



I-5 NORTH COAST
MANAGED LANES VALUE PRICING STUDY
FROM LA JOLLA VILLAGE DRIVE TO VANDEGRIFT BOULEVARD

***CONCEPT PLAN
VOLUME II***

APRIL 2006

Submitted to:



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Errata Sheet:

I-5 North Coast Managed Lanes Value Pricing Study (April 2006)

The project description was revised to state that the painted buffer separation between the general purpose lanes and the HOV/Managed Lanes would be up to five (5) feet.

This minor change in the project description is consistent with the analysis contained in this technical study.

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I-5 NORTH COAST MANAGED LANES VALUE PRICING PLANNING STUDY

VOLUME II - EXECUTIVE SUMMARY

ES.1 COMMUNITY OUTREACH OVERVIEW

ES.1.1. Purpose

The goal from the I-5 North Coast Managed Lanes Value Pricing Study Community Outreach Program was to accurately gauge public reactions to and support for a variety of value pricing and lane management options under consideration on I-5 north of San Diego. The importance of understanding early in the planning process what design, pricing and operations elements were favorably – and unfavorably – received by a variety of publics ultimately helped to shape the final recommendation of the study.

ES.1.2. Methodology

Four distinct methods for gathering and gauging public opinion were utilized as a part of this study and were as follows:

Stakeholder Interviews

Date Fielded: November/December, 2004
Number of Participants: 24

Focus Groups

Set #1 (comprised of two focus groups)
Date Hosted: November 16th, 2004
Number of Participants: 16

Set #2 (comprised of two focus groups)
Date Hosted: May 5th, 2005
Number of Participants: 17

Intercept Interviews

Date Fielded: February 2005
Number of Participants: 353

Telephone Survey

Date Fielded: January/February, 2005
Number of Participants: 804

ES.2 STAKEHOLDER INTERVIEWS

Documenting key leader attitudes and opinions about the value-pricing component of the proposed Interstate 5 (I-5) managed lanes in North San Diego County was



undertaken in November and December 2004. A total of twenty-four stakeholders participated in in-person one-hour interviews. Stakeholders participating in the interview process included:

Elected Officials

- Leon Williams, Chair, Metropolitan Transportation System
- Hon. Judy Ritter, Councilmember; City of Vista

Operation Stakeholders

- Mark Baza, Caltrans District 11
- Lt. Richie Rennie and Capt. David Webb; California Highway Patrol N. San Diego County
- Mr. Gonzalo Lopez, Director for Marketing & Community Relations, Metropolitan Transit Service
- Robert Leiter, Department Director of Land Use and Transportation Planning, SANDAG

Community Groups & Interest Groups

- Louis Martinez, Treasurer, Hispano-Americans for Progress, (also City of Vista Traffic Commissioner)
- Reginald Owens, First VP; Warner Davis, Second VP; North San Diego County Branch of National Association for Advancement of Colored People (NAACP)
- Grace Roos, Transportation Director; San Diego League of Women Voters
- Lisa Briggs, Executive Director; San Diego Taxpayers Association

Environmental Groups

- Ron Wootton, Executive Director; Buena Vista Lagoon Foundation
- Doug Gibson, Executive Director; San Elijo Lagoon Conservancy

Military Groups

- Larry Rannals, Community Plans & Liaison Officer; Marine Corps Base, Camp Pendleton
- Pete Magana, Secretary; American G.I. Forum, Oceanside Chapter

Business, Community and Regional Attractors

- Ceci Cazares, Chair, Legislative Committee; San Diego County Hispanic Chamber of Commerce
- Tim Read, Director of Operations; Del Mar Thoroughbred Club
- Milton Phegley, Campus Community Planner, Government and Community Relations; University of California, San Diego

Special Roadway Users

- Armando Freire, President; Dimex Trucking
- Yolanda Jimenez, President; Lucar Trucking
- Ron Popham, Director, Maritime Services; Stuart Farnsworth, Maritime Program Manager; Port of San Diego
- Dan Beal, Managing Director, Public Policy; Automobile Club of Southern California

Interregional Stakeholders

- Hasan Ikhata; Southern California Association of Governments

Topics covered in the interviews included:

- Current traffic conditions on I-5
- Experience with and attitudes toward I-15 Express Lanes



- Operational issues associated with managed lanes on the I-5 Corridor
- Willingness to pay for managed lanes
- Use of toll revenues
- Pros and cons regarding pricing strategies proposed for I-5
- Environmental and fairness concerns
- Ideas for other public outreach and market research

ES.2.1. KEY FINDINGS

ES.2.1.1. People Are Desperate for Mobility Solution on I-5

The daily stress of congested commuting is reaching the breaking point for many, and stakeholders said that managed lanes will be welcomed, for the most part, as one among many needed tools to solve existing and projected traffic problems on I-5. Stakeholders generally saw this additional travel choice as a good thing.

ES.2.1.2. No Equity Deal-Breakers for Value Pricing on Managed Lanes

Though many stakeholders are sensitive to the plight of low-income families and motorists, the managed lanes were seen to be fair because the decision to pay as a solo driver is entirely optional. As long as carpools and transit riders continue to ride free and enjoy free-flow conditions, most stakeholders saw no “real” equity issue. Further, the idea of requiring people to pay for a scarce resource—free-flow peak travel—was viewed as fair in the context of our market economy. However, issues of affordability and perception of equity were still identified as problematic. To some extent, these issues can be mitigated through directing revenues to new, high-quality transit service along the corridor.

ES.2.1.3. Goods Movement is Important, But Keep Trucks Off Managed Lanes

Most stakeholders—including the trucking firms interviewed—did not want to see trucks on the managed lanes, due to a variety of operational concerns about truck/passenger car conflicts, both within the lanes and getting to the lanes. Trucking representatives prefer to stay on the outside lanes, and most do not have enough operating margin to pay tolls, even to obtain a time advantage. Other systemic issues would militate against any advantage gained, in the view of some.

ES.2.1.4. Use Revenues for New Transit or Corridor-Specific Transportation Purposes

Suggestions for use of toll revenues was strongest for new transit, and TDM program support, and secondarily for any highway purpose within the I-5 Corridor. Some flexibility for transportation-related expenditures outside the corridor was mentioned, as well as mitigations for freeway impacts to the environment.

ES.2.1.5. Will Managed Lanes Discourage HOV Use in the Long Run?

The most serious and consistent argument against using value pricing on managed lanes was the concern of approximately 25 percent of stakeholders that allowing solo drivers to purchase their way out of congestion, rather than behaving their way out of it, can only serve to undermine regional support for transit and carpooling. This group sees transit as the only real mobility solution in the long term, and value pricing may have the effect of delaying needed social investment to ensure that transit infrastructure is in place when it is needed.



ES.2.1.6. Project Benefits

Most frequently identified benefits of the project are listed below:

- Managed lanes with value pricing provide an effective new alternative for moving people in the I-5 Corridor, and decrease travel time for transit and HOV users. (7)
- New capacity eases burdens on the main lanes, including trucks which may be excluded from the lanes themselves (4)
- Project will marginally reduce air pollution (4)
- The lanes will preserve right-of-way for future high-capacity transit (3)
- Project will improve quality of life by providing people with dependable trip times (3)
- The lanes maximize corridor capacity (3)

ES.2.1.7. Let Caltrans Determine Best Design for Mobility and Safety

Most stakeholders prefer a physical barrier to a painted barrier, but in most other respects are content to allow Caltrans planners and engineers make design decisions based on moving people effectively and safely.

ES.2.1.8. The Jury is Still Out

Responses to a number of questions illustrate the need for additional study of the effectiveness of managed lanes in achieving agreed-upon regional transportation goals. Some reluctant or limited support for another value pricing application in San Diego County would be strengthened if monitoring and reporting results demonstrated real and quantifiable travel and quality of life benefits.

ES.2.1.9. Need for Ongoing Marketing, Public Education and Better Facility Signage

The following comments point to a need for a targeted and continuous public information program and more sophisticated and clear signage solutions:

- I-5 is more complex configuration than I-15
- People need to know what revenues are used for
- Better explanation of how to use the lanes, access points
- Better explanation of project benefits to different road user groups
- Better transit and carpool/vanpool information
- International/bi-lingual signage needed

ES.3 FOCUS GROUPS

ES.3.1. First Round (Focus Groups #1 and #2)

Two focus groups were conducted for SANDAG on November 16, 2004 with regular users of Interstate 5 (I-5) between Oceanside and the I-5/I-805 split. Respondents were recruited and were screened for using I-5 between Oceanside and the I-5/I-805 split at least three days per week, and balanced by gender, age, and employment status. The first focus group had seven participants, while the second had nine participants.



The main objective of this set of two focus groups was to understand the reactions of I-5 users to a proposed expansion of that freeway to add one additional general use lane and two managed lanes to each direction of the freeway. The focus groups were also used to develop appropriate language for use in the subsequent quantitative research that was conducted by telephone.

The primary purpose of the focus groups were to understand participants' perceptions of and reactions to:

- Current traffic on I-5
- Other managed lane facilities in Southern California
- Proposed expansion of I-5
- Types of managed lanes
- Willingness to pay for managed lanes
- Environmental and fairness concerns

ES.3.1.1. SUMMARY OF FINDINGS

- Focus group participants were generally familiar with Southern California toll roads and understand how they operate. Usage was mixed, but several had used one of the toll roads in the past.
- Participants provided mixed to positive comments on existing toll facilities, noting that there are potential problems if accidents occur in the lanes, and at the egress points where merging with the other lanes is problematic.
- Participants are moderately positive to the idea of improvements on I-5, although enthusiasm for the project depends on the level of use, with those who have longer trips being somewhat more supportive.
- Both groups felt that continued population growth will have a large impact on freeway conditions, and it is unlikely that the suggested improvements will be able to 'solve' congestion problems.
- Participants voiced concerns about construction-related congestion and how long it will take to complete the improvements.
- There were also some concerns voiced about environmental impacts including noise, visual impact, and the effect on wildlife.
- Preference for a barrier type between managed and general purpose lanes was mixed, with concern about accidents being an important factor in the first group's preference for painted lines. The second group preferred some type of soft barrier (pylons) that would enable drivers to enter/exit the managed lanes in case of an accident, but deter people from entering and exiting illegally. Most do not like hard barriers because of the inability to get in and out in case of an accident.
- Both groups are in agreement with access/egress points being three to five miles apart. Concern about merging safety is an important consideration in preferring that they be no more frequent than every three miles, and concern about construction cost and the ability to get into the system play a role in the maximum distance of five miles.
- In general, participants are not interested in a freeway expansion that does not include at least one additional general purpose lane.



- A majority of the first group, but only a third of the first group indicated that they would be willing to pay anything to use the managed lanes, and very few were willing to pay \$5 or more per trip.
- Three people from each group feel that the improvements would reduce congestion, and a combined five respondents from both groups feel they would provide a more predictable travel time. However, most said the improvements would not change their travel behavior.

ES.3.2. Second Round (Focus Groups #3 and #4)

Two focus groups were conducted for SANDAG on May 5, 2005 with regular users of I-5 between Oceanside and the I-5/I-805 split. Respondents were recruited and were screened for using I-5 between Oceanside and the I-5/I-805 split at least three days per week, and balanced by gender, age, and employment status. Potential participants were screened and separated into two groups – one group consisted of those who traveled less than 10 miles per day and the other group consisted of those who travel 10 or more miles per day on the section of I-5 that will have the managed lane facility. The first focus group (#3) had eight participants, while the second (#4) had nine participants.

This second set of focus groups focused on expanding on the results of the telephone survey. Specific questions raised as a result of the telephone survey and explored in the focus group included:

- Why the target audience appears to have a preference for fixed tolls over variable tolling, and
- Why the target audience does not appear to be especially concerned about maintaining a high level of performance in the managed lanes.

ES.3.2.1. SUMMARY OF FINDINGS

- Initial reactions to the project were mixed in both groups. Some felt that the addition of managed lanes to the I-5 was a positive proposal, while others felt the project was not fair or the best use of space or funds.
- There was no clear preference voiced by either group for direct access ramps or slip access and egress points. A wide range of perspectives were provided, but it appears that in general, focus group participants currently do not have enough information to have a strong preference for either one. Some think that direct access ramps are safer and easier because they don't require crossing lanes. Others think that slip access ramps are safer and easier because they could be more frequent, and there is less of an issue about getting up to speed to enter the managed lanes. Participants generally felt that direct access ramps did not justify traveling further or paying a higher toll. The results from this discussion favor providing direct access ramps at the heaviest volume intersections and slip access in-between at lower volume access/egress points.
- For shorter distance travelers there was no clear preference for fixed or variable tolls. However, a majority of the longer distance travelers in the second group preferred variable tolling, and appeared to be more in touch with the concept of using tolls to maintain free flow conditions in the managed lanes.
- Both groups agreed that the toll price and method of calculation must be clear enough for travelers to easily understand it for people to feel comfortable using



the lanes. Participants also recommended posting the time savings that would be achieved if they used the managed lanes.

- The groups generally agreed that free or drastically reduced tolls are necessary to effectively motivate the formation of carpools and vanpools. Focus group participants generally are against raising the number of carpool occupants from two to three, saying that establishing a carpool is already difficult.
- Participants in both focus groups mentioned concerns about fairness and affordability of the toll lanes to all freeway users. The project is more likely to be positively received if it is presented as HOV lanes that will be available to single occupancy vehicles that are willing to pay, so that the new lanes will be used to maximize capacity while maintaining free flow conditions.
- The way the toll is communicated also could be presented as being reduced when lanes are not at full capacity, rather than increased as needed to maintain free flow conditions. This focuses on the positive aspect of reducing costs when possible, rather than the negative aspect of increasing costs to reduce demand for the managed lanes.
- The participants that are long distance travelers appear to better understand and support the concept of congestion-based variable tolling. They are likely to both support and be heavier users of the system. The short distance travelers (which appear to be at least half of all I-5 users) are not as likely to see a clear benefit for the new facility. Clear communications that show how the facility is designed to encourage car/vanpooling (and even Coaster and express bus service), and to pull as much traffic as possible off of the general purpose lanes will generate a more positive perspective among this large constituency.

ES.4 INTERCEPT SURVEYS

To assess the opinions of non-SOV commuters, surveys were distributed on February 7, 2005 on an express bus, the Coaster, and in an Oceanside park and ride lot at the intersection of I-5 and SR 78. Approximately 400 surveys were distributed to yield a total of 353 completed surveys.

ES.4.1. Potential I-5 Improvements

- Eighty-two percent of respondent non-SOV corridor users think that I-5 needs to be expanded.
- Sixty percent of respondents support the proposed idea of one general purpose and two toll express lanes.
- Car/vanpoolers are the most supportive with 90 percent saying the I-5 needs to be expanded and 76 percent supporting the proposed express lane project.

ES.4.2. Tolling

- Thirty four percent of intercept survey respondents believe that a fee schedule set by time of day will encourage carpooling, while only 26 percent believe varying fees by traffic conditions will encourage carpooling.



- Thirty-nine percent of respondents felt that a fee schedule set by time of day will encourage transit usage, while 26 percent of respondents believe fees that vary with traffic conditions will encourage transit usage.

ES.4.3. Proposed Project Opinions

- Alternative mode (non-SOV) corridor users agree that the toll express lane project will make the I-5 safer, that express lanes with reduced or free tolls for carpools will increase carpooling, and that toll lanes are a good way to help pay for freeway expansion.
- More than half of bus and train riders support spending more money on train and bus services, while a majority of car/vanpoolers disagree.
- In contrast, general I-5 corridor users contacted via telephone survey do not feel that money should be invested in buses and trains instead of freeways, and disagree that toll lanes with free or reduced fares for carpools would increase carpooling.

ES.5 TELEPHONE SURVEYS

Random households in zip codes surrounding the I-5 freeway between Oceanside and the I-5/805 split were contacted by telephone during the months of January and February 2005 and asked to participate in the I-5 North Coast Managed Lanes Value Pricing Study Telephone Survey. More than 1,300 households were contacted to yield 804 complete surveys. The following outlines the findings from this survey effort.

ES.5.1. I-5 Usage

- Seventy percent of respondents use the I-5 at least five days per week, with a mean of 4.4 days per week.
- Seventy-six percent are traveling south on the I-5 when leaving from home and travel a mean of 17.5 miles one-way on the I-5. The portion of the trip on the I-5 takes less than 30 minutes for 65 percent of respondents.

ES.5.2. Potential I-5 Improvements

- Forty-six percent of respondents had heard something about potential improvements to the I-5 freeway north of the 805 split. Eighty-one percent recalled the potential improvements as adding lanes to the freeway.
- Sixty-two percent support construction of one new general use lane and two express toll lanes.
- Sixty-one percent felt that the most important benefit of this potential project would be reduced congestion. Thirty percent mentioned reduced commute times.
- The most commonly stated concern (23 percent) with the proposed improvements was that the project would take too long to complete.



ES.5.3. Tolling

- Respondents prefer raised tolls to closed entrances to control congestion and prefer fixed tolls to variable tolls.
- Fifty-two percent felt that variable tolling is not an equitable way to control congestion. However, 56 percent of respondents felt that fixed tolls were fair and equitable.

ES.5.4. Proposed Project Opinions

- Corridor users feel that additional lanes should be built, and they indicate a preference for managed lanes. Respondents also agree that managed lanes can be used to help defray the costs of freeway expansion.
- Although I-5 users believe managed lane expansion will reduce congestion, they are not optimistic about other potential benefits of these lanes such as increased carpooling, improved traffic flow with raised tolls, safer driving, or reduced pollution.



CHAPTER 1

I-5 STAKEHOLDER INTERVIEWS

1.1 EXECUTIVE SUMMARY

This report summarizes 24 stakeholder interviews conducted in November and December 2004 on behalf of the San Diego Association of Governments (SANDAG). Twenty-five individuals were identified as stakeholders whose views were sought on a variety of issues related to the value pricing component of the proposed Interstate 5 (I-5) Managed Lanes in North San Diego County.

The purpose of the stakeholder interviews was to obtain timely public input into a range of policy and operational issues associated with a pricing strategy under consideration for the proposed 26-mile facility configured as two north-bound and two south-bound managed lanes extending from Camp Pendleton in the north to just south of the Interstate 805/Interstate 5 merge in the south. Described to stakeholders as free to carpoolers (HOV-2+) and transit buses, the lanes would permit solo drivers to enjoy uncongested peak period travel for a toll designed to keep the lanes free flowing by managing demand.

Stakeholders were chosen to provide SANDAG with a variety of opinions from key segments of the I-5 Corridor residents and freeway users, including:

- Elected Officials
- Operational Stakeholders
- Community Groups and Interest Groups
- Environmental Groups
- Military Community
- Business and Regional Attractors
- Roadway User Groups
- Interregional Stakeholders

An effort was made to reach stakeholders who might not otherwise be heard from, but who would have a distinct viewpoint regarding the value pricing aspect of the managed lanes. The stakeholder participants also were selected to address potential equity issues associated with designed develop appropriate language for use in the subsequent quantitative research that will be conducted by telephone.

Stakeholders were interviewed in person, and in a one-hour discussion were asked for their views on the following topics:

- Current traffic conditions on I-5
- Experience with and attitudes toward I-15 Express Lanes
- Operational issues associated with managed lanes on the I-5 North Coast Corridor

- Willingness to pay for managed lanes
- Use of toll revenues
- Pros and cons regarding pricing strategies proposed for I-5
- Environmental and equity concerns
- Ideas for other public outreach and market research

1.1.1. Key Findings

People Are Desperate for Mobility Solution on I-5

The daily stress of congested commuting is reaching the breaking point for many, and stakeholders said that managed lanes will be welcomed, for the most part, as one among many needed tools to solve existing and projected traffic problems on I-5. This additional travel choice was generally seen as a good thing by stakeholders.

No Equity Deal-Breakers for Value Pricing on Managed Lanes

Though many stakeholders are sensitive to the plight of low income families and motorists, the managed lanes were seen to be fair because the decision to pay as a solo driver is entirely optional. As long as carpools and transit riders continue to ride free and enjoy free-flow conditions, most stakeholders saw no “real” equity issue. Further, the idea of requiring people to pay for a scarce resource—free-flow peak travel—was viewed as fair in the context of our market economy. However, issues of affordability and perception of equity were still identified as problematic. To some extent, these issues can be mitigated through directing revenues to new, high-quality transit service along the corridor.

Use Revenues for New Transit or Corridor Specific Transportation Improvements

Suggestions for use of toll revenues was strongest for new transit and Transportation Demand Management (TDM) program support, and secondarily for any highway improvements within the I-5 Corridor. Some flexibility for transportation-related expenditures outside the corridor was mentioned, as well as mitigations for freeway impacts to the environment.

Will Managed Lanes Discourage HOV Use in the Long Run?

The most serious and consistent argument against using value pricing on managed lanes was the concern of approximately 25 percent of stakeholders that allowing solo drivers to purchase their way out of congestion, rather than behaving their way out of it, can only serve to undermine regional support for transit and carpooling. This group sees transit as the only real mobility solution in the long term, and value pricing may have the effect of delaying needed social investment to ensure that transit infrastructure is in place when it is needed.

Project Benefits

Most frequently identified benefits of the project are listed below:

- Managed lanes with value pricing provide an effective new alternative for moving people in the I-5 Corridor, and decrease travel time for transit and HOV users. (7)

- New capacity eases burdens on the main lanes, including trucks which may be excluded from the lanes themselves (4)
- Project will marginally reduce air pollution (4)
- The lanes will preserve right-of-way for future high-capacity transit (3)
- Project will improve quality of life by providing people with dependable trip times (3)
- The lanes maximize corridor capacity (3)

Let Caltrans Determine Best Design for Mobility and Safety

Most stakeholders prefer a physical barrier to a painted barrier, but in most other respects are content to allow Caltrans planners and engineers make design decisions based on moving people effectively and safely.

The Jury is Still Out

Responses to a number of questions illustrate the need for additional study of the effectiveness of managed lanes in achieving agreed upon regional transportation goals. Some reluctant or limited support for another value pricing application in San Diego County would be strengthened if monitoring and reporting results demonstrated real and quantifiable travel and quality of life benefits.

Need for Ongoing Marketing, Public Education and Better Facility Signage

The following comments point to a need for a targeted and continuous public information program and more sophisticated and clear signage solutions:

- I-5 is more complex configuration than I-15
- People need to know what revenues are used for
- Better explanation of how to use the lanes and access points
- Better explanation of project benefits to different road user groups
- Better transit and carpool/vanpool information
- International/bi-lingual signage needed

1.2 STAKEHOLDER INTERVIEW PARTICIPANTS

Stakeholder participants are identified in Table 1-1. Shading indicates stakeholders who have particular significance for environmental justice concerns.

**TABLE 1-1
STAKEHOLDER PARTICIPANTS
(ORGANIZATION AND INDIVIDUAL STAKEHOLDER CATEGORY)**

Category	Organization (Shading indicates Environmental Justice stakeholders)	Representative
ELECTED OFFICIALS	Metropolitan Transportation System	Mr. Leon Williams, Chairperson
	City of Vista	Hon. Judy Ritter, Councilmember (Also SANDAG Board Member and Chair, North San Diego County Transit Development Board)
OPERATIONAL STAKEHOLDERS	Caltrans District 11	Mark Baza, Chief, District 11 Planning
	CHP North San Diego County	Lt. Rich Rennie Captain David Webb
	Metropolitan Transit Service	Mr. Gonzalo Lopez, Director for Marketing & Community Relations
	San Diego Association of Governments	Robert Leiter, AICP, Department Director of Land Use and Transportation Planning
COMMUNITY GROUPS AND INTEREST GROUPS	Hispano-Americans for Progress	Louis Martinez, Treasurer (Also City of Vista Traffic Commissioner)
	North San Diego County Branch of National Association for Advancement of Colored People (NAACP)	Reginald Owens, First VP Warner Davis, Second VP
	San Diego League of Women Voters	Grace Roos, Transportation Director
	San Diego Taxpayers Association	Lisa Briggs, Executive Director
ENVIRONMENTAL GROUPS	Buena Vista Lagoon Foundation	Ron Wootton, Executive Director
	San Elijo Lagoon Conservancy	Doug Gibson, Executive Director
MILITARY COMMUNITY	Marine Corps Base, Camp Pendleton	Larry Rannals, Community Plans & Liaison Officer
	American G.I. Forum, Oceanside Chapter	Pete Magana, Secretary

BUSINESS COMMUNITY AND REGIONAL ATTRACTORS	Downtown Encinitas MainStreet Association	Peter Norby, Executive Director
	San Diego Economic Development Corporation	Erik Bruvold, Vice President and Director, Infrastructure Issues
	San Diego County Hispanic Chamber of Commerce	Ceci Cazares, Chair, Legislative Committee
	Del Mar Thoroughbred Club	Tim Read, Director of Operations
	University of California, San Diego	Milton Phegley, Campus Community Planner, Government and Community Relations
SPECIAL ROADWAY USERS	Dimex Trucking	Armando Freire, President
	Lucar Trucking	Yolanda Jimenez, President
	Port of San Diego	Ron Popham, Director, Maritime Services Stuart Farnsworth, Maritime Program Manager
	Automobile Club of Southern California	Dan Beal, Managing Director, Public Policy
INTERREGIONAL STAKEHOLDERS	Southern California Association of Governments	Hasan Ikhata, Director of Planning

1.3 INTERVIEW METHODOLOGY

A stakeholder interview guide was developed by the consultant team and approved by SANDAG and is included in Appendix A of this report. SANDAG mailed invitations to each identified stakeholder and the consultant team followed up via e-mail and telephone to schedule an interview at a time and place of the stakeholders' choosing.

