for carpool lanes, and slugs are dropped off at bus stops or bus and rail hubs. Such an option may need to be stimulated by local municipalities, but it works well in the San Francisco Bay Area. As organized or ad hoc slugging carpools help to alleviate traffic by eliminating extra cars from the roadways, transportation planners must begin to add additional ride-share lanes to facilitate these commuters, and to help the flow of traffic. Caltrans is already taking action in the Greater L.A. area near Burbank. The stretch of the Golden State I-5 Freeway between the 170 Hollywood Freeway and Buena Vista Street, a total of 4.4 miles of highway will receive HOV lanes by 2014. It is important for Caltrans to add carpool lanes in other areas, as well, where they will benefit the flow of traffic, and encourage more commuters to use the ride-sharing system. Carpoolers not only help alleviate traffic, but they help to lower vehicle pollution, which has a positive impact on the environment as a whole.

## **Streetcars, Trams and Trolleys**

Another form of feasible public transportation that could add to the California transit networks is streetcars/trams/trolleys. In addition to serving as practical modes of transportation that alleviate traffic from busy roadways, streetcars can also help bring life to the urban landscapes in busy metropolitan areas. Of course, some areas, such as San Francisco's cable car system already use this technology, and Los Angeles currently has a plan to rebuild a network downtown, other cities should consider this option, as well. The streetcars will provide a visual break from the monotony of passenger cars and commuter buses. In addition, case studies from other cities show that the use of streetcars encourages development and local investment, and results in an overall more desirable urban experience. Local municipalities may require the vendors along specified boulevards to subsidize extremely inexpensive and very frequent streetcar/tram/trolley systems that will increase their foot traffic. California would also benefit from the low emissions, the minimal noise pollution, and the increased efficiency of the overall transportation layout. Developers of the proposed Los Angeles system plan to run the streetcar seven days a week for approximately 18 hours each day. The project is to be completed using both public and private funds totaling \$125 million, but it is expected to generate over 9,300 jobs, and \$1.1 billion in new development and \$47 million in new city revenue.

## **Solutions: City-to-City Focused**

The solutions to moving from one region in California to another are needed in order to provide alternative means of transportation for individuals who desire to move across the region. These efforts will require collaboration between cities and counties across the state; they also require the commitment of policymakers, planners, engineers and other professionals from a wide variety of fields and backgrounds. Thus, it is important that California develops long term and short term comprehensive transportation plans which can serve as a guide when developing these systems.

### **Cohesive Transportation Network**

The first course of action in solving the transit issues in regions and counties, and in turn, the state, as a whole, is to begin to construct cohesive transportation networks. There may be extensive bus routes, and a hand full of light rail lines in Los Angeles County, for example, but many citizens would argue that there isn't a reliable network that can serve as a viable alternative to personal automobile commuting. The key is for cities and counties to work hand in hand to create alternatives where a man who lives in San Clemente can safely bike to a nearby train station, take the rail to Downtown L.A., then take a light rail to Hawthorne, take a bus to Gardena, and then bike the rest of the way to work. Of course, that is a rather complicated example, but the systems should be in place to accommodate the diverse needs of a diverse population.

In addition, cities must begin to work with one another to formulate plans that will allow citizens to transfer. Each individual transportation system must have key connection points to other systems, allowing smooth transitions for riders, so there are no gaps in coverage. The Santa Monica City Council recently approved several changes to their Big Blue Bus public transportation system that decision-makers hope will have a positive impact on riders throughout the Westside region. The bus routes are being updated based on the needs of commuters, and important changes are being made to connect directly with the subway line in Los Angeles. Other municipalities throughout the state must follow suit, in order to strengthen the fabrics of the regional transit networks.

### **Regional Transit Law Enforcement**

An often overlooked aspect of regional and local planning is the necessity for providing sufficient law enforcement without actually reducing the ridership of the less affluent populations that most need to be served by such a locally transitioned regional transit system. Bus stops and buses themselves have a long history of becoming petty crime centers. While sufficiently visible law enforcement is necessary, it may be necessary to augment this kind of coordinated local and regional transit policing with local walking and bicycle beats for officers who can become familiar with their local beats and enhance the effort of deterring or moving crime away from high-traffic areas, or the areas where we need to encourage relatively high traffic with an acceptable level of comfort and safety.