Each stakeholder was interviewed in person, and interviews were designed to take between 45 minutes and one hour, though a number of interviews lasted longer than one hour, with permission of respective stakeholders. The interviewer provided basic information on project design scenarios available at the time. Notes from the interviews formed the basis for individual summaries of stakeholder comments. These were subsequently provided for review by each participant. Stakeholders were given two weeks to make any desired changes or additions to the written summaries. The approved summaries are included in Appendix B of this report.

1.4 STAKEHOLDER RESPONSES

1.4.1. STAKEHOLDER ROLE IN PROJECT PLANNING OR IMPLEMENTATION

Table 1-2 shows how the 24 stakeholder organizations view their respective roles in relation to the project.

TABLE 1-2
PROJECT PLANING OR IMPLEMENTATION ROLE,
BY STAKEHOLDER CATEGORY

Lead Agency or Other Significant Role in Project	Advisory Role (Project Support, Long Range Planning or Operational Involvement on Completed Project)	Limited or No Role Beyond Stakeholder Interview Process
<ul style="list-style-type: none"> • SANDAG • Caltrans - District 11 	<ul style="list-style-type: none"> • Metropolitan Transit System • North San Diego County Transit Development Board • California Highway Patrol • San Diego County Taxpayers Association • SCAG • Automobile Club of Southern California • Port of San Diego • Buena Vista Lagoon Foundation • San Elijo Lagoon Conservancy • San Diego Economic Development Corporation • San Diego County Hispanic Chamber of Commerce • UCSD • Marine Corps Base 	<ul style="list-style-type: none"> • NAACP • Dimex Trucking • Lucar Trucking • American G.I. Forum, Oceanside Chapter • Hispano-Americans for Progress • League of Women Voters • Downtown Encinitas MainStreet Association • Del Mar Thoroughbred Club

1.4.2. CONDITIONS ON INTERSTATE 5

Perception of Existing Conditions

Stakeholders' assessment of existing conditions on I-5 were unanimous and emphatic: congestion is horrible, has deteriorated over the past five to 10 years, and will only get worse in the future.

Typical comments include:

“It gives me a headache.”

“It’s catastrophic.”

“Horrendous. Something to be avoided. Almost constant overflow.”

In addition to simple over-capacity, current stop-and-go conditions are ascribed to bottlenecks at transitions, lane drops, highway construction, and accidents.

Likely Future Conditions

Stakeholders are not optimistic about the region’s ability to solve future projected transportation problems and do not see easy solutions. A number of stakeholders echoed the observation that “By time the engineers build a solution, the demand has surpassed the designed capacity.” For about a quarter of stakeholders, this means that land use and transit or truly high occupancy solutions will be needed to meet future mobility needs.

Importance of Providing Mode Choice on Interstate 5

All stakeholders expressed support for modal choice along the I-5 Corridor. The differences among stakeholders related to the strength of that support—ranging from a belief in the general benefits of “more choice” in the mobility marketplace to a strong commitment to multi-modal transportation and significant investment in transit.

1.4.3. I-15 EXPRESS LANES: FAMILIARITY AND ATTITUDES

Familiarity

The proposed expansion of the existing I-5 freeway would add two additional express lanes and one general use lane to the highway that is generally four lanes wide. This was explained to participants with the use of photo images and artistic renderings to give them a feel for the project.

Most stakeholders were familiar with the existing I-15 Express Lanes, but only a handful had used them as toll-paying customers. This small group felt the tolls provided value, but most agreed the facility was too short, and that merging back into main lanes was a problem until recent Caltrans improvements were completed.

Another set of stakeholders used the lanes as a member of a carpool on a regular or occasional basis. Some don't use the lanes because the limited access precludes it. Approximately half the stakeholders had not used them at all, but were generally familiar with them. Of this latter group, many felt that signage and marketing of the lanes was inadequate, and that information on how to use the lanes as a carpool or transit rider was similarly lacking. A few stakeholders expressed confusion about how and where to enter the lanes, and felt the I-15 facility did not compare well with the Orange County toll roads in terms of user-friendliness. Also of note is that people believe the tolls vary in relation to main lane congestion, rather than express lane volumes. Nor do they know what the toll revenues are used for.

Are the I-15 Express Lanes Fair?

Fifteen stakeholders, three-fifths of those interviewed, believe that managed lanes are fair. When asked what fairness means to them, they responded as follows:

- It's an option to pay for premium service and speeds are maintained for HOV and transit, who still ride free.
- Everyone, even moderate income families, will find them worthwhile sometime
- Solo drivers help pay, and carpoolers enjoy free-flow conditions
- It encourages carpoolers, and the more carpoolers, the tolls rise and reduce solo drivers
- It's fair to charge for a scarce resource, i.e., free-flow peak period mobility—we can't build a lot more lanes
- The toll is worth the value provided
- Fair as a demand management tool
- Unfairness would not necessarily be a reason not to utilize tolls as a tool

Five stakeholders gave a qualified “Yes, but...” and noted the following reservations with respect to the fairness of the I-15 managed lanes:

- They're fair, but the tolls are a burden on low income motorists
- Fair in terms of value received, but not social equity, or possible perceptions of inequity

Three stakeholders said flatly that the lanes are not fair, and offered the following comments as explanation:

- It's not fair for those who can afford to, to pay and avoid congestion without having to change travel behavior
- Don't reward an undesirable behavior just because a person can afford it
- Wasted space is not fair to anyone

Do Managed Lanes Provide an Efficient Mobility Option?

Thirteen stakeholders believe the I-15 Express Lanes provide an efficient mobility option for corridor travelers because:

- They maximize existing capacity
- More choice is good
- They save time

One stakeholder noted that the lanes are not as effective as they should be, however, because the pricing is sometimes badly applied, and there are reports of faulty transponders that compromise revenue collection as well as demand management effectiveness.

Four stakeholders said the I-15 Express Lanes are not effective, noting that:

- In the long run, they will or may diminish support for and utilization of HOV lanes/transit
- They encourage sprawl by reducing trip times for those willing to pay
- Better to create three general purpose lanes, using the two HOV lanes plus the wasted space used by barriers
- They don't reduce congestion in adjacent general purpose lanes
- They create as much congestion as they reduce (at transitions)

Four stakeholders were neutral on the subject. Their comments were as follows:

- "Theoretically they save time—but you lose it merging back into main lanes
- Better to have general purpose lanes
- Possibly efficient—but probably don't encourage new carpool formation
- More study needed

Applicability to I-5

Twelve stakeholders would like to see value pricing on I-5 managed lanes, but several would approve only with conditions:

- As long as there are alternatives
- As long as it keeps traffic moving
- As long as lanes are added, and no general purpose lanes are taken
- As long as transponders are interoperable on all California toll roads

Six more stakeholders give reluctant approval to an I-5 pricing strategy, noting the following:

- As long as HOV lanes are going to be built, they should be managed lanes
- Depending on what revenues would be used for
- As long as it was proven that the lanes don't discourage carpooling
- Future congestion may make HOVs and transit so desirable that value pricing is not necessary
- As demonstration project only, with sufficient monitoring and reporting to verify results

Four stakeholders do not want pricing on I-5 at all. One suggested that SANDAG either add general purpose lanes or use the space for light rail.

1.4.4. STAKEHOLDER CONSTITUENT ISSUES

Stakeholders were asked about the concerns of their organization's membership or constituency. Although Table 1-3 illustrates a range of concerns that reflect specific organizational purposes, the following issues were among those most often mentioned by stakeholders:

- Need to provide mobility options now
- Ensure current decisions meet future demand
- Maintain regional economic competitiveness
- Prioritize transportation investment for HOV—to move people, not vehicles

TABLE 1-3
COMMUNITY CONCERNS BY STAKEHOLDER CATEGORY

Category	Identified Concerns
Elected Officials	<ul style="list-style-type: none"> • Need to provide transit alternatives • Need to give citizens options • Need to provide solutions to mobility needs now and plan for future
Operational Stakeholders	<ul style="list-style-type: none"> • Options to fund and to serve transportation needs • Getting people to work • Moving people, not vehicles • More congestion = more frustration = more accidents • Safe law enforcement activity for officers and motorists—more difficult with more congestion • Goods movement
Community & Interest Groups	<ul style="list-style-type: none"> • Congestion and mobility • Ability of transportation system to keep up with residential growth • Ensure project costs are reasonable • Appropriate use of toll revenue • Support for widening the freeway • Affordability of tolls • Truck/car conflicts • Priority for high occupancy vehicles
Environmental Groups	<ul style="list-style-type: none"> • Footprint intrusion into wetlands Economy/transportation nexus • Air quality
Military Community	<ul style="list-style-type: none"> • Mobility needs of low income Marines • Needs of no- or one-car households on the base
Business & Regional Attractors	<ul style="list-style-type: none"> • Regional congestion reducing competitiveness • Priority for high-occupancy vehicles • Congestion on and near freeway on-ramps and off-ramps, and long queuing to access the freeway • Arterial congestion related to freeway • Housing availability and affordability • Paying for transportation infrastructure
Roadway User Groups	<ul style="list-style-type: none"> • Traffic congestion—cost in time and money • Mobility and quality of life • Price of fuel • Goods movement • Stress on truck drivers • Proposition 42 “rip-off”
Interregional Stakeholders	<ul style="list-style-type: none"> • Interregional connectivity and transportation system continuity • Performance of solutions chosen • Environmental Justice

1.4.5. MANAGING DEMAND

Limiting Physical Access vs. Using Tolls to Manage Demand

Seven stakeholders thought it best to use a combination of physical access control and tolls:

- But use physical closures only in emergency
- Offers most flexibility
- Ameliorates impact on low income motorists
- Requires good signage and solution to re-route people whose normal pathway is closed

A “tolls only, or primarily” solution was favored by six stakeholders:

- Otherwise geographic inequities could arise; also safety problems
- Closing access normally open would result in irate drivers—disrupting their expectations
- Closing physical access will erode support for the project and compromise operation of the system
- If people go to the trouble of carpooling, they shouldn’t be denied access physically.

One stakeholder favored physical access primarily or only. Four stakeholders were willing to let Caltrans decide based on safety and performance. Five had no opinion or were not sure. Ambivalence stemmed from the recognition that, though physical access provides equal, but limited, opportunity to use the lanes; tolling is more convenient. However, tolling has inherent equity problems, at least in terms of perception of fairness, say some stakeholders.

Impact of Managed Lanes on Travel Behavior

Half of the stakeholders felt that strong ridership on and demand for Coaster services indicated a good potential to increase freeway based transit ridership on the managed lanes with bus rapid transit (BRT). Several thought that ridesharing participation would get a boost because the facility would provide trip time benefits for those modes. However, others felt that this was a minimal possibility, and would not, in any event, have a significant impact on overall congestion. Several stakeholders referred to the overriding issues of sprawl and lack of close-in housing that is affordable. These contributions to freeway demand swamp any efforts to ameliorate congestion through transit and carpooling. Finally, several referred to Californians’ love for their cars, and the relative lack of investment in high-quality transit service that can effectively compete in the mobility marketplace.

Will managed lanes encourage transit and ridesharing compared to driving alone? Approximately one third of stakeholders expressed great concern that value pricing on the managed lanes would severely undermine current and proposed transit and HOV plans. By allowing solo drivers to pay to avoid congestion, without going to the trouble of carpooling or taking the bus, society is sending the message that HOV modes are “second-best” say some stakeholders. This segment of stakeholders believes we should adopt a consistent and strong position of support for the *only* strategy that will accommodate future demand: high occupancy vehicle modes, with an emphasis on

premium transit and convenient feeder and local circulation networks designed to severely reduce the need for and attractiveness of solo driving.

Other stakeholders support new solo driving options that can provide reliable trip times on congested corridors as a matter of personal choice, and admitted that this means more solo driving on HOV lanes. For residents of communities located between I-15 and I-5 such as Vista, managed lanes on I-5 means they will have a new route choice available to them, especially for trips to San Diego.

Managed Lanes' Effectiveness in Moving People

Stakeholders were asked whether they thought managed lanes with value pricing were more or less effective, lane for lane, at moving people than regular HOV lanes or main lanes. Responses are summarized in Table 1-4.

Those who thought they were more effective attributed that result to managed lanes' ability to more efficiently use all available capacity, coupled with the free-flow conditions lacking on main lanes during peak periods. Several critics of value pricing felt that the only reason value pricing might increase people-moving capacity of lanes was due to lack of commitment to high quality public transit networks within the region, and the absence of local feeders to collect and distribute people to and from major transit routes.

**TABLE 1-4
HOW WELL DO MANAGED LANES MOVE PEOPLE?**

More Effective than Regular HOV Lanes?	Number of Responses
YES	10
NO	5
DON'T KNOW	6
More Effective than Main Lanes?	Number of Responses
YES	11
NO	3
DON'T KNOW	5

1.4.6. ACCESS AND EGRESS

Number of Access Points

Stakeholders recognize the tradeoff between access and operational complications due to merging and weaving. In general, four- to seven-mile spacing for DARs seemed appropriate to stakeholders. Suggestions for specific access points included:

- Locate access to prioritize through-traffic and longer trips
- Limit access (the definition of express lanes) but provide good directions to major destinations
- Spacing isn't the issue—just respond to the need
- DAR at Palomar Airport Rd. or Poinsettia
- Remove either Santa Fe or Birmingham, or combine them if there is enough room; freeway is already very narrow at that location
- Fewer access points means less merging and weaving
- Put slip ramps where needed, but don't cause congestion
- Base access on hard throughput data, not political influence
- Design access to accommodate new and proposed future development
- DAR at SR 56 is needed
- The more open the facility can be, the better
- Concern about the Del Mar area—Caltrans needs to examine origins/destinations carefully
- Get community input on this issue
- Choose safety over convenience
- Respond to local travel patterns and needs

Ingress/Egress Priority

Most stakeholders felt that anybody eligible to drive in the managed lanes should be able to access them at any point. Though some exceptions could be made for direct access ramps, anything else seemed too complicated to explain and difficult to manage physically.

Stakeholders had more support for prioritized egress, however. Transit and to a lesser extent carpools and vanpools got the nod for priority treatment in merging back into main lanes. Some stakeholders mentioned the operational advantage of dispersing merging-related weaving over a longer physical distance.

Painted vs. Physical Barriers

When asked whether they preferred physical barriers or painted buffer to separate the main lanes from the managed lanes, most stakeholders chose physical barriers (12 responses). However, if physical barriers are chosen, there should be adequate shoulders on each side of the managed lanes so vehicles aren't too close to the concrete, and periodic breaks for enforcement activities and emergency vehicles must be provided. Nine stakeholders either had no opinion or thought Caltrans should make the determination. Four stakeholders preferred painted lane separators. One stakeholder suggested that a mix of barriers could be used, as appropriate to the physical constraints and traffic volumes for each segment.

The reasons provided for their choices are listed below.

Physical is better:

- Painted barrier creates temptations to cheat, and is unsafe because of that
- Painted barrier is “not a starter” for Caltrans in all likelihood
- Physical barrier can carry embedded Intelligent Transportation Systems (ITS) equipment in the future for electronic vehicle guidance
- Truckers would rather run into a concrete barrier than a vehicle, if they fall asleep

Painted is better:

- Offers flexibility in case of emergency
- Allows for changes in access points based on changing demand over time
- Better to start with painted barriers, then move to physical barriers if necessary
- Physical barriers can cause more accidents than they prevent
- Visual impacts of physical barriers can be a reason to oppose the project

Let Caltrans Decide/No Opinion:

- Choose the option that minimizes lane violations and improves mobility
- Make choices clear to drivers
- Base decision on safety factors
- Use whatever allows for better demand management

1.4.7. SIGNAGE AND TOLL INFORMATION

Although most stakeholders had high praise for Caltrans signage in general, they were split on the issue of how well signed I-15 Express Lanes are. Stakeholders noted that I-5 is a more complex system than the Express Lanes on I-15. Concern about I-5 signage stems from the need to alert people in sufficient time about upcoming choices. Several

have hopes for information technology and global positioning system (GPS) solutions by time the facility opens in 2014.

1.4.8. TOLLS

Willingness to Pay

Stakeholders were asked for their reaction to a toll level of \$6 during the peak, to save 24 minutes traveling the 26-mile length of the proposed managed lane facility. Seven stakeholders would leap to grab such a bargain. A group of nine other stakeholders felt that the \$6 toll was fair for the benefit described, and that most people would find it worthwhile under some circumstances. Three stakeholders were concerned that, while the fee might be worth it to a few, the toll would not be affordable for many corridor travelers. One person thought it would encourage carpooling among the less affluent. And while one stakeholder acknowledged that the toll needed to be high enough to represent a real premium for a valuable benefit, another expressed complete disagreement with the tolling concept, and said the \$6 was simply too high.

How Should Toll Revenues be Spent?

Stakeholders were asked how they would like to see net toll revenues spent. This information is summarized in Table 1-5. Note that many stakeholders identified more than one appropriate target for revenues, and some expressed no preference.

Transit service was the overwhelming favorite use for these revenues and half of stakeholders were strong advocates of transit as the *only* use of toll revenues. Further, these advocates want to make sure that the service is high-quality transit service that can compete effectively against the advantages of driving alone.

All but one stakeholder thought monies should be spent in the corridor from which they were generated. No one thought they should go to “any social purpose,” although a handful believed that general mitigation of freeway impacts was a legitimate use of toll revenues, and that corridor cities could therefore qualify as legitimate recipients of those revenues. One suggestion for a flexible approach was that each corridor be granted some autonomy in determining use of toll revenue. A few mentioned that the amount of net revenue involved is not likely to be significant.

**TABLE 1-5
STAKEHOLDER PREFERENCES FOR USE OF TOLL REVENUES**

Preferred Toll Revenue Use	Number of Responses
<ul style="list-style-type: none"> • New transit service on I-5 North Coast (BRT and premium transit service) 	10
<ul style="list-style-type: none"> • Any transportation-related improvement along I-5 Corridor (extend managed lanes, improve arterial feeders to freeways, improving ramps, and improve the driving experience) 	7
<ul style="list-style-type: none"> • Carpool/vanpool program support and transportation demand management (TDM) 	5
<ul style="list-style-type: none"> • Any transportation-related improvement in San Diego County, including goods movement 	4
<ul style="list-style-type: none"> • Environmental and environmental justice purposes (e.g., mitigate planting of invasive species, improving parks and wetlands, improving water quality to mitigate runoff impacts, and mitigating social impacts) 	4
<ul style="list-style-type: none"> • Pay for managed lanes facility itself, including ongoing maintenance 	2
<ul style="list-style-type: none"> • Information and marketing 	1

1.4.9. SAFETY, ENFORCEMENT, AND RELATED OPERATIONAL ISSUES

Issues identified by stakeholders are listed below, in descending order of frequency:

- Let Caltrans decide these issues based on safe and efficient operation of the freeways (5)
- Use physical barriers/concerns about merging and weaving associated with painted lane separators (4)
- Concern about enforcement areas/suggestion to locate enforcement and breakdown areas to the left of the managed lanes. (4)
- Caltrans might want to consider photo enforcement (2)
- Need for better signage (1)
- CHP notes difference in approach to design between CHP (safety focused) vs. SANDAG and Caltrans who have a mobility and engineering perspective (1)
- Keep emergency vehicle turnaround areas at Federal Highway Administration (FHWA) standards (1)
- Keep the rules and design simple in order to help people obey the laws (1)
- Exclude trucks from the managed lanes (1)
- Concern about blinding headlights from opposing traffic (1)

Stakeholder views on treatment of managed lanes scofflaws are as follows:

- Violators should get a regular CHP traffic ticket (2)

- It's ok to apply both a toll-related fine and HOV lane violation (1)
- Get HOV violation mailed to them (\$341) (1)
- Toll based penalty is preferable (1)
- Not sure about violations (1)
- Apply either toll-related fines or HOV lane violation citations, but not both (1)

1.4.10. ENVIRONMENTAL ISSUES

Environmental impacts identified by stakeholders are summarized in Table 1-6. Several stakeholders pointed out that toll revenues could be used to offset environmental impacts of the freeway widening itself. Four stakeholders did not anticipate any environmental impacts associated with value pricing, six declined to respond, and one thought it was too difficult to quantify such impacts. Of those identifying impacts, it is important to note that positive environmental impacts were associated with value pricing on HOV lanes, due to anticipated reductions in vehicle emissions. The two lagoon conservancy organizations hoped for improvements in water quality of the lagoons due to negotiations with Caltrans designed to reduce current impacts of structures crossing the lagoons. However, both these organizations equated any additional freeway surface with additional environmental impacts.

**TABLE 1-6
POTENTIAL ENVIRONMENTAL IMPACTS**

Negative Environmental Impact Identified	Number of Responses
• Property takes	4
• Noise	3
• Air quality	3
• View shed impacts	2
• Water quality	1
• Lagoon crossing impacts	1
• Planting non-native species	1
Positive Environmental Impact Identified	Number of Responses
• Reduction of vehicle emissions (improved traffic flow and/or encouragement of clean air vehicles and higher-occupancy of vehicles)	6
• Lagoon overcrossings improved	2
• Potential to locate transit-oriented design and bus rapid transit stations at direct access ramps	2

1.4.11. PROJECT BENEFITS

Although many stakeholders did not articulate specific project benefits, it was clear from their responses to other questions that they saw value in having a congestion-free travel alternative during peak periods. Explicit stakeholder descriptions of project benefits are listed below, in descending order of response frequency (noted in parentheses).

- Managed lanes with value pricing provide an effective new alternative for moving people in the I-5 Corridor, and decrease travel time for transit and HOV users. (7)
- New capacity eases burdens on the main lanes, including trucks which may be excluded from the lanes themselves (4)
- Project will marginally reduce air pollution (4)
- The lanes will preserve right-of-way for future high-capacity transit (3)
- Project will improve quality of life by providing people with dependable trip times (3)
- The lanes maximize corridor capacity (3)
- The lanes manage demand effectively (2)
- Can serve as emergency evacuation lanes (1)
- Preserves right-of-way for any future purpose (main lanes, transit or truck lanes) (1)
- Facility is free to transit riders and those who rideshare (1)
- Tolling helps pay for new infrastructure (1)

1.4.12. PROJECT CONCERNS AND CHALLENGES

Operational Issues

- On-ramp queuing backing up onto arterials, especially at major regional destinations (2)
- Are managed lanes the best use of the pavement? Opposed to 400-space park-and-ride lot at Manchester (1)
- Twenty mile bottleneck will be created when the lanes end at Vandegrift Rd. and pick up again in Orange County will create congestion and air quality impacts for Camp Pendleton (1)
- Challenge of providing safe and effective enforcement (1)
- Ensure that buses can travel uninterrupted, giving people a real time-saving, money-saving and convenient alternative to solo driving (1)
- Need to integrate transit plans into I-5 widening plans (1)
- Plans to use shoulders for transit takes away from breakdown and enforcement areas (1)

Construction Issues

- Should this be a 10+4 or an 8+4 facility? (1)
- Sheer physical problem of constructing the lanes—the staging—is daunting (2)
- Length of construction time, especially for structures (2)
- Ensuring good benefit to cost ratio and keeping costs reasonable (1)
- Keep the pavement footprint as small as possible to reduce lagoon impacts (1)

Pricing Issues

- Will the pricing be designed to accommodate through-trips or shorter, local and regional trips? (1)
- Preserving mobility for low- and moderate income people (1)

- Maintaining free access for carpools (1)
- Lanes might discourage carpool formation or investment in transit (4)
- Toll affordability (2)

Marketing and Public Information Issues

- Caltrans needs to educate the public about how and why they build certain segments of the facility first (1)
- Public expectations (and misconceptions) that an extra lane will cure all problems (1)
- Educational challenge to avoid potential public confusion about the lanes (1)
- Educational challenge to dispel misconceptions about fairness and inform people of project benefits (2)

1.4.13. OPERATIONAL SUGGESTIONS

Although stakeholders have great confidence in Caltrans District 11 to “figure it out,” the following list of suggestions reflects some specific concerns about the facility.

- Must be a direct connection at SR 76 (3)
- Provide dedicated on-ramps/off-ramps (2)
- Better signage needed at SR 56 to help drivers get into the desired lane without having to make dangerous last minute merging (1)
- Design well-located parking structures connected to good community shuttle service to resolve congestion problem at Genesee Avenue and Campus Point near UCSD (1)
- Get better origin/destination information to plan overall transportation network (1)
- Make the lanes general purpose (1)
- Extend the lanes farther south (1)
- Carry the lanes north to connect to Orange County freeway improvements (1)
- A critical piece for Port of San Diego is the I-805 traffic after completed SR 56, as well as interchanges along the “S” curve that are overloading I-5, making it difficult for trucks leaving the Port (1)
- BRT and DARs need to be located in order to serve major attractors and employment patterns (1)
- Take advantage of great opportunity for joint development and transit-oriented design at the DARs (2)
- Develop high-quality transit feeder service needs to serve both the DARs and the destinations (1)
- The region should plan on giving more and more lane capacity to buses as congestion increases over time. Since interregional travelers may also be attracted to BRT the region needs to preserve capacity for that (1)
- Build barrier separated outside auxiliary lanes that would facilitate shorter trips and keep people off the main freeway lanes. (1)

1.4.14. ENVIRONMENTAL JUSTICE

Equity

Responses to a question asking stakeholders for their views regarding the equity of value pricing on managed lanes are summarized according to stakeholder category in Table 1-7 (Response frequency is in parentheses). For nearly all stakeholders, toll non-

affordability for low income travelers is troubling, but because use of the lanes is optional, and transit and HOV users retain free access to a new facility, equity problems are minimized to non-existent. And stakeholders recognize that for everyone, time will be valuable enough at some point to make the availability of a reliable and quick trip a worthwhile project benefit.

TABLE 1-7

DOES VALUE PRICING ON MANAGED LANES POSE AN EQUITY PROBLEM?

Stakeholder Category	Equity Concerns (Number of Responses)
Elected Officials	<ul style="list-style-type: none"> • Not an issue because tolls are a choice and HOV is free (1) • Equity is an issue and can be somewhat mitigated with premium transit (1)
Operational Stakeholders	<ul style="list-style-type: none"> • Address equity concerns through community involvement process (1) • Not an issue because tolls are optional and HOV is free (1) • Unfairness of income differential recognized (1) • Address income inequity through other means (e.g., vouchers) (1) • Market mechanism and transit service will promote transit ridership, so not "unfair" (1)
Community & Interest Groups	<ul style="list-style-type: none"> • Not an issue because tolls are a choice and HOV is free (3) • Equity issues are income-related, not ethnicity related, though there is an overlap (1) • Equity (affordability) is a problem, but transit subsidies could help mitigate (1) • Equal access to managed lanes for all communities is an equity issue (1)
Environmental Groups	<ul style="list-style-type: none"> • No opinion (1) • Unfairness could be mitigated with appropriate use of toll revenues (1)
Military Community	<ul style="list-style-type: none"> • Equity issues are income related, not ethnicity related, though there is an overlap (1) • Ethnic communities along alignment might object to impacts of freeway widening, but not value pricing (1) • Not an issue because tolls are a choice and HOV is free (1)
Business & Regional Attractors	<ul style="list-style-type: none"> • Only a pure toll road is supportable—everyone pays for the road itself (1) • The only equity issue relates to maximizing access to the lanes for all communities (1) • Rebate to low income people and free HOV access will help mitigate equity impacts (2) • If managed lanes help workers get to better jobs, that's a built-in mitigation of the lanes (1)
Roadway User Groups	<ul style="list-style-type: none"> • Not an issue because tolls are a choice and HOV is free (2) • Society charges for all goods and the benefits help mitigate those costs (1) • More a perception issue than a real issue, since everyone's time is valuable (1)
Interregional Stakeholders	<ul style="list-style-type: none"> • Both costs and benefits in public and private sector need to be weighed and balanced against each other; equity impacts are mitigated by transit/HOV free access and possible alleviation of congestion on main lanes

Stakeholders' Assessment of Public Perception of Project Fairness

Although several stakeholders recognized the statistical overlap between some ethnic groups (primarily Black and Hispanic), they agreed that the primary impact is that the lanes are not affordable—at least on more than an emergency or occasional basis—to low income individuals. Most stakeholders thought those who use transit or rideshare would be very happy with the managed lanes facility on I-5, but that some resentment might arise from main lane motorists who chose not to pay or use HOV modes. Stakeholders (including trucking industry representatives) felt that truck drivers would be relieved by any strategy that helped reduce traffic in the main lanes.

1.4.15. UNDERREPRESENTED GROUPS

Many stakeholders did not feel sufficiently familiar with the corridor communities to identify specific underrepresented groups. One stakeholder stated that highway advocates tend to be *over*-represented in transportation decisions. And a few noted that the I-5 Corridor is generally affluent, heterogeneous, fairly well educated, sophisticated about travel, and very vocal. However a few stakeholders thought that the following groups tended to be underrepresented in regional transportation decision making processes:

- Transit riders
- Southern part of the county (strong *TransNet* supporters) vs. North (*TransNet* beneficiaries)
- Less affluent
- Regular freeway users and the public at large
- Service unions
- Mexican-Americans
- Samoan population
- Native Americans (inland)
- Chambers of Commerce, Auto Club, and Endangered Habitat Group
- Seniors
- High school students
- Farm workers and domestic workers
- Residential communities adjacent to facility (at least they *feel* underrepresented)
- Goods movement community (“Freight doesn’t vote.”)

1.4.16. LIKELY SOURCES OF PROJECT SUPPORT AND OPPOSITION

Many stakeholders declined to guess where support or opposition for an I-5 managed lane facility would come from. Those who did respond tended to think that most corridor travelers, including weekday commuters and weekend recreational travelers, would be supportive. Opposition would likely come from two extremes: people who think that all lanes should be general purpose lanes, and those who think that any new capacity is sprawl-inducing and leads to environmental problems rather than better mobility.

1.4.17. PROPOSED SURVEY QUESTIONS

Stakeholders were informed that an 800-household random digit dial telephone survey of I-5 Corridor households would be conducted in 2005, as part of the study’s public outreach program. They provided the following suggestions for survey questions:

Transit and Vanpooling/Carpooling vs. Pricing on the Managed Lanes

“Would you be more likely to use bus rapid transit that used this corridor if you lived within walking distance to a station? What is the likelihood that you would also be willing to drive to a park and ride lot at one of the new direct access ramps, or join a carpool to reduce 24 minutes for a peak hour trip?”

“Why are you opposed to carpooling?”

“Would the value pricing component of this project encourage you to carpool, vanpool or take transit?”

We don’t need to ask people if congestion is a problem. Instead, ask, “Would you use the managed lanes? Would you be more or less likely to join a carpool if the lanes were restricted to carpools? Would you use bus rapid transit? Where do you need to get? (What are your origins and destinations?)”

“Do you want these lanes to be limited to high-occupancy vehicles, or do you want to include value pricing on them to permit solo drivers to buy their way onto the lanes?”

“If you could get to point A to point B without a car, what do you need your car for? What would it take to get you out of your single occupancy vehicle?”

Ability and/or Willingness to Pay

“Would you be able to afford this? Are willing to pay x dollars for x benefit?”

“At what price would you *not* use the lanes?”

Use of Revenues

“Would you support directing some portion of net toll revenue to community enhancement and environmental protection projects along the I-5 corridor?”

Solving the Mobility Problem

“If you accept that we don’t have enough resources, would you rather pay a toll, pay through property tax, sales tax, or gas tax? If you don’t like this, what do you like?”

“Do you think it is reasonable to expect a long term solution to I-5 corridor mobility problems by catering to the automobile only? If not, how would you rate the importance of adding serious transit solutions into the mix?”

Process Issues

“Would creation of a Citizen’s Oversight Committee increase your support for the managed lanes?”

“Agencies can maximize either the amount of community outreach and consensus building, to meet the concerns of neighbors immediately along the freeway, or build the project as soon as possible? On a scale of one to five, should we take time to develop consensus, or should we build the project as soon as possible, with as much fairness as possible [reimbursing people for property impacts in accordance with state law]?”

Goods Movement

“How important is it to you that your daily goods arrive at the store? If you knew that there would be fewer trucks on the roads during the peak period and that your stores would be more efficiently stocked? Would you be willing to allow **exclusive** use of the managed lanes by trucks during off-peak hour? One lane? Would you be willing to allow them at off-peak with no toll? Or a toll that would be reimbursed through federal gas tax rebate?”



CHAPTER 2

I-5 FOCUS GROUPS

2.1 FIRST ROUND (FOCUS GROUPS #1 AND #2)

2.1.1. Key Findings

- Focus group participants were generally familiar with Southern California toll roads and understand how they operate. Usage was mixed, but several had used one of the toll roads in the past.
- Participants provided mixed to positive comments on existing toll facilities, noting that there are potential problems if accidents occur in the lanes, and at the egress points where merging with the other lanes is problematic.
- Participants are moderately positive to the idea of improvements on I-5, although enthusiasm for the project depends on the level of use, with those who have longer trips being somewhat more supportive.
- Both groups felt that continued population growth will have a large impact on freeway conditions, and it is unlikely that the suggested improvements will be able to 'solve' congestion problems.
- Participants voiced concerns about construction-related congestion and how long it will take to complete the improvements.
- There were also some concerns voiced about environmental impacts including noise, visual impact, and the effect on wildlife.
- Preference for a barrier type between managed and general purpose lanes was mixed, with concern about accidents being an important factor in the first group's preference for painted lines. The second group preferred some type of soft barrier (pylons) that would enable drivers to enter/exit the managed lanes in case of an accident, but deter people from entering and exiting illegally. Most do not like hard barriers because of the inability to get in and out in case of an accident.
- Both groups are in agreement with access/egress points being three to five miles apart. Concern about merging safety is an important consideration in preferring that they be no more frequent than every three miles, and concern about construction cost and the ability to get into the system play a role in the maximum distance of five miles.
- In general, participants are not interested in a freeway expansion that does not include at least one additional general purpose lane.
- A majority of the first group, but only a third of the first group indicated that they would be willing to pay anything to use the managed lanes, and very few were willing to pay \$5 or more.
- Three people from each group feel that the improvements would reduce congestion, and a combined five respondents from both groups feel they would provide a more predictable travel time. However, most said the improvements would not change their travel behavior.



2.1.2. Background

Two focus groups were conducted for SANDAG on November 16th, 2004 with regular users of Interstate 5 (I-5) between Oceanside and the I-5/I-805 split.

The groups were conducted at a focus group facility in Northern San Diego near the I-5/I-805 split. Respondents were recruited by telephone by Strategic Consulting & Research. Participants were screened for using I-5 between Oceanside and the I-5/I-805 split at least three days per week, and balanced by gender, age, and employment status. The first focus group had seven participants, while the second had nine participants. Please see Appendix C for more information on these participants.

The main objective of the focus groups was to understand the reactions of I-5 users to a proposed expansion of that freeway to add one additional general purpose lane and two managed lanes to each direction of the freeway. The focus group also was used to develop appropriate language for use in the subsequent quantitative research that will be conducted by telephone.

The primary purpose of the focus groups was to understand participants' perceptions of and reactions to:

- Current traffic on I-5
- Other managed lane facilities in Southern California
- Proposed expansion of I-5
- Types of managed lanes
- Willingness to pay for managed lanes
- Environmental and fairness concerns

2.1.3. Focus Group Participants

While focus group participants were recruited to balance age, gender and employment levels, and screened for those who used I-5 three or more days per week, the first group of participants appeared to be more likely to commute longer distances to work on a daily basis. The second group had a higher proportion of participants that worked at home or close to their home, and used the freeway for shorter distance trips. The difference in group composition may have been a factor in the differences in discussion between the two groups.

2.1.4. Responses to Topic Presented

Toll Roads In Southern California

Focus group discussion began with the participants introducing themselves and explaining their use of I-5. This information is summarized in Appendix C and D.

Discussion then proceeded to the participant's familiarity with and usage of the toll managed lanes in Southern California, such as the I-15, State Route (SR) 91 between Orange and Riverside counties, and SR 73 in Orange County.

Focus Group 1

- The first group of participants appeared to be more familiar with the toll roads, both in usage and understanding how they functioned.



- Perceptions of the effectiveness of toll roads varied, depending primarily on the road discussed.
- Three participants in the first group had used the express lanes on I-15 and felt that the general purpose lanes tend to move faster than the carpool lanes.
- Some cited concern that the managed lanes seem to exit at very congested areas of the freeway, which eliminates the benefit of using them.
- Participants understood that payment was made using a fast track pass, and also noted the use of reversible lanes on this highway.
- Skepticism about the value of the lane given its short length was also expressed.
- Two participants mentioned SR 91 and noted that it also is very congested. The point was made that if there is an accident in the express lanes, then traffic is stuck.
- One participant in the first focus group recalled using the SR 73 and having a great experience as there is little traffic.

Focus Group 2

- The second focus group was familiar with the toll roads of southern California, but only a few participants had used them.
- Two participants recalled using the I-15 Express Lanes.
- Two participants had used SR 91.
- One participant was amazed and delighted by how fast traffic went when she used it. However, this user got on the express lanes by accident and did not realize that it was a toll road.
- Two participants explained that a toll road should have the fewest number of exits possible because it discourages use by people who have shorter trips.
- Another participant liked the idea of reversible lanes that change depending on how heavy traffic is.

Proposed Changes To The I-5 North Coast Facility

The proposed expansion of the existing I-5 freeway would add two additional express lanes and one general use lane to the highway that is generally four lanes wide. This was explained to participants with the use of photo images and artistic renderings to give them a feel for the project.

Initial Reactions

Initial reaction to the proposed changes was tepid for both groups. Many expressed that the additional lanes would quickly fill with traffic, and others expressed fairness or environmental concerns. Those who were more positive about the proposal suggested flexible reversible lanes and suggested free or reduced fees for alternative fuel vehicles and carpools. Many participants in both groups were resigned that there aren't any improvements that could solve traffic problems due to increases in population and the lack of alternatives to driving.

One participant in each group stated that they would prefer a high-speed train.



Focus Group 1

- Several participants in the first focus group expressed concern that additional lanes would simply fill with vehicles and the problem would not be solved.
- Participants made points about the length of time and amount of money a project like this would take, and congestion effects of construction.
- Others commented on the issue of fairness in regard to payment, and expressed concern that only people who can afford it would be able to use the lanes. This group roundly agreed that they did not wish to pay for these lanes as they already pay taxes.
- Although this group had concerns, they also commented that flexible and reversible lanes (i.e., ability to move the center median barrier to allow for more lanes in the direction of peak travel flows) were an important aspect of this proposed expansion.
- One participant wanted flexible carpool lanes to use in non-peak times in case of road construction or accidents.
- Although some doubted that the expansion would alleviate congestion, one participant stated that he would be willing to pay a fee for free flowing traffic.

Focus Group 2

- The second group also reacted with concerns about the proposal. However, this group focused on the environmental effects. One participant commented about sound barriers and the communities that might be affected. Several commented on the potential for damage to the views, hillsides, and wildlife.
- This group also explained that with population growth in the area, the proposed expansion would not solve the problem of more traffic on the freeway.
- Three participants suggested six or seven unrestricted lanes be built rather than managed lanes. One person thought that it sounded like a fast freeway for the rich and a slow freeway for the poor, while another did not like the idea of two lanes zipping along and five lanes sitting still.
- One participant had an initial positive reaction, citing the benefits of carpool lanes and other incentives to reduce traffic. This participant felt that these were important aspects of the project and that the freeway should not simply be widened. The participant commented that the express lanes should be free for carpool or alternative fuel vehicles.
- Those participants who use the freeway for longer commutes on a regular basis felt more positive about the proposal. They stated that this was an alternative to control the flow of traffic for those who must commute. One participant commented that improved travel times would be worth paying for, as it gives people the one thing they can't buy; 'time.'
- There was some disagreement in this group regarding reversible lanes. One person felt that traffic was usually congested in both directions making reversible lanes useless, while another thought that reversible lanes were a good idea for emergency vehicles.

Who Would Benefit From These Lanes?

Participants were asked who they felt would benefit the most from these lanes. Some comments were as follows:



- People who are willing to pay
- Developers of this project
- Working man who would have more reliable estimated trip time
- The person who travels the farthest
- Government making money from this and taxes
- Long commuters
- Concrete manufacturers
- Carpools, buses and people who travel far
- People stuck on freeway without alternative routes
- No one
- Those with a lot of money

Types Of Barriers

Participants were asked to describe the type of barriers between regular lanes and express lanes they would prefer. Interestingly, the groups were very different in their responses between groups, but mostly in consensus within each group.

Focus Group 1

- The first group preferred painted lines as barriers between the managed lanes and regular traffic lanes. Some suggested colored lights as well.
- A primary concern about hard barriers was that if an accident occurred, drivers would be stuck in the express lane for a long period of time. Their objection to pylons as a soft barrier appeared to be more about esthetics than functionality.
- Several people in this group mentioned flexible or reversible lanes as well.

Focus Group 2

- Participants in the second group preferred a soft barrier of pylons and gave several reasons for this choice:
 - a barrier deters cheating, as well as cutting in and out of lanes,
 - pylons, as opposed to concrete, allow emergency vehicles to drive over the barrier and into the lanes,
 - painted lines are unsafe because people (the participant included herself) cut across the lines.
- Two people mentioned concrete barriers – one to say that they are ugly, and the other to suggest that they are the most effective deterrent to cheating.

Access And Egress

Across both focus groups, participants felt that entrances should be three to five miles apart. Comments about access/egress points are listed below.

- Participants explained that exits less than three miles apart would create too much traffic congestion due to merging vehicles.
- Participants also expressed a concern that exits too far apart would create more traffic on surface streets, and would not be fair or convenient to some people.
- One participant expressed concerns about the number of new exits and entrances due to the costs of building them.



- Another person felt that entrances and exits should be widened.
- One participant pointed out that the need for more exits and entrances if there is only one express lane, because it is only possible for traffic to pass a slower vehicle or an accident when there are two express lanes.

Entire Project vs. Hot Spots

Those in the second focus group were asked if there were certain areas of the freeway that were most in need of additional lanes, or if the entire project should be built at one time.

- Three participants in this group felt that the whole project should be built at once or bottlenecks would be created.
- Another three people felt that additions should be built first in hot spots.
- One participant made the following hotspot suggestions:
 - Poinsettia to Villa de la Valle
 - I-5/I805 split
 - Del Mar dip

Tolls

Both groups were asked about what types of tolls they would prefer.

- Regular commuters seem to prefer a monthly pass.
- One participant suggested a flat fee to encourage regular commuters to buy a pass and use it.
- Most participants preferred the option to pay as you go, so that more people are able to use the lanes depending on traffic conditions, length of trip, and their own schedules.
 - one participant explained that he would use it on his way home from work, but not on his way to work.
 - another participant said that he might be willing to pay if he had an important meeting to get to
 - a third said he would only pay in special circumstances.
- Some participants also explained that they want to know how much the fee will be at any given time and were not very receptive to variable pricing based on the current congestion level.
 - one person said that the higher the price was, the more congested he knew the express lane would be.
 - others suggested that the fee should vary depending on how many exits the driver is going.
- One person explained that all options should be available so that more people will use it depending upon their circumstances.

The discussion of fees in the first focus group led to a conversation about carpools and fee reductions for certain users.

- One person, a regular carpooler, thought that the carpool lane should be restricted to those with three or more people per vehicle.
- Others disagreed, saying it was already difficult to coordinate with only one other person and that most people do not carpool as it is.



- Another suggested that the criteria for counting individuals in a carpool vehicle should be that only those over the age of 16 should be counted as this would be more likely to reduce vehicle trips.
- Some also felt that those with lower incomes and the disabled should be provided with discount rates or free fares for the managed lanes.

Willingness To Pay

Participants were asked for a show of hands for their willingness to pay a fare to use the managed lane at different price levels.

Focus Group 1:

- \$2/trip: 5 were willing to pay
- \$5/trip: 3 were willing to pay
- \$7/trip: 2 were willing to pay

Focus Group 2:

- \$2/trip: 3 were willing to pay
- \$3.50/trip: 3 were willing to pay
- \$5-\$7/trip: 1 was willing to pay

Some participants were not willing to pay any fee. Following are some comments:

- I would prefer to suffer
- It might cause me to consider the train
- I would consider buying a hybrid car

How Should Revenues Be Used?

When asked how revenues from the managed lanes should be used, participants, especially in the second focus group, seemed doubtful that revenues would be earned. The suggestions that were provided follow below.

- Some suggested more roads and alternative transportation. The suggestions for alternative transportation included:
 - mass transit (such as the Coaster) improvements and expansion, and
 - promoting alternative fuel vehicles.
- A few participants also suggested that the funds should stay within transportation and that there should be transparency for how the money is used.

Facility Without General Purpose Lane

Participants were asked for their reactions to the proposed expansion without an additional general public lane. The reaction was negative for the most part in the first group, and more balanced in the second.

- Most in the first focus group said that they would prefer a plan with one additional regular lane and one managed lane.
- One participant believed that the shoulders should be eliminated.



- In the second group two participants felt that the addition of two managed lanes without an additional general public lane would be attractive because of improved potential carpooling and alternative fuel vehicles.
- One participant said that a plan without the general public lane would only make traffic worse.

Changes Due To Proposed Facility

Participants were asked if the proposed facility would cause them to make any travel behavior changes.

- One participant commented that everyone who is currently avoiding traffic will change their schedule which will cause more congestion.
- Another said that she would go to Orange County whenever she wanted.
- Two other participants thought that people would not make changes to their travel behavior, as people are on a fixed schedule.

When asked if the proposed facility would reduce congestion, three people from each group agreed. Four people from the first focus group and one person from the second felt that the proposed facility could reduce travel time.

Those in the second group were asked if the facility would improve safety.

- Two participants felt that it would reduce the number of people swerving between lanes to find the lane that is moving the fastest.
- One person felt that it would not improve safety because cars would be traveling at higher speeds.

When asked if this facility would improve reliability or predictability of travel times, four people in the second focus group agreed with one participant commenting that if you need to get somewhere, you can pay to travel faster.

What Would You Call These Managed Lanes?

Participants were asked what they would call these pay lanes. Some responses included:

- Toll lanes
- Toll road
- FasTrak™
- Express way
- Reversible lanes
- Carpool lane
- Express lanes
- Can pay to drive if not carpool

How Would You Describe The Project?

Participants were asked how they would describe the project they had just discussed. Some responses included:

- Extension of I-5
- Two lanes you have to pay for
- Widen I-5



- Temporary solution to much larger problem that will make people mad
- Will have the same problems
- Changes/improvements to highway
- HOV lanes
- Exploring options for alleviating traffic
- Hybrid toll way
- Pay lanes
- Paid lanes
- Way to get rid of congestion on I-5 modeled after SR 91's success
- Idea of adding more lanes to create toll road

2.2 SECOND ROUND (FOCUS GROUPS #3 AND #4)

2.2.1. Key Findings

- Initial reactions to the project were mixed in both groups. Some felt that the addition of managed lanes to the I-5 was a positive proposal, while others felt the project was not fair or the best use of space or funds.
- There was no clear preference voiced by either group for direct access ramps or slip access and egress points. A wide range of perspectives were provided, but it appears that in general, travelers are not sufficiently familiar with the salient points of the two alternatives to generate a strong preference for either one. Some think that direct access ramps are safer and easier because they don't require crossing lanes. Others think that slip access ramps are safer and easier because they could be more frequent, and there is less of an issue about getting up to speed to enter the managed lanes. Participants generally felt that direct access ramps did not justify traveling further or paying a higher toll. The results from this discussion favor providing direct access ramps at the heaviest volume intersections and slip access in-between at lower volume access/egress points.
- For shorter distance travelers there was no clear preference for fixed or variable tolls. However, a majority of the longer distance travelers in the second group preferred variable tolling, and appeared to be more in touch with the concept of using tolls to maintain free-flow conditions in the managed lanes.
- Both groups agreed that the toll price and method of calculation must be clear enough for travelers to easily understand it for people to feel comfortable using the lanes. Participants also recommended posting the time savings that would be achieved if they used the managed lanes.
- The groups generally agreed that free or drastically reduced tolls are necessary to effectively motivate the formation of carpools and vanpools. Focus group participants generally are against raising the number of carpool occupants from two to three, saying that establishing a carpool is already difficult.
- Participants of both groups were asked to explain the benefits and give a summary of the proposed I-5 project. Most explained that the project consisted of toll lanes for those willing and able to pay.



- Participants in both focus groups mentioned concerns about fairness and affordability of the toll lanes to all freeway users. The project is more likely to be positively received if it is presented as HOV lanes that will be available to single occupancy vehicles that are willing to pay, so that the new lanes will be used to capacity while maintaining free-flow conditions.
- The way the toll is communicated could also be presented as being reduced when lanes are not at full capacity, rather than increased as needed to maintain free-flow conditions. This accentuates the positive stating the toll level more as a reward than a punishment.
- The participants that are long distance travelers appear to better understand and support the concept of congestion-based variable tolling. They are likely to both support and be heavier users of the system. The short distance travelers (which appear to be at least half of all I-5 users) are not as likely to see a clear benefit for the new facility. Clear communications that show how the facility is designed to encourage car/vanpooling (and even Coaster and express bus service), and to pull as much traffic as possible off of the general-purpose lanes will generate a more positive perspective among this large constituency.

2.2.2. Background

Random households in zip codes surrounding Interstate 5 (I-5) between Oceanside and the I-5/I-805 split were contacted by telephone during the months of April and May 2005 and asked to participate in the two I-5 Focus Groups, held May 5 in San Diego. Potential participants were screened for traveling on I-5 between Oceanside and the I-5/I-805 split, and separated into groups of those who travel less than 10 miles per day and those who travel 10 or more miles per day on the section of I-5 that will have the managed lane facility.

This second set of focus groups focused on expanding on the results of the telephone survey; exploring why the target audience appears to have a preference for fixed tolls over variable tolling, and does not appear to be especially concerned about maintaining a high level of performance in the managed lanes. Please see Appendix D for more information on these participants.

2.2.3. Focus Group Participants

In order to provide a representative sample of I-5 North Coast users, potential focus group participants were contacted using a random digit dialing (RDD) list to avoid the bias that would occur with a listed sample. The RDD list was developed using a list of zip codes that were likely to contain I-5 freeway users in the targeted area. Potential participants were contacted and screened to ensure that they were at least 18 years of age, live within the targeted list of zip codes, and travel on I-5 a minimum of three days per week. Focus group participants were recruited to balance age, gender and employment levels.

The focus group discussion guide was developed using previous research including prior focus groups with I-5 users, executive interviews conducted with a variety of community leaders, telephone surveys of I-5 drivers, and field surveys with alternative mode commuters.



2.2.4. Responses to Topics Presented

Reactions to Potential I-5 Improvements

A detailed explanation of the proposed project was given to the participants by the moderator, and discussion ensued about initial reactions to the project.

Focus Group 3

The first group of participants, those who travel less than 10 miles each way on their regular trip on the I-5 corridor between Oceanside and the I-5/I-805 split, had a range of initial reactions to the proposed project. One person believed that the toll lanes would be best used by those who wish to travel long distances through the corridor. One participant voiced concerns about costs, while another was more interested in restricting access of large trucks.

Focus Group 4

Initial reactions to the proposed project of the second group were more intense. These participants, who use the I-5 corridor for 10 miles or longer on their regular trip, all have had prior experience with toll lanes.

One participant mentioned that it did not seem feasible to fit seven lanes on each side of the freeway through the corridor. Two people voiced concerns that tolls might not be fair to those who cannot afford to pay for them, and that the toll idea would be 'elitist.' Another participant countered that if someone could afford to pay, then why not have toll lanes? One person said he thought the toll lanes were a good idea because they would bring money to the city, and he felt that tourists from Los Angeles would use them. He also stated that he would be likely to use them.