## **High-Speed Trains**

The construction of high speed trains has long been discussed as a possible solution to the transportation issues in California. This option is one that must be pushed forward, as it would provide mobility options for tourists, workers looking for jobs, individuals visiting family across state, and long distance commuters. A coastal route would be a feasible alternative, providing stops in the key cities: San Diego, Irvine, Los Angeles, Oxnard/Ventura, Santa Barbara, San Luis Obispo, Santa Cruz and San Francisco. Such a route would finally connect the metropolitan hubs along the Pacific.

In addition, routes could also be added to serve other regions. For example a line stretching from Downtown L.A. through South L.A. County, hugging the 91 freeway to Orange and Riverside Counties could potentially help to decongest the highways during rush hour. This route could then head to Phoenix, even further extending the network to a neighboring state. Another possibility is a route through the San Gabriel Valley to the Inland Empire could then cut through the mountains and provide a route to Las Vegas Nevada.

## **Expansion of Light Railways and Subways**

Another plausible solution for city-to-city navigation is the extension of existing light rail and subway lines. Some transit organizations, such as the Los Angeles County Metropolitan Authority, have done an excellent job at beginning to integrate light rail systems as public transit alternatives. The problem is that there are very few lines, and those lines do not form any type of network. If a commuter does not live along one of the corridors, then it makes little sense to take one of the light rails or subways.

The priority must be to create new lines and to extend the ones which are already in operation. For example, the current subway Purple Line in Los Angeles currently runs from Downtown to the Mid-Wilshire area. If this line were extended down Wilshire to West Los Angeles, this would create an increase in the usage of this line. Another possibility is to create a new line from the existing downtown light rails to cut down Venice Boulevard to the San Vicente Corridor to Beverly Hills and Century City. Such construction would effectively integrate new systems of transit, adding to the overall public transportation network, providing alternatives for moving from city to city and region to region.

## **Long-Distance Public Bus Systems**

Another alternative public transit option is to create long distance public bus networks that can transport large amounts of passengers, providing another option for people moving from region to region. Public transportation departments, such as LA Metro and the Orange County Transportation Authority could develop routes that would serve locals who wish to travel to other parts of the state, providing alternatives to air travel, cars, and private bus companies, which are often quite expensive. Long distance public bus systems could potentially provide additional revenue for the cities and counties involved. In addition, by using vehicles that only use natural gas, California could ensure that these buses would not add to the pollution and air quality problems.

## Postscript

This study does not expect the reader to concur with its findings. What is important is considering all available options combined with educated projections for future populations. Ideas such as a Select Bus Service (SBS) being deployed in a city like Los Angeles to help ease congestion, while also reducing pollution levels seems to be a logical and plausible option. Accordingly, sending representatives from California to New York City, so they may view non-invasive and invasive efforts and gain a better overall understanding of each may be time and money well spent. While the New York City transportation system is far from perfect, it clearly demonstrates how walking, biking, and or using public options can be used effectively by a majority of people to get to and from a desired destination. With over 8,000,000 people, numbers vary from borough to borough. For example, people in the Union Square (Manhattan) use automobiles only about 10% of the time, while those in New Dorp (Staten Island) have a much higher rate at approximately 40%. In any event, it showcases a model that leverages efficient means of transportation (e.g., subways, buses, biking, walking, etc.), rather than a single model, one which relies on petroleum consuming automobiles as its primary option. As noted, Peak Oil is a reality. We will deal with it one way or another.

Many formidable obstacles lay in the path of public transportation modernization. These include state & local budget shortfalls and an unhealthy private sector landscape with high unemployment and a weak housing market.

Quite possibly the biggest challenge is convincing California drivers to become California riders. Of course we can wait for reality to enforce an unplanned but inevitable solution. As stated at the beginning of this study, most people who live in California take great pleasure in driving and enjoy their automobiles, so selling them on purchasing a monthly bus or rail pass will take a great deal of convincing. Catchy signs and slogans will not be enough. A real business case must be made to use public transportation. With countries like China and India adding to their auto inventories daily, it looks like a long-term rise in gas prices is unavoidable. A \$5.00 gallon price tag for regular gas will get a lot of people thinking about using public transportation, while a \$10.00 gallon will enforce it at whatever level of efficiency, reliability and safety just happens to be available.

Or we can do it another way, deploying our intelligence in advance of necessity.

While times may be difficult on the budget front, it may be an opportune time for state & local governments to take a closer look at public transportation modernization to help create a more efficient model, which will benefit the people of California for many years to come.

One way or another, we WILL put all this in our rear view mirror for good.



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