Two participants indicated a preference for general purpose lanes over managed lanes.

Access/Egress

Focus group members were then asked to give their input about access and egress points to the managed lanes. Slip access and direct access ramps were also explained and discussed.

Focus Group 3

The group was divided about the number or frequency of access points to the managed lanes. Some participants felt that more frequent access points would enable short trips to utilize the lanes and make it easier to access the lanes. Others said that less frequent access would be safer due to less traffic weaving across the freeway to get into the lanes.

In the first group of participants, about half preferred direct access ramps and half preferred slip access. Some said frequent slip access would allow easier use of lanes, while others wanted direct access ramps because getting into the lanes would be faster and safer.

When asked if they would pay more to use the direct access lanes, the majority said they would not.



Focus Group 4

The second group of participants was also divided regarding the frequency of access points and preference for direct access ramps or slip access. One participant explained that fewer access points would be a good method of keeping the lanes free flowing, and another thought that if the managed lanes were meant for longer trips, then there should be fewer access points. Several people said that if they could not get on or off where they wanted to, then they would not use the lanes; therefore, more frequent access points would be needed. One participant suggested that access points might be varied by time of day.

The majority of people in the second focus group said that they would prefer direct access ramps to slip access for ease of use and safety reasons. One participant explained that if he could use the direct access lane and not need to weave across traffic, he would know why he was paying to use the lanes. Two people expressed concerns about the acceleration of cars entering the ramp slowing down the traffic in the lanes.

When asked if they would use the direct access ramp if they had to drive about two miles further to reach it, the majority said they would use the closer, slip access. Participants were also asked if they would pay more to use the direct access lanes, only a few said they would pay more depending on congestion and time of day.

Safety

Respondents were asked about how managed lane access and egress would be safest.

Focus Group 3

A participant in the first focus group felt that fewer managed lane access points would make the freeway safer, as it would reduce weaving in and out of traffic. In contrast, another participant explained the difficulty of urgently getting over to infrequent entrances, and believed that there should be more access points to minimize this problem. Another person said that clear signage to let newcomers where the access points are would make the freeway safer, as they would be able to get to the lanes in time, as well as look out for others merging in and out of the lanes. One participant also felt that the use of direct access ramps would make the managed and general purpose lanes safer.

Focus Group 4

Those in the second focus group felt that fewer access points would make the managed lanes safer as well as the general purpose lanes, as it would reduce weaving in and out of lanes.

Both focus groups mentioned the use of barriers other than painted lines to keep people from “cheating” on the system, and from causing a hazard by weaving in and out of lanes over a painted barrier.

Tolling

The focus group moderator explained the two types of tolling to participants, fixed and variable, and then gave details about variations on variable tolling. Group members were then asked for their preferences and opinions.



Focus Group 3

The group was relatively evenly divided between fixed and variable tolls. Of the eight participants in the first focus group, four prefer fixed tolling, while one prefers dynamic variable tolling based on congestion, and one prefers variable tolling based on time of day. Two participants said that because of the tolls, they would never use the managed lanes, and therefore did not prefer fixed or variable tolling.

Comments made about fixed tolls:

- Consistency in price, even if free-flow conditions are not guaranteed
- Certainty in price, no surprises when the bill arrives
- Traffic is too dynamic to be able to price variable tolls accurately
- Always know how much it is going to cost
- Prefer fixed tolls because I know how much it is going to cost if I leave home late. I have incentive to leave on time to avoid traffic and therefore paying the toll.

Participants also made the following comments about variable tolls, and seemed to prefer tolls that vary by congestion rather than by time of day:

- Tolls variable by congestion scientifically solves traffic problems
- Reflects supply and demand when tolls vary with congestion
- Variable tolls cause uncertainty and customers have difficulty monitoring billing
- Prefer variable but don't believe traffic will always be free flow due to possible accidents in managed lanes
- Signs should be on entrance ramp to show what tolls would be in advance
- Signs with tolls should show the price and time savings if managed lanes selected

It is interesting to note that although the variable tolling was clearly explained to be based on maintaining free-flow conditions in the managed lanes, most participants appeared to interpret this as increasing the tolls as congestion in the general-purpose lanes increase, rather than based on congestion in the managed lanes.

Focus Group 4

The majority of participants in the second focus group preferred variable tolling over fixed. Of the nine participants in the second focus group, one prefers fixed tolling, while six prefer dynamic variable tolling based on congestion, and two prefer variable tolling based on time of day. The following are some of the comments made regarding fixed tolls:

- Fixed pricing won't work, no one will use toll lanes if there is no traffic
- Prefer fixed, but lanes should be closed or free to all during off-peak hours
- Fixed does not utilize lanes properly
- Prefer fixed tolls because they are easier for users to understand than tolls that change all the time

Tolling that varies by congestion is also the preferred choice for the second focus group. Below are some of the comments members of this group made regarding variable tolls:

- Tolling based on congestion is fair



- Variable pricing by congestion is better because no one will use managed lanes if traffic is lighter unless the lanes are lower priced, and managed lanes should be generating revenue at all times
- Variable tolls based on congestion is preferred because motorists can use the price as a barometer to tell whether traffic is bad or not
- Prefer variable pricing by congestion because I use the traffic during rush hour
- Prefer variable pricing by time of day because dynamic pricing is unpredictable
- Want to know how much I am paying so variable pricing by time of day
- Prefer variable pricing by congestion because accidents can happen any time of day and time of day pricing is not equipped to respond to them

Participants in the second focus group were also asked about the pricing of the toll in order to keep the traffic lanes free flowing. The group generally agreed that the price would need to be more than \$3.50 and less than \$10.00 for the whole corridor, and would be optimal in the \$5.00-\$6.00 range. One participant mentioned that for an every day commuter, \$10 a day was simply too much, especially one-way. Participants also agreed that the toll needed to be more than the Coaster price of about \$4.00, and that it might encourage Coaster usage.

One interesting idea that surfaced in both groups was the notion that if people do not understand the tolling system, and are afraid their bill will be higher than expected, they will not use the lanes, much like cell-phone billing. Therefore, whatever pricing is in place, it must be easy to understand and clearly marked in advance of the access points.

Another idea that was brought up in both groups was the use of dynamic signs that would display the pricing, the travel time difference between the managed lanes and regular lanes, which would enable approaching motorists to calculate a benefit-cost for the trip (i.e., the user knows what he/she is getting for their investment). Participants in the focus group felt this added feature would help motivate drivers to use the managed lanes.

Carpooling

The groups then discussed issues surrounding carpools and the managed lanes, such as whether free or reduced tolls would encourage carpooling and whether the number of people needed in a vehicle to create a carpool should be increased from two to three or more.

Focus Group 3

Several members of the first focus group had the position that carpools are often impractical no matter what the encouragement. However, the group agreed that to incentivize carpooling, the toll should be free or dramatically reduced (by at least 75 percent). One person in this group mentioned that she would more aggressively look for people to carpool with if she knew that she could then use this managed lane to avoid congestion.

As this group felt carpools were often impractical, they did not like the idea of increasing the number of riders in a carpool from two to three or more.



Focus Group 4

Participants in the second focus group also believed that reduced tolls would not encourage carpooling but conversely felt that carpools should not need to pay tolls. This group also pointed out that for a carpool, the tolls per person would already be reduced from the regular rate just by riding in the same car and splitting the regular toll.

Another participant in the second group felt that increasing the number of people needed to make up a carpool to three or more would encourage people to look for more members for a carpool group. However, a different participant responded that raising the carpool formation requirement would make using the managed lanes as a carpool more difficult.

Benefits and Project Summary

As a summary of the discussion, participants from both groups were asked to explain how they would describe benefits of the proposed project and to provide a summary of the proposed I-5 project as they understood it.

Focus Group 3

Following are many of the comments that participants in the first group gave as a summary and to describe the benefits of the proposed project:

- Mission for SANDAG is to provide services for everyone, people need to know how this project will impact the general traffic flow
- Focus on the reduced rate for carpools
- If you want a faster commute, you can pay a toll
- If the managed lane operator is a private company then they are just looking to make money and not thinking about what is best for commuters
- Approach to managed lanes operation is based on simple supply and demand
- Private company could manage it better, government is less efficient

Focus Group 4

Participants in the second focus group made the following comments to describe the benefits of the proposed project:

- A new system where rich travel faster
- Adding toll lanes to free up traffic, designed to ease congestion; goal is to make lane free flowing
- I am a little confused about variable tolls; how they are calculated and how I'll be able to predict what the fees would be
- Providing extra lanes so when there is traffic you have the option to pay to use them for a faster trip
- The goal of managed lanes is to provide free flow travel and manage the lanes by tolling. Managed lanes provide options where travelers can make choices about using them
- Idealistic but not feasible to add additional lanes in the I-5 North Coast corridor
- Toll lanes that provide free flow traffic are successful (e.g. SR 73 in Orange County); believes a private company is more efficient



Fairness and Environmental Justice

Participants in both focus groups mentioned concerns about fairness and affordability of the toll lanes to all freeway users. The words “elite” and “for the rich” were mentioned at some point in both groups.

Focus Group 3

One or two participants in the first group said at some point in the discussion that the toll lanes might be unfair to people who cannot afford to pay. Others made comments about how the toll lanes were for the rich, but did not necessarily seem to be concerned about it. The people who could afford it were seen as both “Hummer drivers” and people whose time is important to them.

Other parts of the discussion returned to what participants felt about how the tolls should be used, and what money should pay for the roads. One participant in the first group said that money should not go to a private company. Another felt that if taxes pay for the construction, then it is a “social service” and the people should not have to pay a toll. A participant also mentioned that any profits should go toward San Diego transportation.

Focus Group 4

Participants in the second focus group also made comments about the fairness of tolls and about how the toll revenues should be used. One participant’s initial reaction to the plan was that only rich people could use the toll lanes, and that this might not be fair to others who cannot use them.

Most participants in the second focus group felt that a private company would be preferable to manage the toll lanes, as they would be more efficient and responsive.

The second focus group felt that excess toll revenues from the managed lanes should go to fund:

- Schools
- Mass transportation such as bus and train
- Movable zipper lane
- Expanded general purpose lanes

This group also was asked to comment on how the tolls could be made fairer for low and moderate income populations. Several participants mentioned some method of providing reduced tolls or assistance for lower income people, such as students and seniors. Other participants described a system where more frequent users would get a discount, something like a bulk discount or monthly pass in the range of \$200.

2.2.5. Recommendations

Following are some suggestions on how to present the managed lanes to help minimize the ‘elitist’ image.

- Present the managed lanes as HOV lanes rather than HOT lanes. HOVs go free or pay a significantly reduced fare to use the lanes, while others can pay more to ride if they choose as long as it doesn’t hinder free flow conditions on the managed lanes.



- Accentuate the positive. State the objective of the project as “maximizing traffic flow on the managed lanes while maintaining free flow conditions” rather than focusing only on free flow conditions.

- Consider the possibility of providing discounted toll prices for seniors, students, and lower incomer families that require assistance. It should be noted that this might prove difficult to implement since once a transponder has been issued, it could given by the transponder owner to anyone to use.

Findings from the focus groups lead to recommendations for further study and ways to present the benefits of the project from a positive perspective.



CHAPTER 3

I-5 INTERCEPT SURVEYS

As part of the SANDAG I-5 North Coast Managed Lanes Study that includes focus groups, stakeholder interviews, telephone surveys, and intercept surveys were performed by Strategic Consulting & Research.

3.1 KEY FINDINGS

To assess the opinions of non-single occupant vehicles (SOV) commuters, surveys were distributed on February 7, 2005 on an express bus, the Coaster, and in an Oceanside park and ride lot at the intersection of I-5 and SR 78. Approximately 400 surveys were distributed to yield a total of 353 completed surveys.

3.1.1. Purpose

This survey was conducted as part of an overall outreach effort to fully understand the awareness, knowledge, concerns and attitudes about the I-5 North Coast Managed Lanes among the various impacted stakeholders. The specific purpose of the intercept surveys was to capture input from alternative mode commuters that due to their low incidence in the general public, would not be captured in sufficient quantity in an RDD telephone survey in order to provide quantitative results. The results from the intercept surveys will be combined with the results from other research efforts to develop recommendations for successful execution of the project.

3.1.2. Methodology

In order to capture alternative mode commuters in sufficient numbers for quantitative reporting, intercept surveys were conducted onboard the Coaster, express bus service, and at a park and ride lot. A draft survey instrument was developed using the results of the previous focus groups and executive interviews conducted with community leaders. The draft survey instrument was submitted to SANDAG and the Technical Advisory Committee for review, and recommended changes were incorporated into the final survey instrument.

Surveying was conducted between 6:00 a.m. and 9:00 a.m. to capture alternative mode commuters utilizing park and ride lot # 44 at the intersection of I-5 and SR 78, onboard Coaster trains from Oceanside to Sand Diego departing Oceanside at 6:06 and 6:44 AM (and boarding between Oceanside and Solano Beach), and onboard express bus # 310 between the Oceanside transit center and UTC Mall. The one page survey was available in both English and Spanish.

3.1.3. Alternative Modes of Travel

- Coaster and express bus users utilize public transit 4.5 and 4.4 days per week respectively while car/vanpoolers say they do not use public transit on I-5 at all.



- Express bus riders say they also carpool on I-5 a mean of 0.4 days per week, compared to 0.2 days per week for Coaster riders.
- Park and ride lot respondents are most likely to also drive alone at 1.3 days per week while both Coaster and express bus riders drive alone less than half a day per week

3.1.4. Potential I-5 Improvements

- Eighty-two percent of these non-SOV corridor users think that I-5 needs to be expanded.
- Sixty percent of respondents support the proposed idea of one general purpose and two toll express lanes in each direction.
- High occupancy vehicles (HOV)/vanpoolers are the most supportive with 90 percent saying I-5 needs to be expanded and 76 percent supporting the proposed managed lane project.

3.1.5. Tolling

- Thirty four percent believe that a fee schedule set by time of day will encourage carpooling, while only 26 percent believe varying fees by traffic conditions will encourage carpooling.
- Thirty-nine percent of respondents felt that a fee schedule set by time of day will encourage transit usage, while 26 percent of respondents believe fees that vary with traffic conditions will encourage transit usage.

3.1.6. Proposed Project Opinions

- Alternative mode users agree that the toll express lane project will make the I-5 safer, that express lanes with reduced or free tolls for carpools will increase carpooling, and that toll lanes are a good way to help pay for freeway expansion.
- More than half of bus and train riders support spending more money on public transit services, while a majority of HOVs and vanpoolers disagree.
- In contrast, general I-5 users contacted via telephone survey do not feel that money should be invested in public transit instead of freeways, and disagree that managed lanes with free or reduced fares for HOVs would increase carpooling.



3.2 INTRODUCTION

Surveys were distributed on February 7, 2005 on an express bus, the Coaster, and at park and ride lot #44 in Oceanside at the intersection of SR 78 and the I-5. Surveying was conducted between the hours of 5:45 and 10:00 a.m.. Surveys were a single page in length and were available in English and Spanish at the preference of each respondent.

Although surveys were offered in both English and Spanish, only one complete Spanish-language survey was received.

Approximately 400 surveys were distributed to yield a total of 353 complete surveys.

Of the 353 complete surveys, 78 percent (276) were from the Coaster, five percent (17) were from the express bus, and 17 percent (60) from the park and ride lot.

Surveys were conducted on an intercept basis for these alternative mode commuters because their incidence in the general public would result in only a handful of respondents in the random digit dialing telephone survey. Completing 350 surveys with alternative mode commuters provides unique insights from these commuters, and also enables comparisons between SOV and alternative mode commuters for selected questions.

Only those Coaster riders that boarded the southbound train between Oceanside and the Solano Beach station were given surveys. The express bus service traveled between the Oceanside Transit Center and UTC Mall, and riders in both directions were surveyed. Park and ride users were given surveys if their carpool or vanpool was going to travel southbound on I-5, or to pool participants that were going northbound but commuted to the park and ride lot from a point further south via I-5.



3.3 PURPOSE

This survey was conducted as part of an overall outreach effort to fully understand the awareness, knowledge, concerns and attitudes about the I-5 North Coast Managed Lanes among the various impacted stakeholders. The specific purpose of the intercept surveys was to capture input from alternative mode commuters that due to their low incidence in the general public, would not be captured in sufficient quantity in an RDD telephone survey to provide quantitative results. The results from the intercept surveys will be combined with the results from other research efforts to develop recommendations for successful execution of the project.

3.4 METHODOLOGY

A draft survey instrument for the intercept surveys was developed using the results of previous focus groups and executive interviews conducted with community leaders. The draft survey instrument was submitted to the Technical Advisory Committee for review, and recommended changes were incorporated into the final survey instrument. The goal of the survey was to provide as much information as possible in the same format at the telephone survey so that results between the two groups could be compared.

In order to capture alternative mode commuters in sufficient numbers to provide quantitative results, a sampling plan was developed to reach respondents during their commute. Coaster riders were interviewed onboard the Coaster, express bus riders were interviewed onboard the express bus, and car/vanpoolers were interviewed at a park and ride lot.

The total established sample size for alternative mode commuters in the project plan was 75 respondents, the minimum amount necessary to provide rough quantitative measurement of alternative users' opinions, so that they could be compared to respondents to the telephone survey. However, given the amount of resources required to provide a representative sample across the three different modes (commuter rail, express bus and car/vanpooling), enough surveying resources were utilized to expand the total number of completed surveys to 353.

To capture Coaster riders, two surveyors distributed surveys on each of two trains departing Oceanside to San Diego at 6:06 and 6:44 a.m. Self-administered surveys were available in both English and Spanish and were distributed to riders who boarded between the Oceanside and Solano Beach stations. A total of 276 completed surveys were collected onboard the Coaster.

To capture car and vanpoolers, interviewing was conducted at park and ride lot #44 near the intersection of I-5 and SR 78. Surveys were distributed in both English and Spanish to all qualified car/vanpoolers. Qualified car/vanpoolers included all pools heading southbound on I-5, and those individuals who were going north on I-5, but arrived at the park and ride lot by driving north on I-5. A limited number of additional surveys were



also provided to pools that were picking up additional riders at different locations that then continued southbound on I-5.

Most of the surveys were completed on-site at the park and ride lot and returned in person to the interviewers. However, there were some potential respondents that did not have time to complete the survey before departing. These potential respondents were given postage-free business-reply envelopes so that they could complete the survey later in the day and return it at no cost via the mail. Approximately 20 of the 60 total park and ride lot surveys were completed via business reply mail.

The only express bus service currently using the North Coast portion of I-5 is bus #310 that travels between the Oceanside Transit Center and UTC Mall. This bus was surveyed in both directions and surveys were completed with 17 of the 21 riders.

Upon completion of data collection, cross-tabulations of results were produced using commute mode and demographic variables as banner points. The cross-tabulations were used in data analysis, and a draft report was produced. The draft report was submitted for SANDAG for comments and recommendations. These comments and recommendations were incorporated into the draft to produce the final report.



3.5 ALTERNATIVE MODES OF TRAVEL

Figure 1 shows the mean number of days per week participants reported using various alternative modes of travel. This is displayed in total and by survey location.

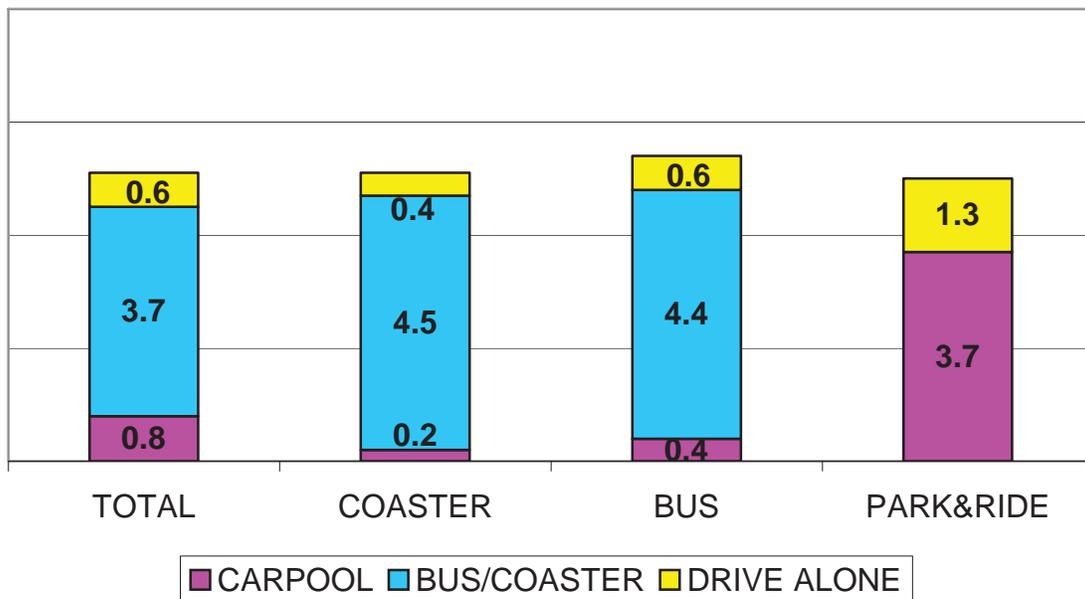
As shown, bus and Coaster users are likely to use these modes a mean of 4.4 and 4.5 days per week respectively, while those surveyed at the park and ride lot do not use the bus or Coaster at all.

Carpooling was selected as a mode choice across survey locations, with Park and Ride users carpooling a mean of 3.7 days per week. Bus users followed, carpooling 0.4 days per week and Coaster users carpool 0.2 days per week.

Park and Ride users also drive alone a mean of 1.3 days per week, with bus and Coaster riders following at 0.6 and 0.4 days per week respectively.

**FIGURE 3-1
ALTERNATIVE MODES USAGE BY SURVEY LOCATION**

TRANSIT MODE: MEAN DAYS PER WEEK BY SURVEY LOCATION



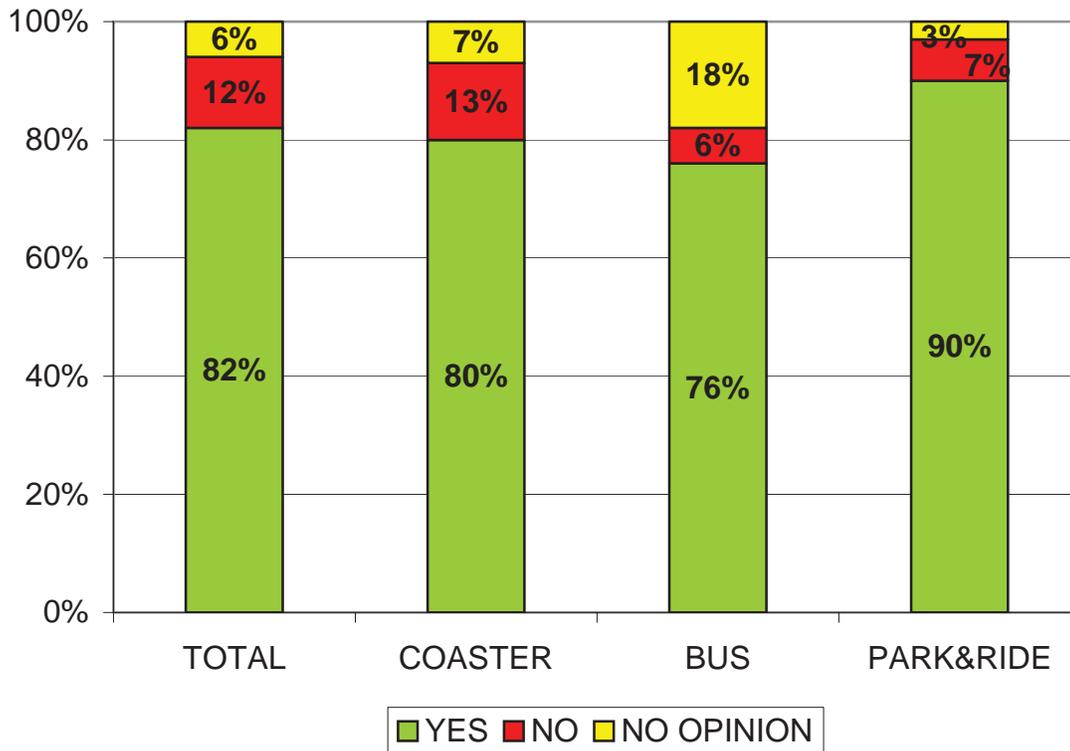


Respondents were asked if they felt that I-5 should be expanded and whether they support the proposed one general purpose and two toll lanes in each direction.

3.6 POTENTIAL I-5 IMPROVEMENTS

The vast majority of alternative mode commuters think that I-5 needs to be expanded, at 82 percent overall. Park and ride participants are most strongly in favor of expansion, at 90 percent, while bus users are less enthusiastic at 76 percent.

FIGURE 3-2
I-5 EXPANSION
DO YOU THINK I-5 NEEDS TO BE EXPANDED?



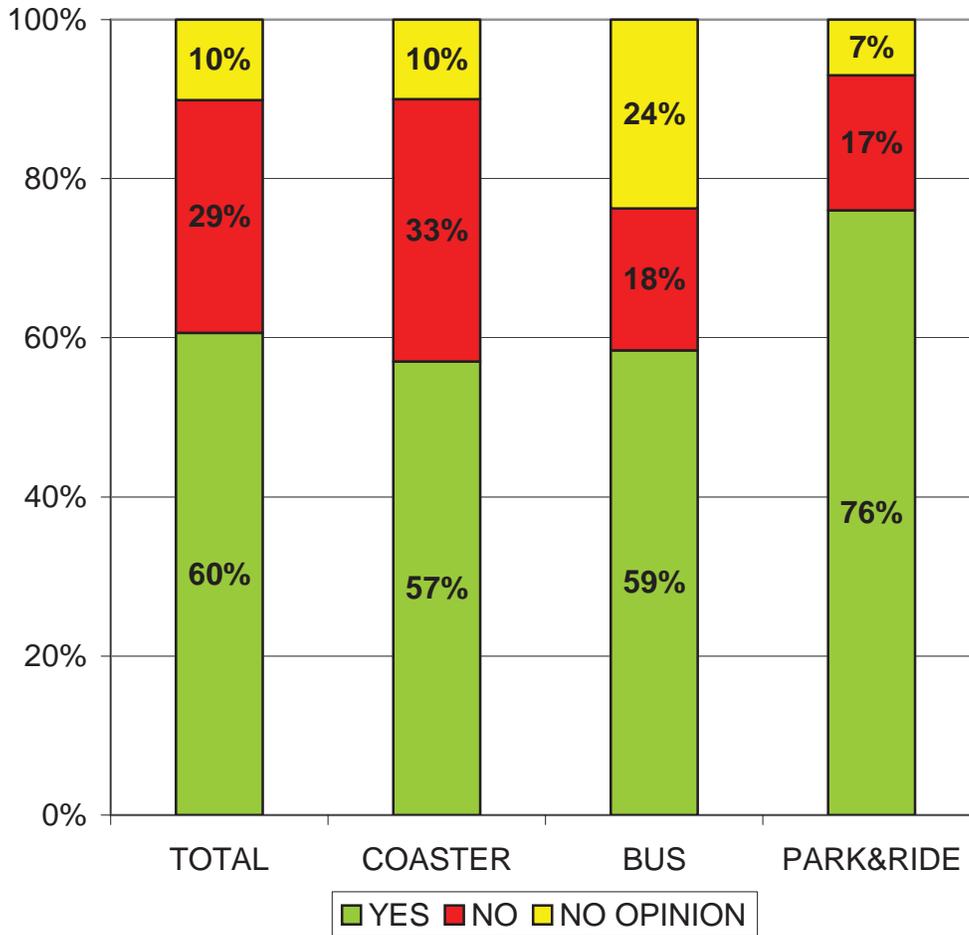
This finding is consistent with those from the telephone survey of commuters, which found that 82 percent support improvements to I-5.



Overall, 60 percent of alternative mode commuters support the proposed idea of one general purpose and two toll express lanes. This level of support is consistent with both Coaster and bus passengers. The park and ride users are more strongly in support of this proposed expansion of I-5.

Of all groups, Coaster riders are most against the addition of one general purpose lane and two toll lanes in each direction, with 33 percent not in favor.

FIGURE 3-3
SUPPORT PROPOSED IMPROVEMENTS
DO YOU SUPPORT CONSTRUCTION OF ONE GENERAL PURPOSE AND TWO TOLL LANES IN EACH DIRECTION?



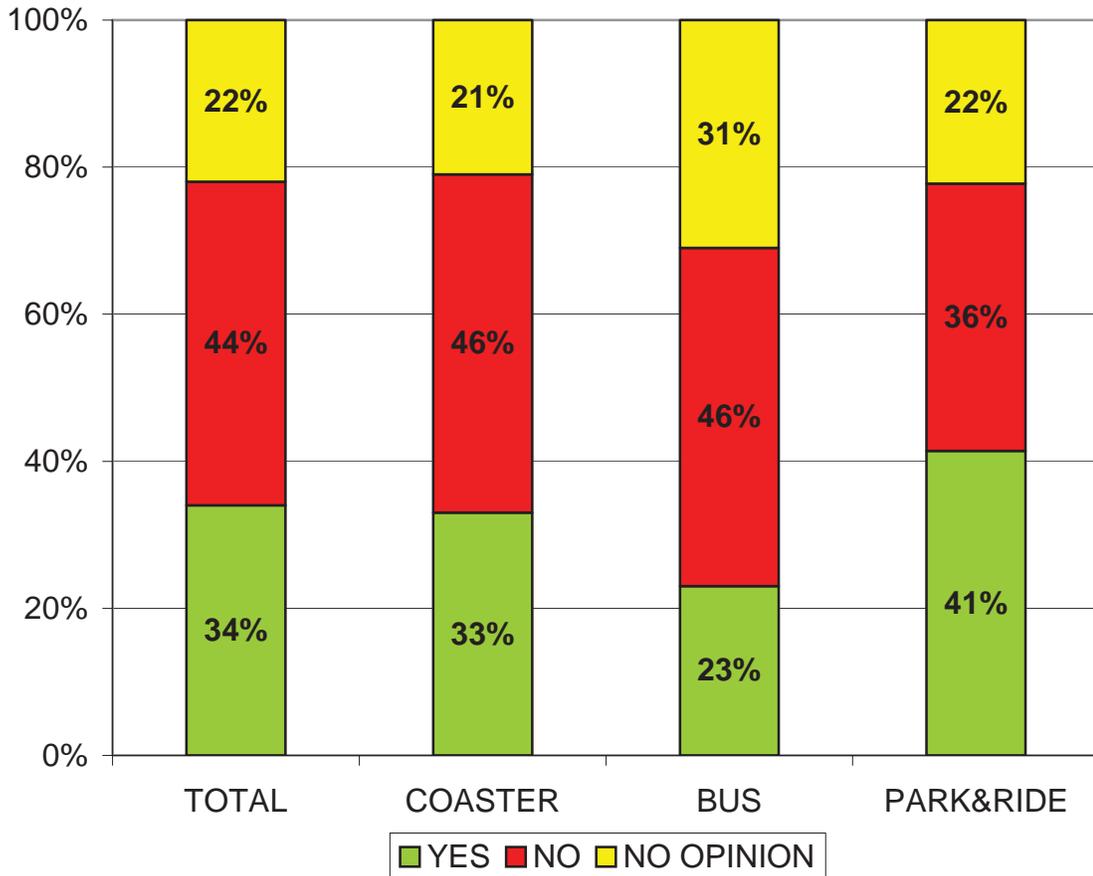
Support of the proposed package of two tolled express lanes and one general purpose lane in each direction received similar support from the general corridor user survey at 62 percent, as by the alternative mode commuters at 60 percent. As noted above, only the HOVs/vanpoolers varied significantly with 76 percent supporting the concept.

Survey participants were questioned regarding toll usage, and its effects on mode choice. Results are comparable with the telephone survey of commuters who prefer fixed tolls (40 percent) to variable tolls (30 percent).

3.7 TOLLING

Thirty-four percent believe that a fee schedule set by time of day will encourage carpooling. Those surveyed at the park and ride lots are most strongly in agreement among the three groups at 41 percent.

FIGURE 3-4
ENCOURAGE CARPOOLING: SET FEE SCHEDULE
WOULD SET FEE SCHEDULE BY TIME OF DAY
ENCOURAGE CARPOOLING?

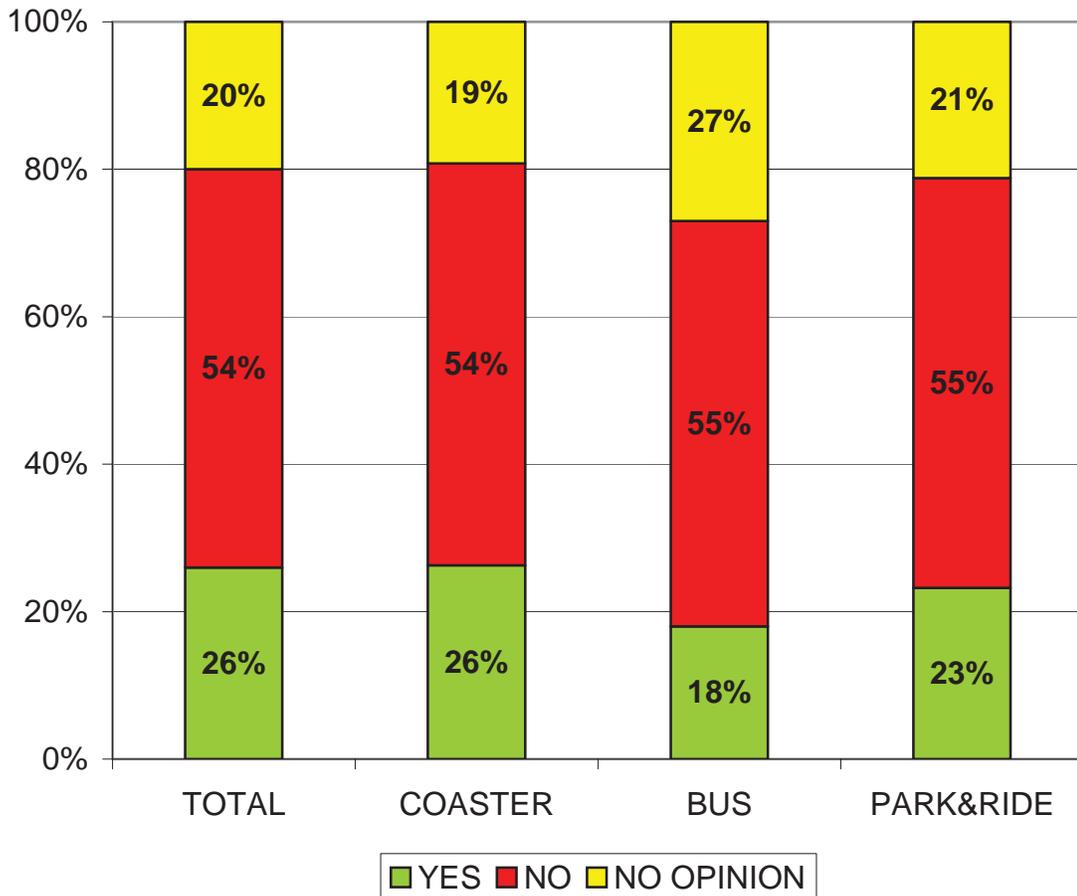




Respondents are less likely to believe that varying fees by traffic conditions will encourage carpooling, with 26 percent in agreement. Bus riders are least in agreement at only 18 percent.

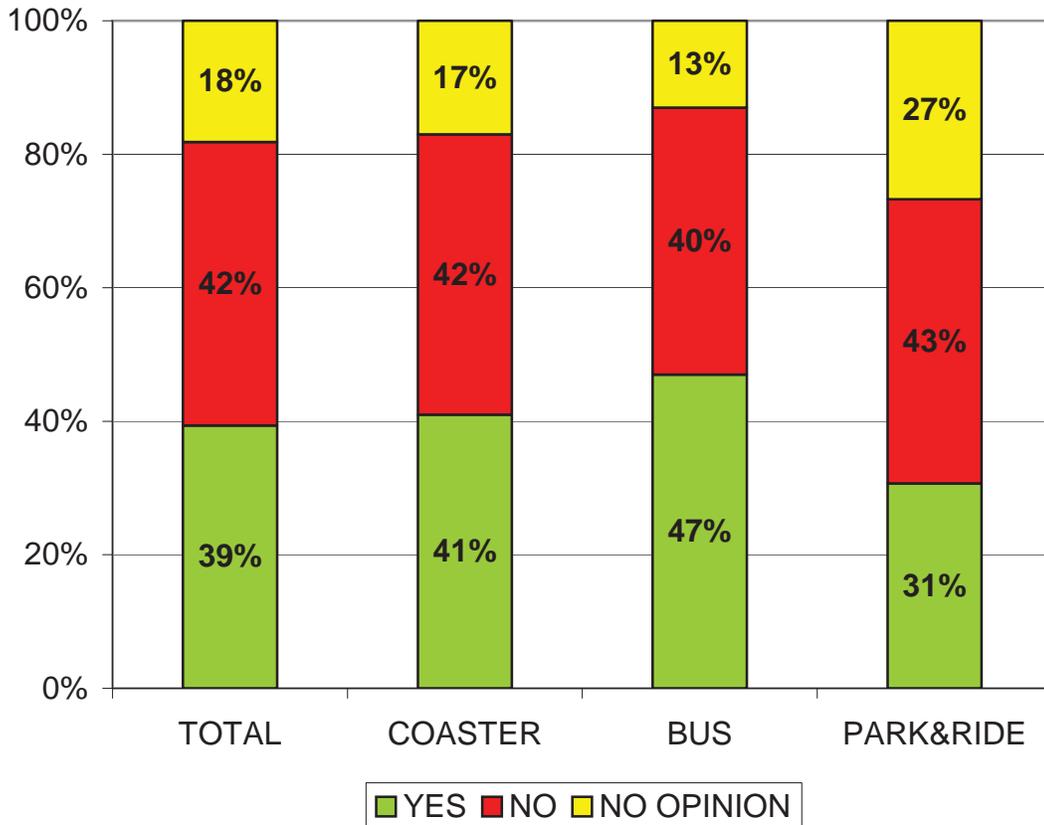
**FIGURE 3-5
ENCOURAGE CARPOOLING: VARIABLE FEE**

**WOULD VARIABLE FEE BY TRAFFIC CONDITIONS
ENCOURAGE CARPOOLING?**



Thirty-nine percent of respondents feel that a fee schedule set by time of day will encourage transit usage. Bus riders are most positive about this toll type with 47 percent believing that a fee schedule would encourage transit use.

FIGURE 3-6
ENCOURAGE TRANSIT USE: SET FEE SCHEDULE
WOULD SET FEE SCHEDULE BY TIME OF DAY
ENCOURAGE TRANSIT USAGE?

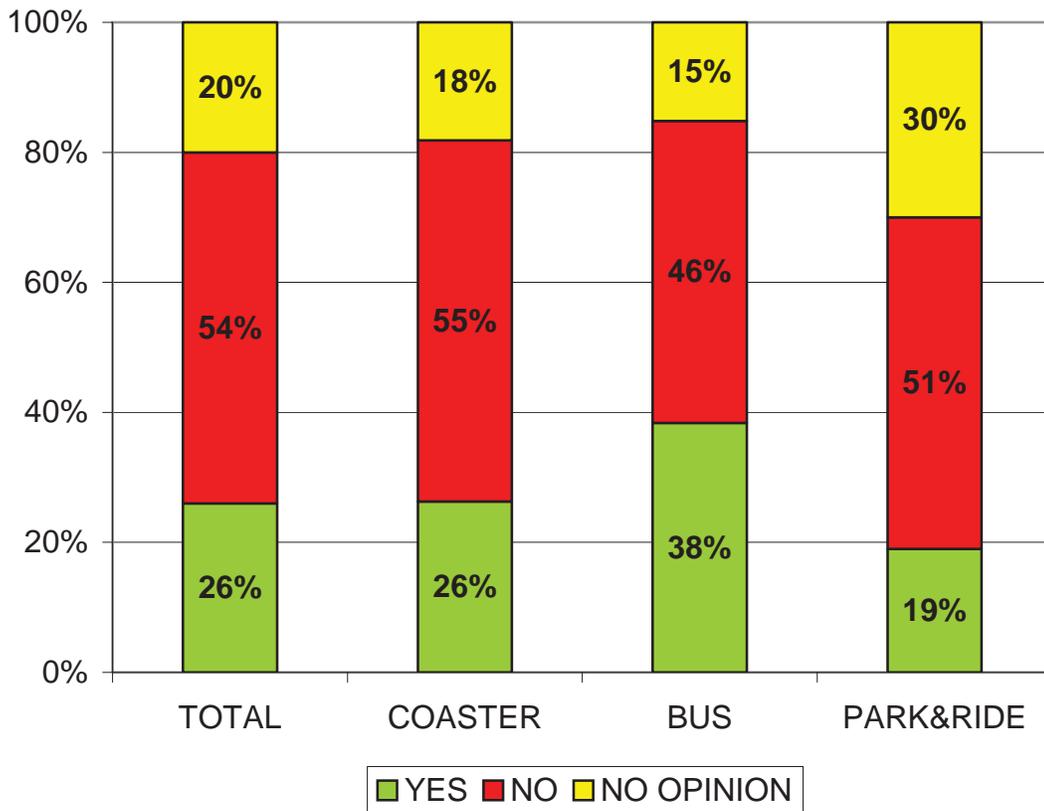




Twenty-six percent of respondents think that a fee that varies with traffic conditions would encourage transit usage. Again, bus users are most likely to feel that a variable fee would encourage transit use while park and ride users are least likely to agree that fees that vary with traffic congestion would increase usage of transit.

FIGURE 3-7
ENCOURAGE TRANSIT USE: VARIABLE FEE

WOULD VARIABLE FEE BY TRAFFIC CONDITIONS ENCOURAGE TRANSIT USAGE?

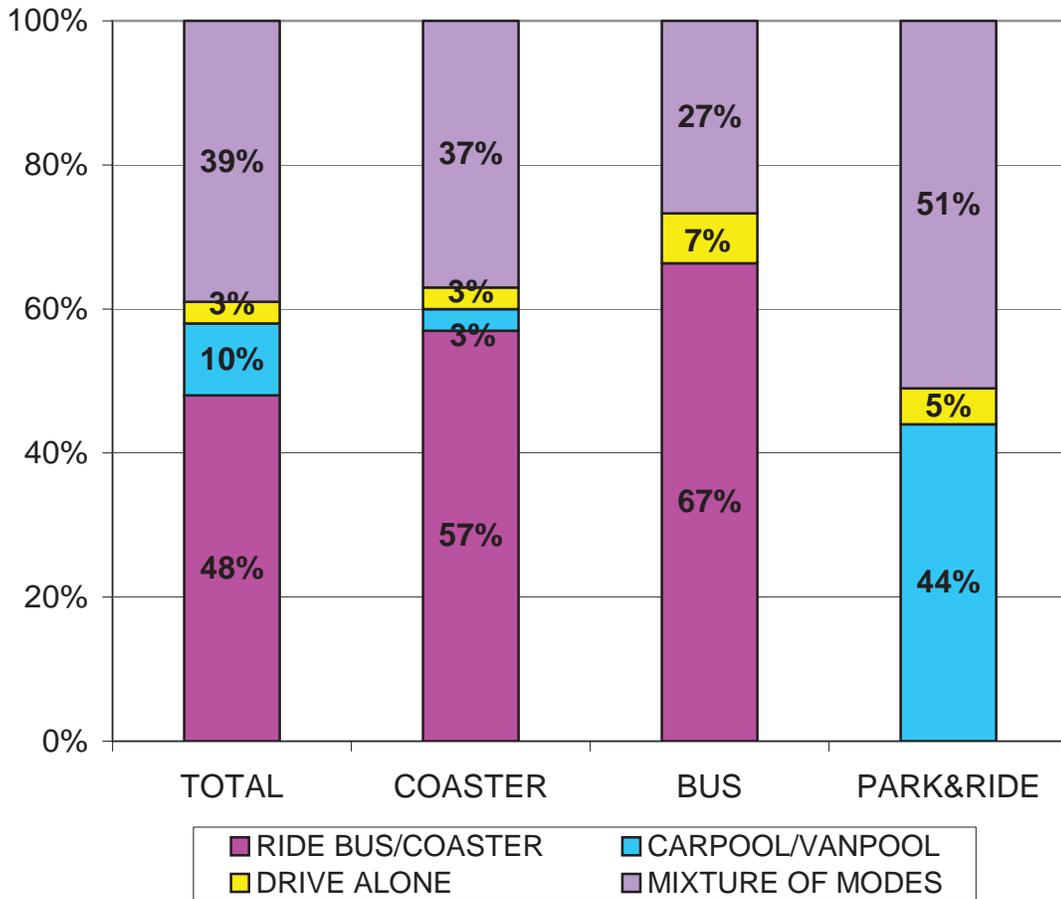


Respondents were asked what transit mode they would choose if express toll lanes were offered. Overall, only three percent indicate that they would drive alone exclusively.

Those surveyed on the express bus and Coaster say they would continue to use these modes for the bulk of users, at 67 and 57 percent respectively. Park and ride respondents would use a mix of modes (51 percent) and continue to carpool or vanpool at 44 percent.

**FIGURE 3-8
MODE CHOICE WITH TOLL LANES**

**IF TOLLED EXPRESS LANES WERE OFFERED,
WOULD YOU...**





Survey participants were asked whether they agreed or disagreed with statements that apply to potential I-5 improvements.

3.8 PROPOSED PROJECT OPINIONS

Respondents were asked several opinion questions about the proposed project, and were asked to respond on a four point scale from “Strongly Disagree = 1” to “Strongly Agree = 4”.

The following table details these scale questions and the percent of respondents in each category, along with the mean rating.

Overall, corridor users agree that the toll express lane project will make the I-5 safer, that managed lanes with reduced or free tolls for carpools will increase carpooling, and that toll lanes are a good way to help pay for freeway expansion.

However, some respondents do not think that the project will reduce air pollution, and think that the money should be invested in buses and trains instead. Coaster respondents do not feel that the expansion project would reduce air pollution and bus riders were the only group that feels that noise would increase in neighborhoods because of the project. Coaster and express bus riders agree that money should be invested in more public transit instead of freeways, while the majority of HOVs/vanpoolers disagree.

Respondents contacted via telephone survey differed from the alternative mode commuters in the intercept survey in their agreement with the opinion questions in the following instances:

- Contrary to the alternative mode commuters they do not feel that money should be invested in public transit instead of freeways.
- General commuter respondents disagree that toll lanes with free or reduced fares for carpools would increase carpooling.
- General commuters feel that the proposed expansion would not make I-5 safer.

The average response scores for the total alternative mode survey, the individual alternative modes, and the general telephone survey results are detailed in Table 1 on the following page.



**TABLE 3-1
PROPOSED PROJECT OPINIONS**

QUESTIONS:	RATING					OVERALL
	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	NO OPINION	
DIVIDER BETWEEN EXPRESS AND REGULAR LANES SHOULD BE MORE THAN PAINTED LINES	6%	23%	30%	30%	9%	AGREE
COASTER						AGREE
BUS						AGREE
PARK AND RIDE						AGREE
TELEPHONE SURVEY RESPONDENTS						AGREE
MONEY SHOULD BE INVESTED IN BUSES / TRAINS INSTEAD OF FREEWAYS	9%	25%	26%	32%	9%	AGREE
COASTER						AGREE
BUS						AGREE
PARK AND RIDE						DISAGREE
TELEPHONE SURVEY RESPONDENTS						DISAGREE
HAVING TOLL EXPRESS LANES WITH FREE OR REDUCED TOLLS WILL INCREASE CARPOOLING	8%	24%	38%	22%	7%	AGREE
COASTER						AGREE
BUS						AGREE
PARK AND RIDE						AGREE
TELEPHONE SURVEY RESPONDENTS						AGREE
HAVING TOLL EXPRESS LANES IS A GOOD WAY TO HELP PAY FOR THE FREEWAY EXPANSION	11%	23%	40%	19%	7%	AGREE
COASTER						AGREE
BUS						AGREE
PARK AND RIDE						AGREE
TELEPHONE SURVEY RESPONDENTS						AGREE
TOLL EXPRESS LANE PROJECT WILL MAKE THE I-5 SAFER	6%	28%	37%	12%	18%	AGREE
COASTER						AGREE
BUS						AGREE
PARK AND RIDE						AGREE
TELEPHONE SURVEY RESPONDENTS						AGREE
TOLL EXPRESS LANE PROJECT WILL REDUCE AIR POLLUTION	12%	36%	25%	11%	16%	DISAGREE
COASTER						DISAGREE
BUS						AGREE
PARK AND RIDE						AGREE
TELEPHONE SURVEY RESPONDENTS						DISAGREE
EXPRESS LANES WILL INCREASE THE NOISE LEVEL IN NEIGHBORHOODS	10%	37%	26%	8%	19%	DISAGREE
COASTER						DISAGREE
BUS						AGREE
PARK AND RIDE						DISAGREE
TELEPHONE SURVEY RESPONDENTS						DISAGREE



CHAPTER 4

I-5 TELEPHONE SURVEYS

As part of the SANDAG I-5 Expansion Research Project that includes focus groups and intercept surveys, telephone surveys were performed by Strategic Consulting & Research.

4.1 KEY FINDINGS

Random households in zip codes surrounding the I-5 freeway between Oceanside and the I-5/I-805 split were contacted by telephone during the months of January and February 2005 and asked to participate in the I-5 North Coast Telephone Survey. More than 1,300 households were contacted to yield 804 complete surveys.

4.1.1. I-5 Usage

- Seventy percent of respondents use I-5 at least five days per week, with a mean of 4.4 days per week.
- Seventy-six percent are traveling south on I-5 when leaving from home and travel a mean of 17.5 miles one-way on I-5. The portion of the trip on I-5 takes less than 30 minutes for 65 percent of respondents.

4.1.2. Potential I-5 Improvements

- Forty-six percent of respondents had heard something about potential improvements to I-5 freeway north of the I-5/I-805 split. Eighty-one percent recall the potential improvements as adding lanes to the freeway.
- Sixty-two percent support construction of one new general purpose lane and two express toll lanes.
- Sixty-one percent feel that the most important benefit of this potential project would be reduced congestion. Thirty percent mentioned reduced commute times.
- The most commonly stated concern (23%) with the proposed improvements was that the project would take too long to complete.

4.1.3. Tolling

- Respondents prefer raised tolls to closed entrances to control congestion and prefer fixed tolls to variable tolls.
- Fifty-two percent feel that variable tolling is not an equitable way to control congestion. However, 56 percent of respondents feel that fixed tolls are fair and equitable.



4.1.4. Proposed Project Opinions

- Corridor users feel that additional lanes should be built, and they indicate a preference for managed lanes. Respondents also agree that toll lanes can be used to help defray the costs of freeway expansion.
- Although I-5 users believe the toll lane expansion will reduce congestion, they are not optimistic about other potential benefits of toll lanes such as increased carpooling, improved traffic flow with raised tolls, safer driving, or reduced pollution.

4.1.5. Environmental Justice

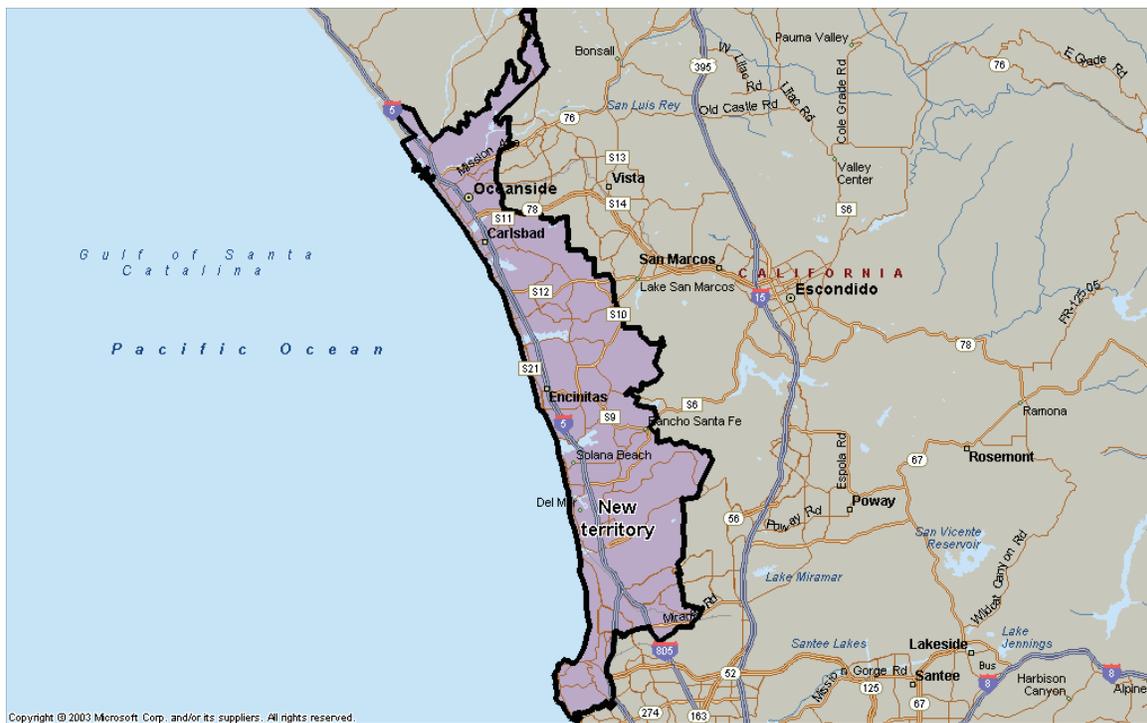
- While there are not significant differences between lower income or non-Caucasian I-5 users and the general user, some variation can be seen.
- Non-Caucasians are more likely to support the proposed project and more in support of a fixed versus variable toll than the average.
- Although low-income respondents are somewhat more likely than general users to support the express lane project, they are more supportive of using closures rather than raising tolls to control flow. They are also more likely to say only general purpose lanes should be built.

4.2 INTRODUCTION

4.2.1. Purpose

The telephone survey is one component of the I-5 North Coast Managed Lanes Value Pricing Study Community Outreach Program. The goal of the outreach program is to accurately gauge public reactions to, and support for a variety of value pricing and lane management options under consideration on I-5 north of San Diego. The importance of understanding early in the planning process what design, pricing and operations elements were favorably – and unfavorably – received by a variety of publics ultimately helped to shape the final recommendation of the study.

FIGURE 4-1 MAP OF TARGET CORRIDOR



Random households in zip codes surrounding the I-5 freeway between Oceanside and the I-5/I-805 split (see Figure 1) were contacted by telephone during the months of January and February 2005 and asked to participate in the survey.

Surveys were conducted between the hours of 5:00 and 9:00 p.m. weekdays and between the hours of 9:00 a.m. to 9:00 p.m. Saturday and Sunday to reach people 18 years of age and older who use at least some portion of the I-5 between Oceanside and the I-5/I-805 split at least three days per week. More than 1,300 households were contacted to yield 804 complete surveys. The telephone survey provides quantitative and representative results for the target audience with statistical accuracy of ± 2.1 -3.5% at a 95% confidence level.



Survey participants were asked questions about their commute patterns and usage of the I-5 freeway.

4.3 I-5 USAGE CHARACTERISTICS

Seventy percent of respondents use the I-5 at least five days per week. To qualify for the survey, respondents had to use the I-5 at least 3 days per week.

FIGURE 4-2 I-5 USAGE DAYS PER WEEK



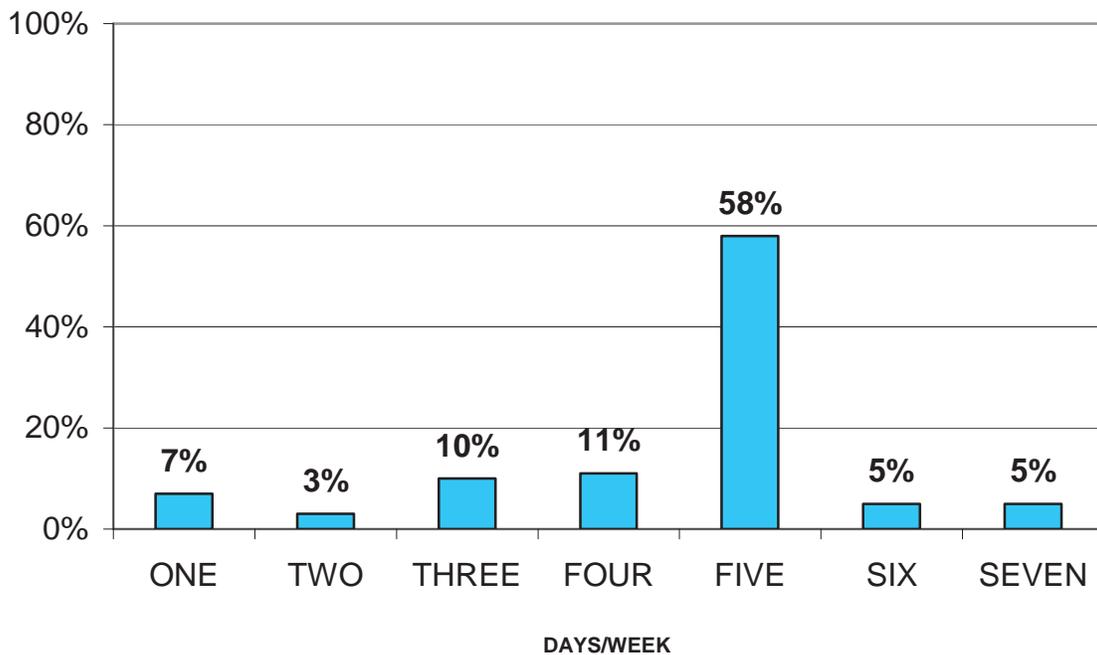


Sixty-eight percent of those who commute to work or school use the I-5 for this commute at least five days per week. Respondents use the I-5 a mean 4.4 days per week.

Those in the lowest income bracket of less than \$34,000 annual household income and Hispanics tend to use the I-5 for work or school commute most often, with means of 4.8 and 4.7 days per week respectively.

FIGURE 4-3 I-5 COMMUTE DAYS PER WEEK

**HOW MANY DAYS PER WEEK DO YOU USE THE I-5 TO
COMMUTE TO WORK OR SCHOOL?**



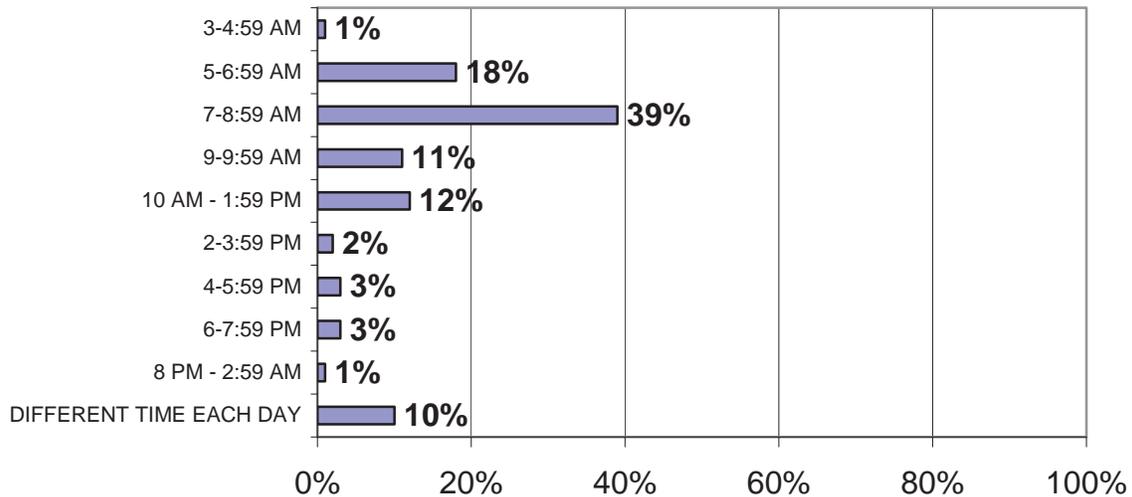
When leaving from home to start a trip on I-5, the top two most commonly used entrances are SR 78 at 12 percent and Del Mar Heights Road at ten percent. Most respondents (76%) are traveling south on I-5 when leaving from home.



Fifty-eight percent leave their home before 9:00 a.m. to start their trip on I-5.

FIGURE 4-4 TIME OF DAY TO START TRIP

WHAT TIME OF DAY DO YOU GENERALLY START A TRIP FROM HOME THAT USES THE I-5?



Sixty-two percent travel less than 20 miles one-way on I-5 with a mean distance of 17.5 miles traveled. Hispanics and African Americans tend to travel slightly farther on the I-5 than other ethnicities, with a mean of 21.8 miles for Hispanics and 23.7 miles for African Americans. Those in the \$75,000 to \$99,000 household income bracket also tend to travel farther, with a mean of 21.3 miles.

The portion of the trip on I-5 takes less than 30 minutes for 65 percent of respondents.

TABLE 4-1 DISTANCE OF I-5 TRIP

APPROXIMATELY HOW LONG IS THE PART OF THE TRIP ON THE I-5?	
	MEAN MILES
HISPANIC	21.8
WHITE	17.0
AFRICAN AMERICAN	23.7
ASIAN/PAC ISLAND	16.5
<\$34,000	13.9
\$35-49,000	19.5
\$50-74,000	18.3
\$75-99,000	21.3
\$100,000 +	16.3
ALL RESPONDENTS	17.5

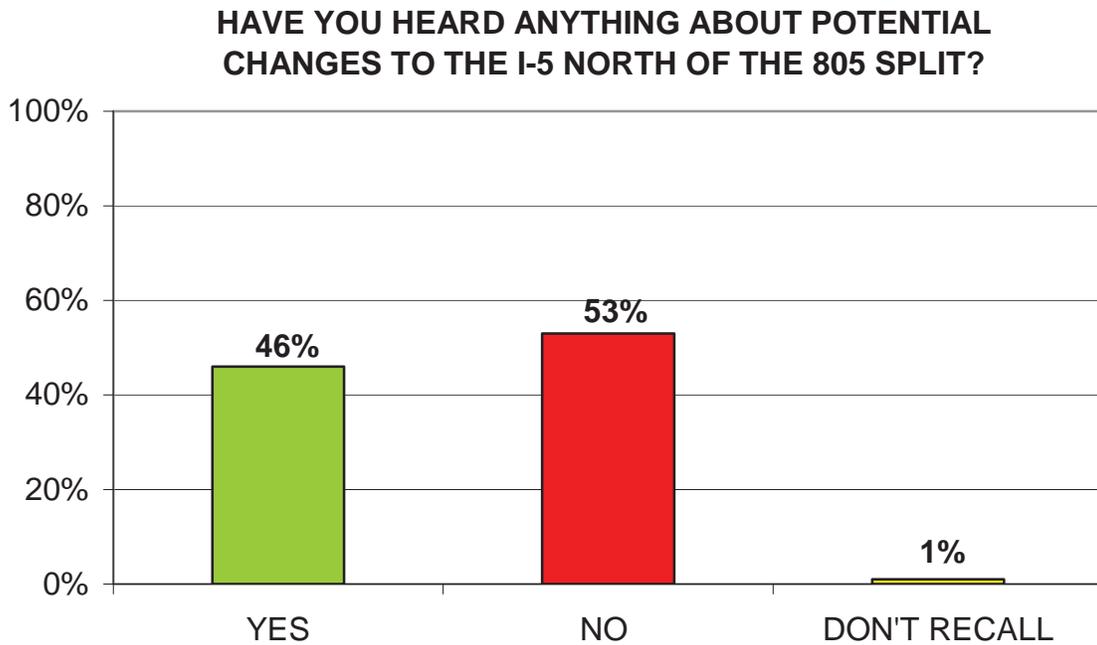


Respondents were asked if they had heard anything about potential improvements to the I-5 freeway and their opinions about possible improvement projects.

4.4 POTENTIAL I-5 IMPROVEMENTS

Forty-six percent of respondents had heard something about potential improvements to the I-5 freeway north of the I-805 split. Respondents 40 years of age and older were more likely than younger respondents to be aware of possible freeway improvements. Those with higher household incomes in the \$75,000 and up range were also more likely to have heard something about the potential project than those in the lower income ranges.

FIGURE 4-5 AWARE OF POTENTIAL I-5 PROJECT

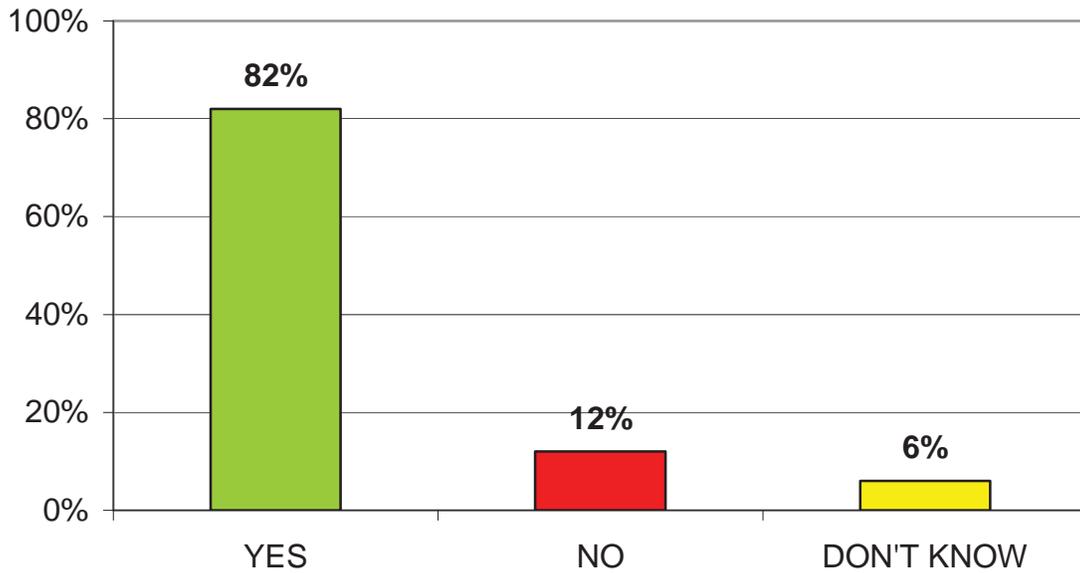


Of those who had heard of the improvements, most believed that they had heard about it from the newspaper (46%). Respondents under 29 years of age and Hispanics were more likely to recall seeing the information on television (both at 41%).

Eighty-one percent recall the potential improvements as adding lanes to the freeway, and 82 percent support proposed improvements. Support is above 70 percent across all demographic groups, with the exception of those in the lowest household income bracket of less than \$34,000 annually (67%).

FIGURE 4-6 SUPPORT IMPROVEMENTS

**BASED ON WHAT YOU HAVE HEARD SO FAR,
DO YOU SUPPORT THESE IMPROVEMENTS?**

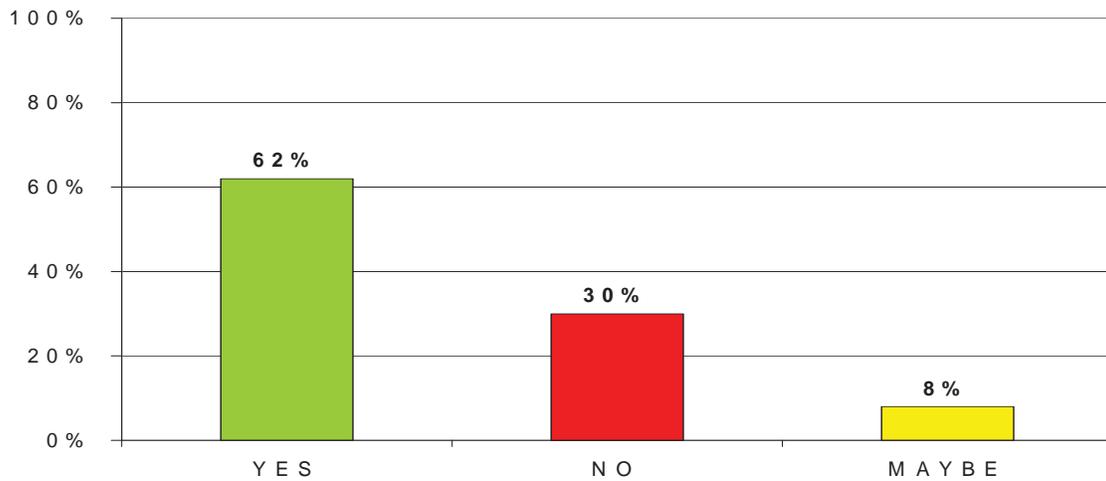




When asked if they support construction of one new general purpose lane and two express toll lanes, 62 percent of respondents agreed.

FIGURE 4-7 SUPPORT GENERAL PURPOSE AND TOLL LANES

DO YOU SUPPORT CONSTRUCTION OF ONE NEW
GENERAL PURPOSE LANE AND TWO TOLLED EXPRESS
LANES ON I-5?

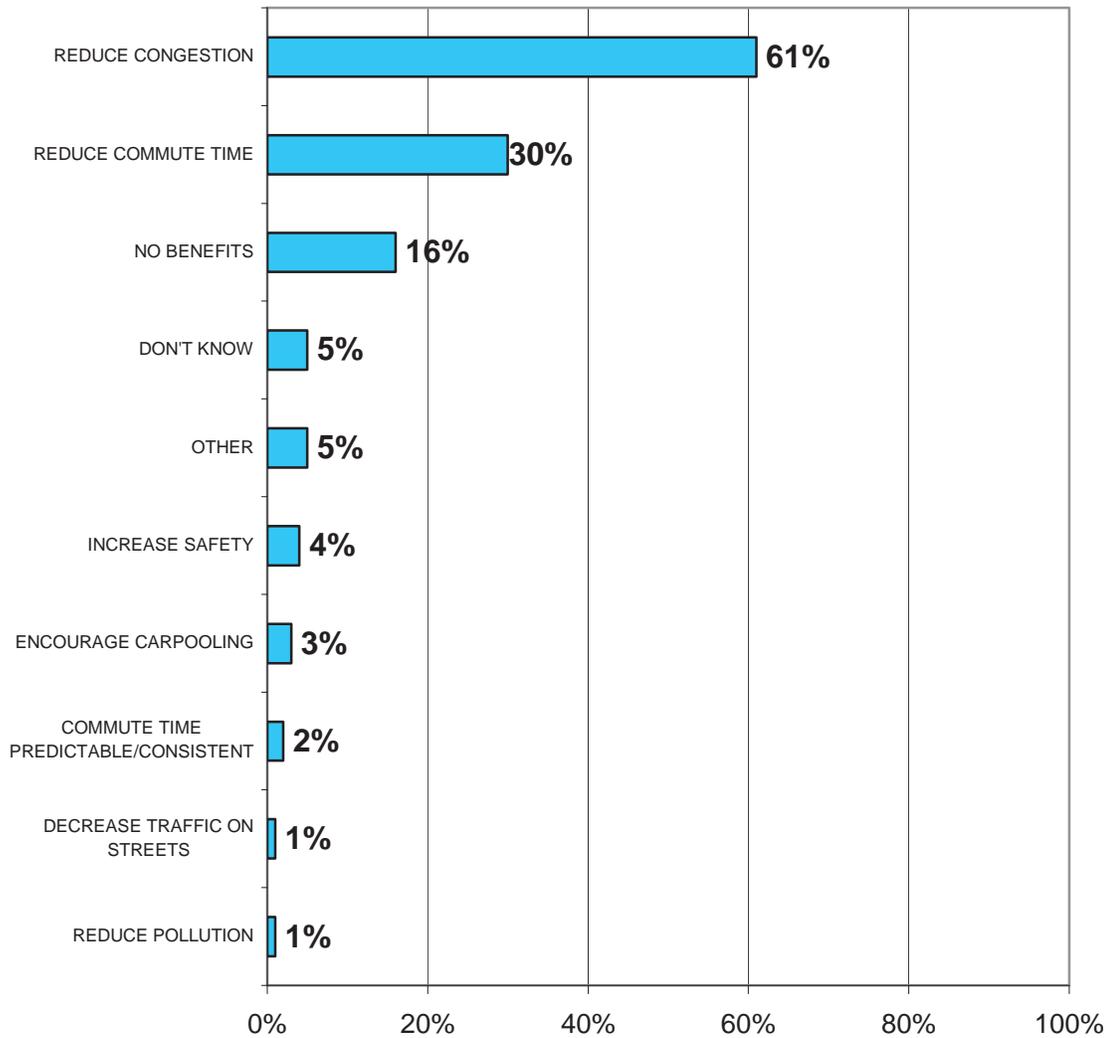




The majority feel that the most important benefit of this potential project would be reduced congestion, with 61 percent citing this advantage. Thirty percent mentioned reduced commute times.

FIGURE 4-8 MOST IMPORTANT BENEFIT

WHAT DO YOU SEE AS THE MOST IMPORTANT BENEFITS OF THIS PROJECT?



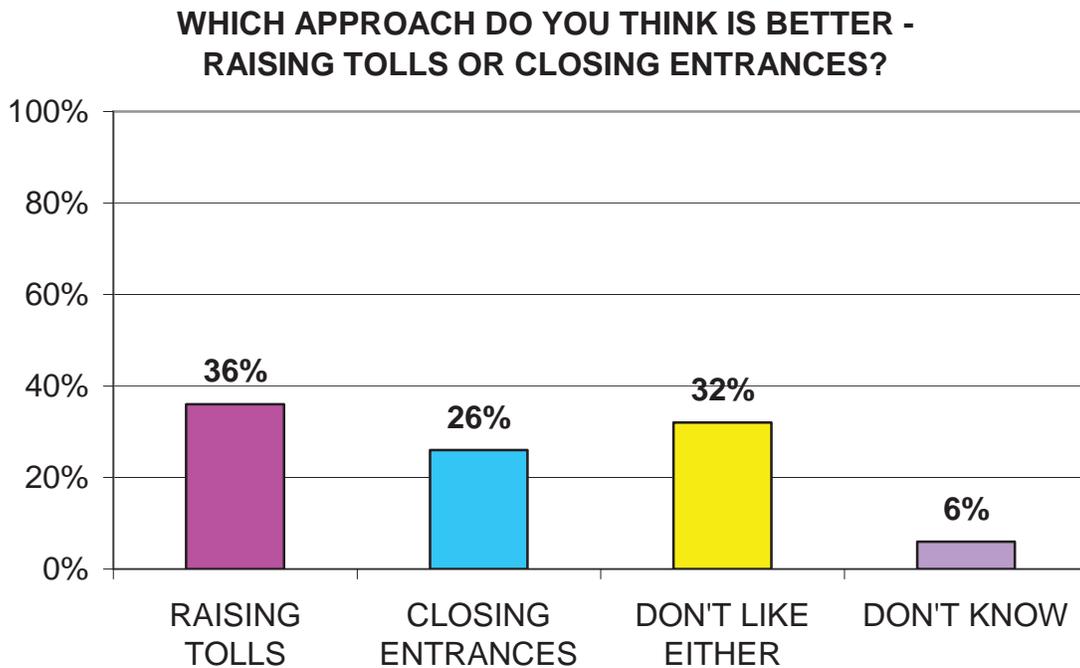
The most commonly stated concern with the proposed improvements is that the project would take too long to complete, with 23 percent citing this concern. Following this issue are worries about another tax to commuters at 14 percent, and concerns that the project would not decrease congestion or would create construction congestion at 12 percent each.

Survey participants were questioned regarding tolling usage, fairness and preferences..

4.5 TOLLING

Respondents are divided on the question of whether closing entrances or raising tolls is a better approach to controlling congestion, with more preferring the method of raised tolls. Thirty-two percent indicated that they do not like either option.

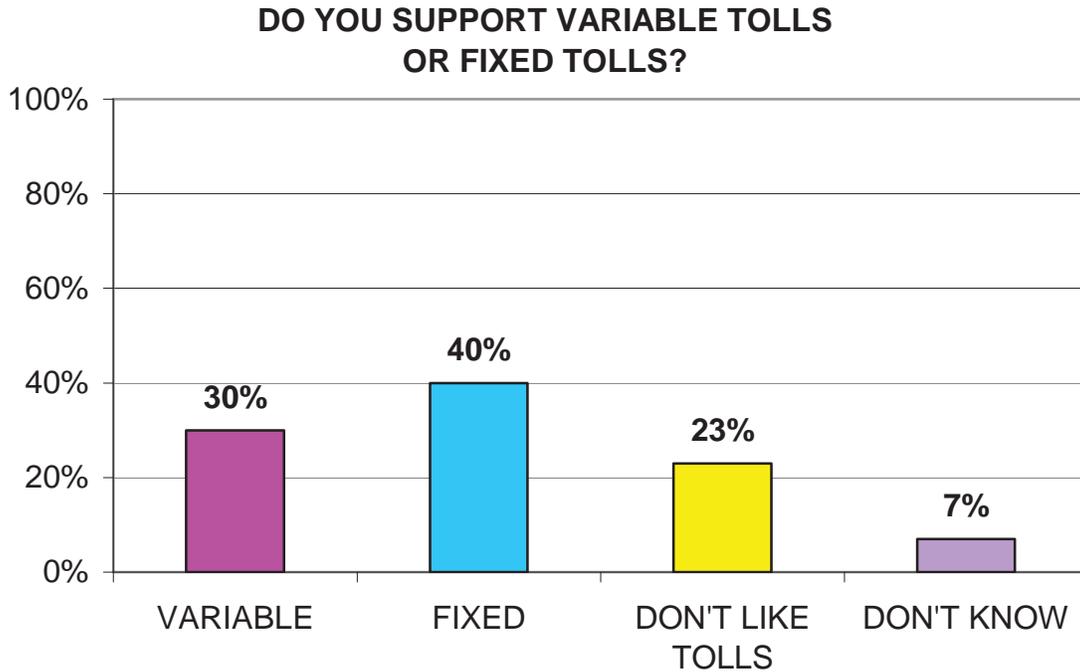
FIGURE 4-9 RAISING TOLLS VERSUS CLOSING ENTRANCES





Respondents also are divided on preference for variable or fixed tolling, with more preferring fixed tolls at 40 percent. Twenty-three percent said that they do not like any tolls.

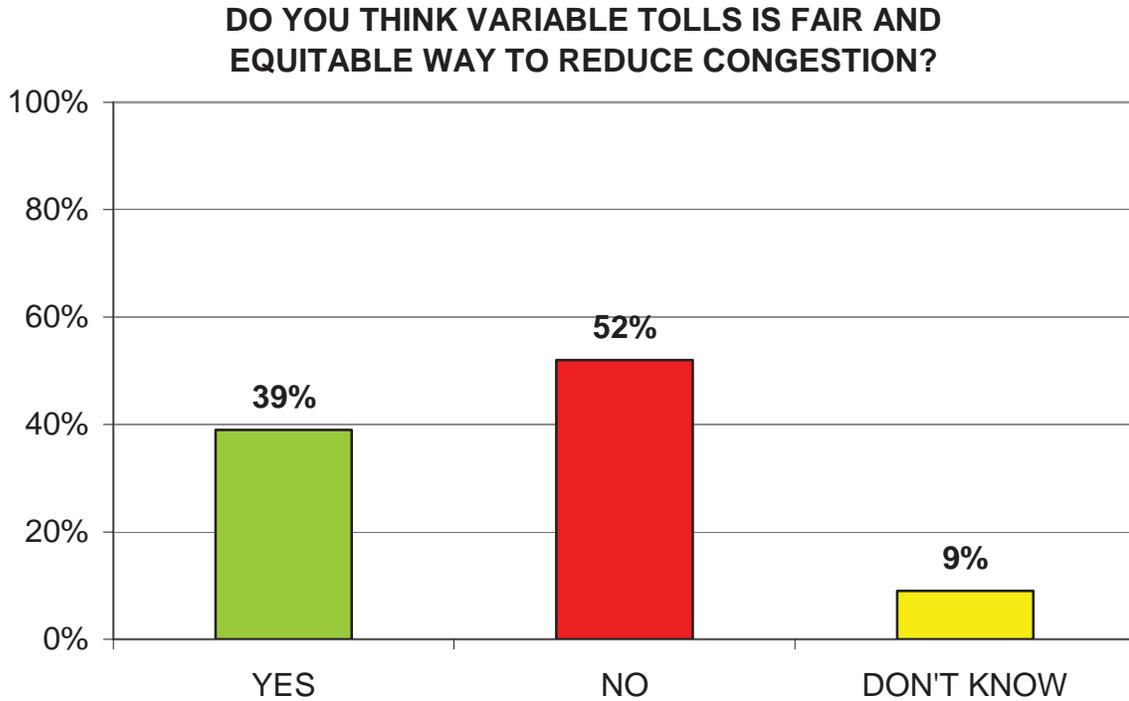
FIGURE 4-10 VARIABLE TOLLS VERSUS FIXED TOLLS





When asked if they feel that variable tolling is an equitable way to control congestion, 52 percent replied that they do not. African Americans are most strongly opposed to variable tolls with 65 percent stating that variable tolls are not fair and equitable. Those in the 18 to 29 age group are most likely to be in favor of this option, with 51 percent responding that variable tolls were fair.

FIGURE 4-11 VARIABLE TOLLS, FAIR AND EQUITABLE

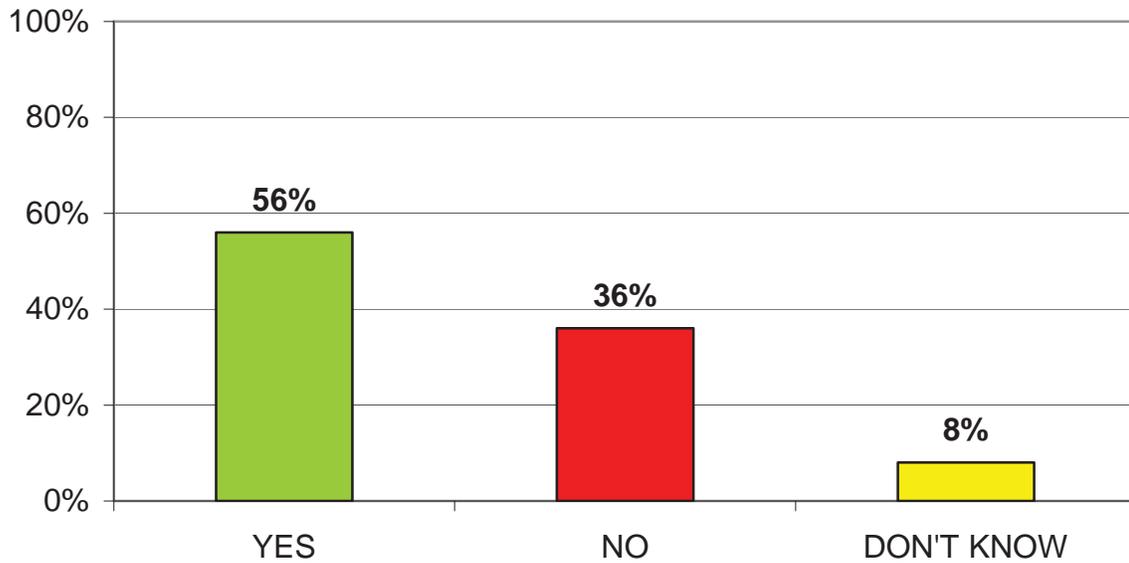




Fifty-six percent of respondents feel that fixed tolls are fair and equitable. Those 55 and older and those in the \$75,000 to \$99,000 household income bracket are the groups that feel most strongly that fixed tolls are unfair, at 43 and 44 percent respectively.

FIGURE 4-12 FIXED TOLLS, FAIR AND EQUITABLE

DO YOU THINK FIXED TOLLS IS A FAIR AND EQUITABLE WAY TO REDUCE CONGESTION?





In the final section of the survey before collecting demographic information, survey participants were asked whether they agreed or disagreed with statements that apply to potential I-5 improvements.

4.6 PROPOSED PROJECT OPINIONS

Respondents were asked several opinion questions about the proposed project, and were asked to respond on a four point scale from “Strongly Disagree = 1” to “Strongly Agree = 4”.

The following table details these scale questions and the percent of respondents in each category, along with the mean rating.

Overall, corridor users feel that additional lanes should be built, and they indicate a slight preference for managed lanes (supported by 53 percent). Respondents also agree that toll lanes can be used to help defray the costs of freeway expansion. The preferred method of division between toll and general purpose lanes is something other than a painted line.

Although I-5 users believe the toll lanes expansion will reduce congestion, they are not optimistic about the other benefits of toll lanes such as increased carpooling, improved traffic flow with raised tolls, safer driving, or reduced pollution. However, respondents did not feel that the project would increase noise in neighborhoods either.



TABLE 4-2 PROPOSED PROJECT OPINIONS

QUESTIONS:	RATING					MEAN
	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	DON'T KNOW	
HAVING TOLL EXPRESS LANES IS A GOOD WAY TO HELP PAY FOR THE FREEWAY EXPANSION	8%	15%	65%	9%	3%	2.78 AGREE
TOLL EXPRESS LANE PROJECT WILL HELP REDUCE CONGESTION	7%	20%	58%	10%	5%	2.75 AGREE
DIVIDER BETWEEN EXPRESS AND REGULAR LANES SHOULD BE MORE THAN PAINTED LINES	6%	32%	45%	12%	5%	2.66 AGREE
ONLY GENERAL PURPOSE LANES SHOULD BE BUILT ON I-5	6%	47%	28%	14%	5%	2.52 DISAGREE
HAVING TOLL EXPRESS LANES WITH FREE OR REDUCED TOLLS WILL INCREASE CARPOOLING	9%	36%	47%	4%	4%	2.49 AGREE
TOLL EXPRESS LANE PROJECT WILL MAKE THE I-5 SAFER	7%	35%	41%	4%	12%	2.48 AGREE
TOLL EXPRESS LANE PROJECT WILL INCREASE THE NOISE LEVEL IN NEIGHBORHOODS	4%	50%	30%	7%	9%	2.44 DISAGREE
HAVING TOLL EXPRESS LANES IS A BETTER WAY TO IMPROVE TRAFFIC FLOW THAN ADDING REGULAR LANES	13%	35%	38%	6%	8%	2.40 DISAGREE
MONEY SHOULD BE INVESTED IN BUSES / TRAINS INSTEAD OF FREEWAYS	12%	47%	23%	11%	6%	2.37 DISAGREE
RAISING TOLLS IS AN EFFECTIVE WAY TO CONTROL CONGESTION	13%	38%	39%	3%	6%	2.35 DISAGREE
CLOSING TOLL EXPRESS LANE ENTRANCES IS A FAIR WAY TO CONTROL CONGESTION ON THOSE LANES	13%	43%	36%	2%	7%	2.28 DISAGREE
TOLL EXPRESS LANE PROJECT WILL REDUCE POLLUTION	11%	52%	23%	3%	11%	2.20 DISAGREE
NO NEW FREEWAY LANES SHOULD BE BUILT	32%	54%	9%	3%	2%	1.82 DISAGREE

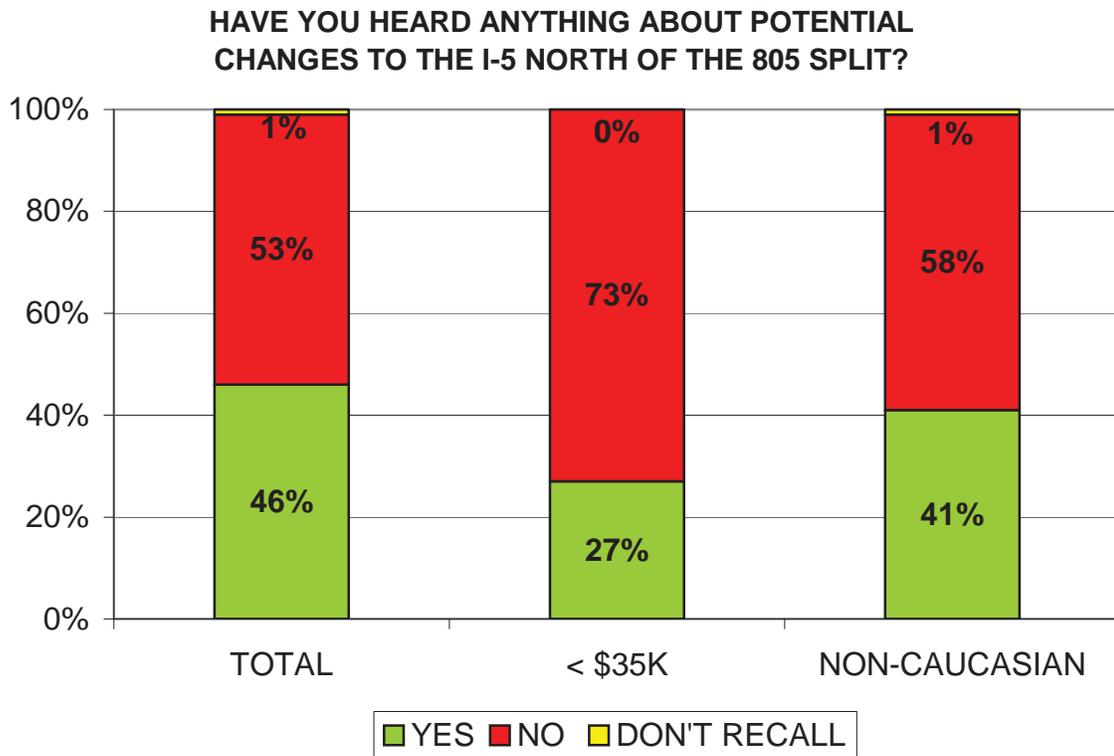


In order to be certain that all segments of the population have been surveyed and are accounted for in the decision making process, following is a break down of opinions by non-Caucasian and lower income (less than \$35,000 annual household income¹) users of the I-5 freeway.

4.7 ENVIRONMENTAL JUSTICE

Those at lower income levels are less likely than the average commuter to have heard about potential I-5 improvements, while non-Caucasian users are only slightly less aware of possible changes.

FIGURE 4-13 AWARE OF POTENTIAL I-5 PROJECT



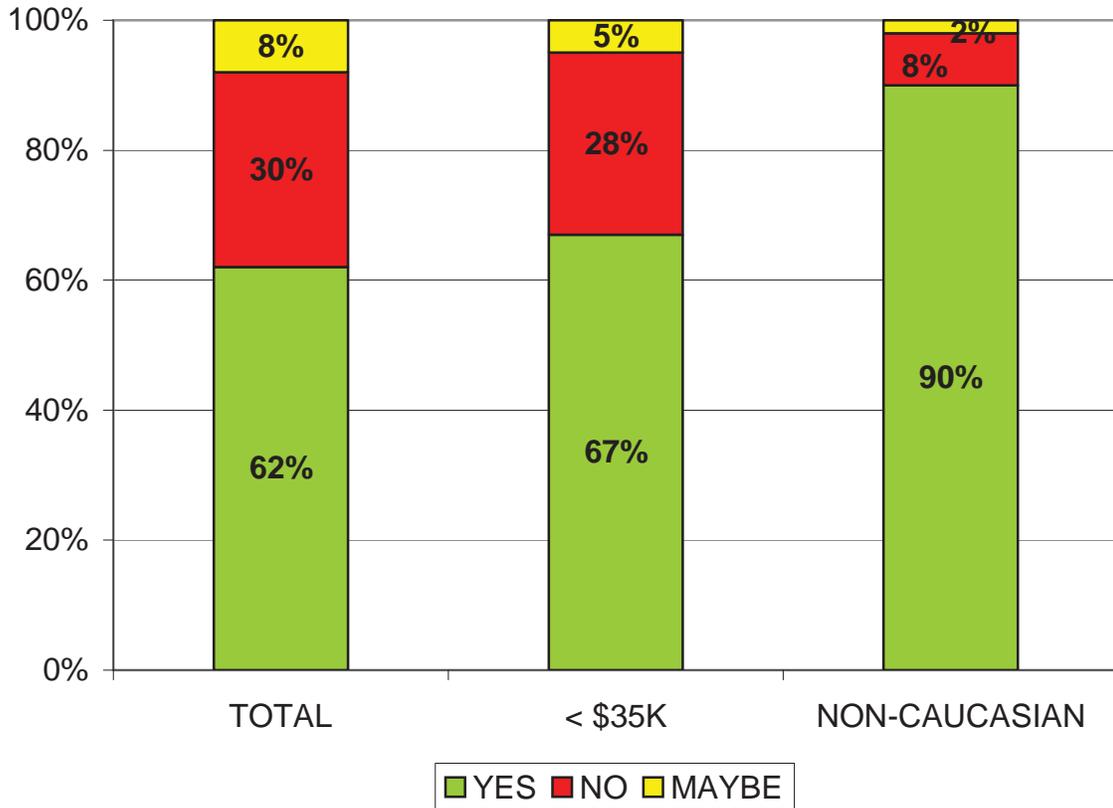
¹ Since household size was not collected in this survey, \$35,000 was selected as the best overall cut point to define low income households.



Non-Caucasian users are much more supportive than the average user of the proposal to add one additional general purpose lane and two toll lanes.

FIGURE 4-14 SUPPORT GENERAL PURPOSE AND TOLL LANES

DO YOU SUPPORT CONSTRUCTION OF ONE NEW GENERAL PURPOSE LANE AND TWO TOLLED EXPRESS LANES ON I-5?

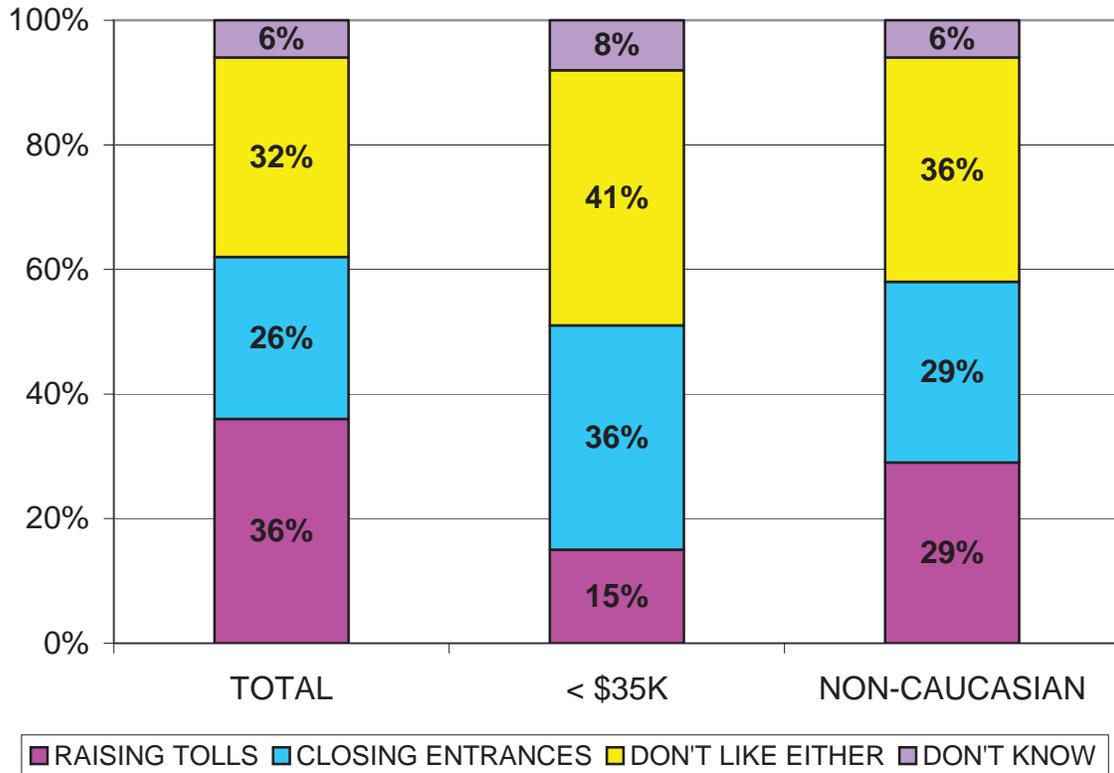




Both lower income and non-Caucasian respondents are less in favor of raising tolls and more in favor of closing entrances to control congestion than respondents overall. However, the lower income and non-Caucasian groups are also more likely to say that they are not in favor of either option than the average. As shown in the chart below, those at the lower income level differed more from the average than the non-Caucasian group.

FIGURE 4-15 RAISING TOLLS VERSUS CLOSING ENTRANCES

**WHICH APPROACH DO YOU THINK IS BETTER -
RAISING TOLLS OR CLOSING ENTRANCES?**

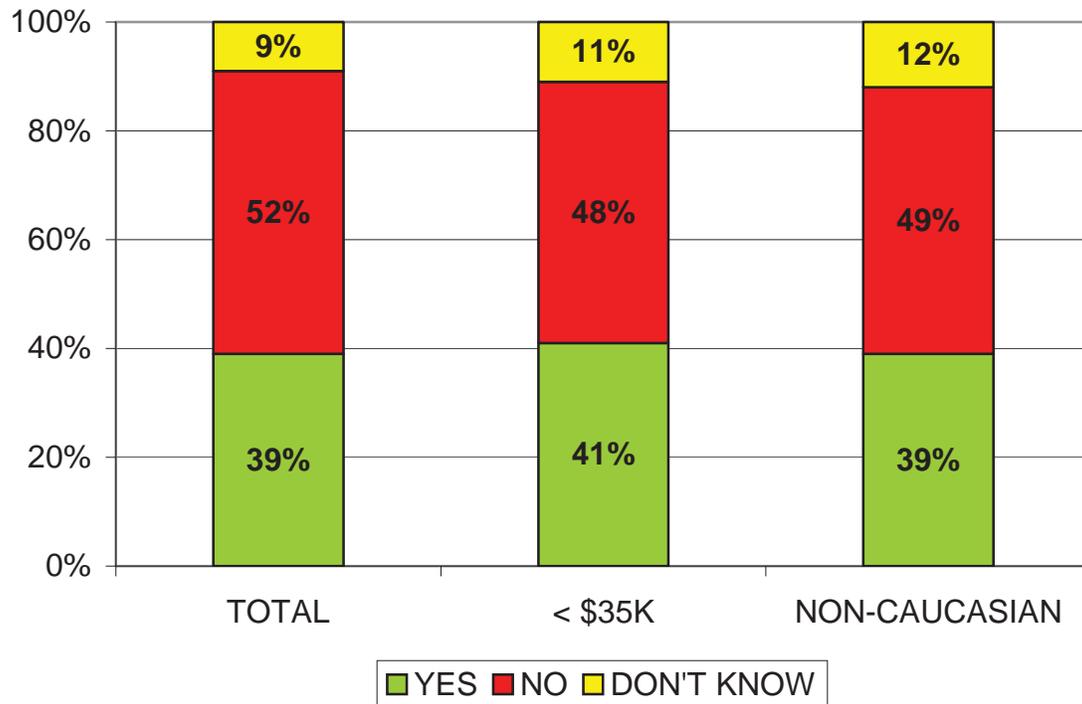




Non-Caucasian and lower income commuters are consistent with the average corridor user in regard to the fairness of variable tolls.

FIGURE 4-16 VARIABLE TOLLS, FAIR AND EQUITABLE

DO YOU THINK VARIABLE TOLLS IS A FAIR AND EQUITABLE WAY TO REDUCE CONGESTION?

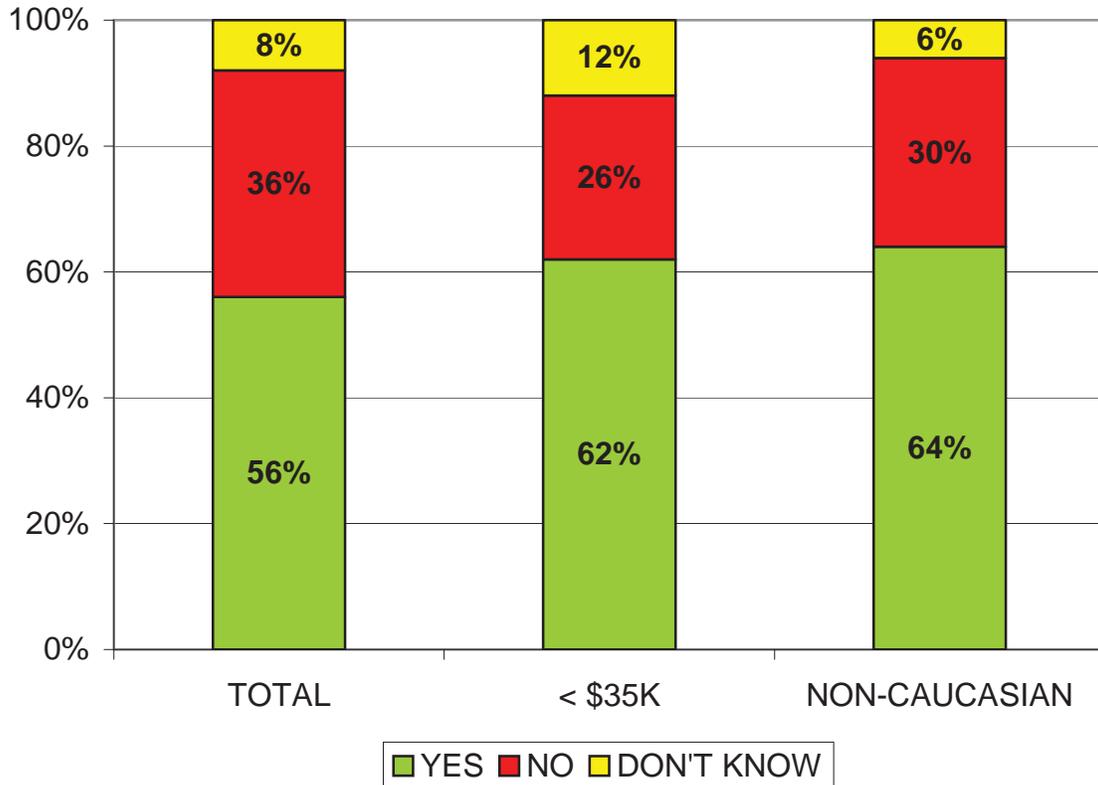




Lower income and non-Caucasian respondents are more likely than the average user to believe that fixed tolls are fair and equitable.

FIGURE 4-17 FIXED TOLLS, FAIR AND EQUITABLE

DO YOU THINK THAT USING A FIXED TOLL IS A FAIR AND EQUITABLE WAY TO REDUCE CONGESTION?



Respondents were asked several opinion questions about the proposed project, and were asked to respond on a four point scale from “Strongly Disagree = 1” to “Strongly Agree = 4”. In general, both non-Caucasian and lower household income respondents are generally consistent with the total population, but are slightly more likely to agree with the positive opinion statements.

Both lower income and non-Caucasian respondents are more likely than average to agree that tolls lanes with free or reduced tolls for multiple passengers will increase carpooling, that the express lane project will make I-5 safer, and that toll express lanes are a good way to pay for freeway expansion. However, both groups are more likely to say that only general purpose lanes should be built.



TABLE 4-3 PROPOSED PROJECT OPINIONS, ENVIRONMENTAL JUSTICE

QUESTIONS:	<\$35,000 HOUSEHOLD INCOME MEAN	NON-CAUCASIAN MEAN	TOTAL MEAN
HAVING TOLL EXPRESS LANES IS A GOOD WAY TO HELP PAY FOR THE FREEWAY EXPANSION	2.85 AGREE	2.88 AGREE	2.78 AGREE
TOLL EXPRESS LANE PROJECT WILL HELP REDUCE CONGESTION	2.78 AGREE	2.92 AGREE	2.75 AGREE
DIVIDER BETWEEN EXPRESS AND REGULAR LANES SHOULD BE MORE THAN PAINTED LINES	2.83 AGREE	2.70 AGREE	2.66 AGREE
ONLY GENERAL PURPOSE LANES SHOULD BE BUILT ON I-5	2.62 AGREE	2.65 AGREE	2.52 DISAGREE
HAVING TOLL EXPRESS LANES WITH FREE OR REDUCED TOLLS WILL INCREASE CARPOOLING	2.58 AGREE	2.63 AGREE	2.49 AGREE
TOLL EXPRESS LANE PROJECT WILL MAKE THE I-5 SAFER	2.58 AGREE	2.63 AGREE	2.48 AGREE
TOLL EXPRESS LANE PROJECT WILL INCREASE THE NOISE LEVEL IN NEIGHBORHOODS	2.53 AGREE	2.34 DISAGREE	2.44 DISAGREE
HAVING TOLL EXPRESS LANES IS A BETTER WAY TO IMPROVE TRAFFIC FLOW THAN ADDING REGULAR LANES	2.46 DISAGREE	2.56 AGREE	2.40 DISAGREE
MONEY SHOULD BE INVESTED IN BUSES / TRAINS INSTEAD OF FREEWAYS	2.39 DISAGREE	2.30 DISAGREE	2.37 DISAGREE
RAISING TOLLS IS AN EFFECTIVE WAY TO CONTROL CONGESTION	2.35 DISAGREE	2.49 DISAGREE	2.35 DISAGREE
CLOSING TOLL EXPRESS LANE ENTRANCES IS A FAIR WAY TO CONTROL CONGESTION ON THOSE LANES	2.41 DISAGREE	2.38 DISAGREE	2.28 DISAGREE
TOLL EXPRESS LANE PROJECT WILL REDUCE POLLUTION	2.30 DISAGREE	2.29 DISAGREE	2.20 DISAGREE
NO NEW FREEWAY LANES SHOULD BE BUILT	1.98 DISAGREE	1.85 DISAGREE	1.82 DISAGREE

Lower income users are also more likely to agree that the noise level in neighborhoods might increase because of the express lane project. Non-Caucasian respondents are more likely to agree that having toll lanes is a better way to improve traffic flow than simply adding regular lanes, and are come closer to agreeing that raising tolls is an effective way to control congestion.



APPENDIX A

I-5 NORTH COAST MANAGED LANES

STAKEHOLDER INTERVIEW GUIDE



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant: _____

Interview conducted/attended by: _____

Interview date: _____

1. Introduction (3 min)

- **Explain Purpose of Interviews**
 - Document perceptions of transportation conditions on I-5 travel, their needs regarding trips to work, school, shopping, and other essential local, regional, and intrastate destinations.
 - Gather initial feedback on pricing and traffic management options being considered for I-5, with focus on managed lanes in the median. That is, we are not seeking to duplicate Caltrans' efforts to obtain feedback on the overall I-5 widening, nor impacts or benefits associated with that. However, we do want to know if, or how, stakeholders perceive variants of the managed lanes component under study as they affect the I-5, including the question of whether they make the widening project more or less appealing.
 - Gather attitudes and expectations of the project, with focus on pricing.
 - Document suggested project modifications to address stakeholder concerns.
- **Describe Follow-up to Interview Process**
 - Interview participant will be sent a written summary of the interview for review and approval, allowing for a two week review period.
 - Approved summary will become part of the study report summarizing stakeholder interviews
 - Summary and analysis grouped by type.
- **Review Study Purpose, Process, and Timeline**
 - Traffic Operation Plan: July-Nov 1, 2004
 - Traffic Forecast Report: July-Nov 15, 2004
 - Alternative Pricing Strategies: July-September 30, 2004
 - Traffic and Revenue Analysis: July 04-Feb 2005
 - Technical/Operations System Analysis: July 04-Jan 25, 2005
 - Other Community Outreach Tasks:
 - ❖ Round 1 Focus Groups (2 groups) November 16, 2004
 - ❖ Round 2 Focus Groups (3 groups) March 3, 2005
 - ❖ 800-Household Telephone Survey: January/February 2005
 - ❖ Intercept Surveys: February 2005
 - Final Presentation to SANDAG Transportation Committee: June 2005
 - Recommendations to SANDAG Board: July 2005



2. Perception of Existing and Future Corridor Mobility Conditions (2min)

QUESTIONS:

- How would you describe the current traffic/transportation conditions on I-5?
- What are the transportation issues or concerns shared by members of the group you represent (if applicable)?

3. Awareness of and Existing Attitudes about Managed Lanes (3 min)

QUESTIONS:

- Are you familiar with the current I-15 Express Lanes?
- Do you think they provide an efficient mobility option for travelers?
- Do you think they're fair? What does fairness mean to you in this context?
- Are you generally in favor of applying a pricing strategy to the I-5 corridor?
[Inform interviewee that the pricing strategies that prove to be effective on I-5 may differ from those now used on I-15.]
 - Why/why not?

4. DESCRIBE Managed Lane Options (10-13 Min)

Describe project, review map or other visual aids

- **Context**
 - *Traffic statistics: average daily traffic at Del Mar Heights Rd. – busiest point—is now 224,000 vehicles; will be 345,000 by 2030, per Caltrans;*
- **Concept**
 - Like the I-15 ML, but two lanes in each direction that would operate 24 hours a day, seven days a week with periodic access from the freeway mainlines and from dedicated ramps connected to major overcrossing/undercrossing streets (not reversible/no movable barriers)
 - May or may not be barrier separated
 - 26 miles long
 - Goal to move more people, not more vehicles, by providing at least four free flowing lanes for carpoolers, transit buses, and others willing to pay to better manage demand by time of day. Depending on the time of day, paying others might include lower occupancy HOVs, trucks or solo drivers (like on I-15)
 - Cutting 2030 Oceanside to San Diego drive time from 66 to 49 minutes based on 2030 Regional Transportation Plan
- **Physical Options**
 - Option A (10+4 painted buffer with designated access)
 - Option B (10+4 physical barrier with designated access)
 - Option C (8+4 physical barrier with designated access)
 - Option D (8+4 painted buffer with designated access)
- **Range of alternative pricing scenarios under consideration**
 - **Tolls**



- Fixed vs. variable
- Zoned or flat (one segment higher than another)
- Time of day (congestion pricing perhaps only during peak commute periods)
- Predetermined amount or whatever it takes to maintain free-flow
- **Access vs. Tolls**
 - Different options to manage demand and preserve speed advantages
- **Range of toll levels to be considered and likely impacts**
 - NOTE: Toll testing will not be complete before stakeholder interviews are underway, but we will develop some reasonable scenarios, based more or less on the I-15 toll levels that now keep the managed lanes congestion-free. For example:
 - A typical peak period toll (one-way) of \$6 was developed using the cost of a minute of time saved on the I-15 lane. The average peak period toll paid in 2000 on I-15 was \$2.00, and the average time saved was 8 minutes, for a cost of about \$0.25/minute of time saved. Let's assume that the entire toll lane will operate at 55 mph in 2025, and assume the general purpose lane will operate at 30 mph average. Then the time savings assuming one used the entire facility would be:

Time Costs/Time Savings for Entire 26-Mile Facility:

General purpose lane time: $26/30 \times 60 = 52$ minutes
Toll lane time: $26/55 \times 60 = 28$ minutes

Savings = 24 minutes = a toll of \$6 would be equivalent for the time savings.

- Remind stakeholders that a higher toll may apply only to short periods of time, or shorter segments (not the entire 26-mile facility.)
- **Access/Ingress/Egress (Show Concept)**
- **Transit and rideshare alternatives, treatment of HOVs**
 - *PB modeling threshold changes based on Caltrans standard of 1650 vph/lane or 3300 vph for two lanes. Design horizons are 2015 and 2030.*
- **Use of toll revenue**
- **Enforcement (similar to Managed Lanes)**
- **Hours of operation (perhaps only during peak)**
- **Technology (FasTrak™ technology, or future GPS technology)**
- **Financing –combination of traditional Caltrans sources and TransNet sales tax**
- **Possible access to lanes by different vehicle types**

5. QUESTIONS: Project Concept/Operations Pros and Cons (20 min)



- What, if any, will your (your agency or organization's) role be in planning and/or implementing the new project?
- What current community issues could affect the outcome of the proposed project, or be affected by the project? How?
- What are your (or your organization's) concerns or problems with this approach?
 - What do you see as the project's biggest challenge?
- Understanding that physical access to the lanes can be combined with toll management of lane volumes, what are your priorities for use of the managed lanes?
 - Encourage buses/transit vehicles
 - Encourage vanpools
 - Encourage carpools
 - Increase options for solo drivers to buy-in
 - Allow trucks to use the lanes at appropriate periods during the day
 - Allow emergency vehicles at no toll
 - Allow clean air vehicles at no toll
 - Other
- Which is preferable to avoid congestion on the managed lanes---limiting access, increasing tolls, or combination?
- Access/Ingress/Egress
 - How open or closed should the facility be?
 - Should all access points be open to all users or should some be limited to transit (i.e., park and ride lots)?
 - What conditions should be taken when lanes overload—should access be able to be closed at a specific location?
 - Could a pricing penalty be used if somebody violated a closed access?
 - Physical barrier vs. painted barrier—your views?
 - Frequency of access points – speed & safety vs. access—your views?
 - What would you recommend if time is saved along the project, but traffic has to merge back into same number of lanes downstream? That is, what approach would you use to give merging priority to some, but not all users?
- Do any of the project options present safety and/or enforcement concerns for you?
- Signage and toll information
 - If you've traveled the I-15 Express Lanes, do you think the signing is effective?
 - What concerns about signage and toll information do you have on the I-5 corridor?
- What is your reaction to a peak-period toll of \$6 (for the entire 26 mile facility) that would save you at least 24 minutes of travel time?
- How would you like to see toll revenues from this project spent? For example,
 - To support new transit in I-5 Corridor
 - Subsidize carpooling programs
 - Any highway purpose within I-5 Corridor
 - Other?
- What is the importance of providing modal choice in how you view I-5 corridor operations?



- What do you suppose would be the impact on travel behavior of implementing a pricing strategy?
 - Impact on your own personal travel patterns, mode, time
 - What is the potential in this corridor for transit and carpooling?
 - Impact on travel behavior for corridor commuters overall
 - Impact on your organization's members
- Perceived effectiveness—do you think the Managed Lanes will move more people than regular carpool lanes? Than main lanes?
- What are your (or your organization's) views on potential environmental benefits/concerns (e.g., noise, pollution, impact on lagoons)?
- Do you have any suggestions for improving the concept or design?
 - What steps do you think could/should be taken with regard to any issues that could affect the project?

6. QUESTIONS: Environmental Justice Issues (10 Min)

- How do you see the issue of equity relative to this project?
- How could any identified impacts or problems be mitigated with modifications to the project?
- What do you suppose would be the perception of fairness on the part of other groups?
 - Low income populations
 - Members of ethnic minorities
 - User groups
 - I-5 main lane users
 - HOV lane users
 - Transit riders
 - San Diego commuters vs. interregional travelers
 - Truckers
- What areas of the community, or what specific groups do you think have a special interest in the project? How do you think we should involve them?
- What areas of the community, especially along the corridor tend to be underrepresented in community discussions? How do you think we might involve these communities more effectively?

7. QUESTIONS: Other Public Input (5 Min)

- Thinking about I-5, and for a moment separating the larger freeway widening project from the managed lanes options we've been discussing, where do you see support/opposition coming from with respect solely to I-5 North Coast managed lanes? What would be the basis for support/opposition? Which project variations would, in your view, receive more support?
- Would it surprise you to learn that
- SANDAG will be conducting an 800-household telephone survey addressing value pricing feasibility on the Managed Lanes project. What would you like to learn from that effort?

8. Wrap-Up (1 Min)



- Reminder that stakeholders will receive copies of their statements (via e-mail) and given two weeks to check for accuracy.
- How would you like to be kept apprised of new developments as this project planning study goes forward?
- Thank you!



APPENDIX B

I-5 NORTH COAST MANAGED LANES STAKEHOLDER INTERVIEW SUMMARIES



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Mr. Leon Williams, Chairperson Metropolitan Transit System (MTS)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 19, 2004

MTS's Role in Project Planning or Implementation

MTS does not have much of a role; it's really a SANDAG function.

Perception of Existing and Future Corridor Mobility Conditions

Conditions on I-5 are very undesirable. There is severe congestion and there are no alternatives for through traffic. If you're on it, you're simply stuck and you have no recourse.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Williams is familiar with I-15 FasTrak, but does not use them.

Efficiency

Mr. Williams does not think they really offer an efficient mobility option because in the long run, they diminish the effectiveness of HOV lanes, allowing people with means to avoid congestion without changing their behavior. It would be better to promote the utilization of HOV lanes. Nor do the lanes have much a positive impact on the adjacent general purpose lanes.

Fairness

Mr. Williams doesn't think they're fair, in the sense that if someone has means, whether that's due to a smaller family or larger disposable income, they can use the lanes. And it's not reducing crowding on the freeway.

Applicability to I-5 Corridor

Mr. Williams is not in favor of pricing on the I-5 Corridor. Instead, he thinks the region should make a big splash in favor of HOV use and put vehicles and buses on those lanes that really work.

Project Concept & Operations Pros and Cons

Current Community Issues

One problem is that of vehicle queuing onto surface streets and into communities at metered ramps.



Priorities for Use of Managed Lanes

Use of the lanes should be prioritized according to vehicle capacity and occupancy, in descending order. Whatever else, the lanes must be clear for high occupancy vehicles. Trucks could be permitted if they don't interfere with operations, but if trucks use it regularly, no one else will want to. Emergency vehicles should be allowed, but not to the extent that they impede the major purpose of the lanes—HOV. Clean air vehicles should not be allowed to use the lanes for free as solo-occupancy vehicles.

Managing Demand: Access vs. Tolls

Mr. Williams does not agree with the value pricing concept for managed lanes, but would leave this issue to Caltrans to implement whatever works to move more people (not vehicles).

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Choose the strategy that minimizes violations.

Number of Access Points

Mr. Williams thinks freeways should serve through-traffic, and not be used for local traffic, and that fewer access points would therefore be preferable. He suggests that more attention be focused on developing local community circulation, including public transportation within and between communities.

Operating the Lanes: Ingress/Egress Priority

Always prefer HOV—carpoolers already endure an inconvenience, so anything that can be done to make that up is desirable.

Signage and Toll Information

Mr. Williams notes that he has missed the I-15 FasTrak entrance a few times because the signs were not clear. There's no indication that a motorist should veer into the left lane to access the Express Lanes. Caltrans should improve on that for the I-5 Corridor.

Importance of Modal Choice on the I-5 Corridor

It's very important to give people choices.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

The toll should be high enough to represent a real premium price.

Use of Toll Revenue

Premium transit service should be the only target for toll revenue.



Managed Lanes' Likely Impact on Travel Behavior

People would carpool less—they'll choose to have their music and their sport utility vehicle (SUV), if they have the choice to pay to drive alone.

Effectiveness in Moving People

The lanes would move fewer people than regular carpool lanes because they allow lower occupancy vehicles for a fee, but more than main lanes because they operate at free-flow during peak periods.

Environmental Issues

Although the freeway widening itself has environmental impacts, it would be hard to quantify impacts that relate specifically and solely to the value pricing component of the managed lanes. However, the ability to buy your way out of congestion as a solo driver could encourage commuters to reside farther from their workplace and therefore induce sprawl.

Safety, Enforcement, and Related Operational Issues

In general, these issues are best left to Caltrans engineers and planners. CHP especially will close down freeways much longer than they need to when there's an incident. Quicker response could minimize this type of non-recurrent congestion. Perhaps some technology could be developed to obtain whatever legal documentation of incidents is required in a quicker fashion. Perhaps some protective legislation should be developed to shield them from frivolous lawsuits attacking accident information collection techniques.

Operational Suggestions

An issue that should be explored is whether buses should possibly be allowed to drive on the shoulders.

Pros

The lanes preserve right of way for future transit solutions that will be needed.

Project Concerns and Challenges

MTS is concerned that the managed lanes, with pricing, will undermine HOV use and fuel the anti-transit sentiment of some. Mr. Williams also is concerned about equity and fairness issues.

MTS believes that high-quality transit is the only solution that will be able to move people in the future, so why make that inevitable choice more difficult by promoting the SOV? Further, sprawl will continue in the absence of a strong transit direction, making future populations more difficult to serve even with improved transit networks.



Environmental Justice Issues

Equity

There is an income-related fairness issue. This could be somewhat mitigated by providing high-quality bus alternatives.

Perceptions of Fairness

Low income groups would not perceive the managed lanes as fair. Although the equity issue is income-related, ethnicity also is income related, unfortunately, for some groups.

I-5 main lane users might be upset if they were in those lanes only because they didn't have enough money to use the managed lanes. If carpoolers and vanpoolers would not be delayed on the HOV lanes, they would probably be pleased with the project. If transit riders received real priority—access, ingress and egress priorities, and good connecting service, they would support the project. Mr. Williams notes that those who are less familiar with the lanes (for example, interregional travelers) may judge the lanes differently than those who live in the region and “own” the facility—the latter might be more critical.

Other Public Input

Underrepresented Groups

Many who ride buses never get asked to the table. A large portion of *TransNet* support came from the southern part of the County, but North County appears to receive more benefits.

Likely Sources of Project Support and Opposition

Mr. Williams is not aware of where a lot of opposition would come from. It depends on leadership—how you paint the picture determines the support or opposition you get.

Proposed Survey Question:

“Do you think it is reasonable to expect a long term solution to I-5 corridor mobility problems by catering to the automobile only? If not, how would you rate the importance of adding serious transit solutions into the mix?”



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Hon. Judy Ritter, Councilmember City of Vista; Chair, North San Diego County
Transit	Development Board (NCTD)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 17, 2004

NCTD’s Role in Project Planning or Implementation

NCTD will support adding more lanes, especially HOV lanes that the buses can use to increase on-time performance. This helps the whole system. NCTD will be working with SANDAG, MTS, and Caltrans to coordinate the regional network and develop the bus rapid transit (BRT). The common goal is to move more people.

Perception of Existing and Future Corridor Mobility Conditions

Congestion is bad and growing worse, and causes problems for the Councilmember’s constituents.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Councilmember Ritter is very familiar with the I-15 FasTrak facility.

Efficiency

By using all available capacity, the FasTrak Program does provide an efficient mobility option.

Fairness

As long as carpoolers and transit riders still ride free, and their speeds are maintained, it’s fair. It’s simply a premium service.

Applicability to I-5 Corridor

Many people along the I-15 Corridor are asking when the FasTrak will be expanded. It makes sense to look at a similar concept for the I-5 Corridor.

Project Concept & Operations Pros and Cons

Current Community Issues

Councilmember Ritter discussed value pricing and Proposition A at a recent Chamber retreat, and she guesses that the one person who thought the lanes weren’t fair was not



familiar or experienced with it. Although some of the general public might feel the managed lanes concept isn't fair, Councilmember Ritter does not hear objections about the I-15 FasTrak, and in fact, people want the facility extended more quickly than planned.

Priorities for Use of Managed Lanes

None identified.

Managing Demand: Access vs. Tolls

It is better to manage demand through using tolls. Otherwise, certain geographic areas along the alignment are likely to be unable to access the lanes during congested periods.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Caltrans will have to make this decision based on safety and operational parameters. The problem with a physical barrier would be how to allow as much access as possible to all those along the alignment. However, with the toll option, a painted barrier creates temptations for cheating which are dangerous to all.

Number of Access Points

Councilmember Ritter recommends that some of the proposed (preliminary) access points be combined, to reduce the total number. For example, there could be one access point for Solana Beach and Birmingham. Yet there's a long span between Tamarack and La Costa—there could possibly be an additional access point there, depending on traffic demand. Whatever Caltrans has to do to make the lanes work, people will come to learn where to access the lanes.

Operating the Lanes: Ingress/Egress Priority

All ingress points to the facility should be open to any eligible vehicle. As far as merging back into the main lanes, Councilmember Ritter points to the new southern terminus of the I-15 facility as a good model.

Signage and Toll Information

Councilmember Ritter believes that the I-15 Managed Lanes are effectively signed. A concern on the I-5 Corridor would be how to alert potential HOV users when the lanes are congested. She suggests more changeable message signs offering alternate route information to travelers.

Importance of Modal Choice on the I-5 Corridor

Modal choice is extremely important, it is the basis of North County Transit District's mission.



Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Councilmember Ritter thinks that perhaps \$6 to save half an hour is fair, but it is difficult to imagine the reaction in 2014.

Use of Toll Revenue

Revenues should be used for some transportation-related improvement, along the I-5 Corridor. One suggestion is BRT subsidies. Councilmember Ritter suggests that each corridor should be independent, in its use of revenues.

Managed Lanes' Likely Impact on Travel Behavior

Vista is halfway between the I-5 and I-15 corridors, and if a value-priced managed lane were implemented on I-5, Vista residents would have a new choice. Councilmember Ritter herself would, like many others, still listen to the news before making a travel decision, but an I-5 facility would definitely increase the options for travel to San Diego. Councilmember Ritter also thinks that the recent increases on the Coaster bode well for the potential for increasing transit ridership within the corridor.

Effectiveness in Moving People

Because the managed lanes use all available capacity, they will move more people than regular carpool lanes. They will also move more people than main lanes.

Environmental Issues

Councilmember Ritter does not see any environmental issues associated with value pricing on the managed lanes.

Safety, Enforcement, and Related Operational Issues

Caltrans will have to focus on safety at the access points. In that regard, good signage becomes a necessity to alert people which lanes to move into to reach their destinations. Duplicate signage is needed to allow for the fact that trucks frequently block the view of signs for passenger cars near them.

Lane violators should receive a regular CHP traffic ticket.

Operational Suggestions

Make sure that transponders are interoperable between all California regions. If it's a choice between property takes and adding median landscaping, Councilmember Ritter suggests eliminating the landscaping.

Pros

The managed lanes with value pricing provide an effective new alternative for people in the I-5 Corridor, and decrease travel time for transit and HOV users.



Project Concerns and Challenges

Councilmember Ritter believes policy-makers will have to decide whether pricing should be designed for distance travel, or whether it should have more access points and accommodate local and regional mobility patterns. She believes that there will have to be a connection to SR 76 when it is completed, because people from Temecula will use that and take some pressure off SR 78.

Environmental Justice Issues

Equity

There is not really an equity issue, since the managed lanes will free up main lanes for those who can't afford or choose not to use the lanes as toll-payers. Councilmember Ritter notes that everyone has some use for a quicker ride at some time.

Perceptions of Fairness

Councilmember Ritter hopes main lane users will understand that the managed lanes relieve traffic for them. Both carpooler/vanpoolers and transit riders should be happy with a new two-lane facility in each direction that is free to them. There will likely be no difference in perception of equity between interregional and intraregional travelers.

Other Public Input

Underrepresented Groups

None identified.

Likely Sources of Project Support and Opposition

Strong support is likely to come from weekday business travelers and weekend recreational travelers. It's uncertain where opposition would come from.

Proposed Survey Question

Pass.



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Mark Baza, Planning Department Caltrans District 11
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	December 6, 2004

Caltrans District 11's Role in Project Planning or Implementation

Caltrans' primary role is as operator of the system, tasked with doing due diligence in developing the analysis. The whole region will make the decision, ultimately. With regard to the value pricing component of the managed lanes project, Caltrans has been charged to look at pricing possibilities, to look at all options to fund and to serve transportation needs.

Perception of Existing and Future Corridor Mobility Conditions

Mr. Baza describes the I-5 as "Congested, in a nutshell."

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Baza has used the I-15 Express Lanes as a carpooler.

Efficiency

The lanes are efficient in that they maximize both existing and new capacity.

Fairness

The I-15 managed lanes are fair, in the sense that the tolls are reasonable for the premium service people get.

Applicability to I-5 Corridor

Personally, Mr. Baza favors implementation of a pricing strategy on I-5. However, Caltrans 11 does not have a technical or policy position that he is aware of. .

Project Concept & Operations Pros and Cons

Current Community Issues

Not applicable.



Priorities for Use of Managed Lanes

The highest priority would be for HOV because they move more people. Although SOV isn't a high priority, they must be considered, and the revenue aspect must be taken into account. From an operational standpoint, Mr. Baza doesn't think permitting trucks on I-5 managed lanes is the best approach. Based on SCAG's SR 60 Corridor Study, it may not even be legal to permit trucks, and it may require too much of a weave. Putting trucks on managed lanes is probably not a feasible option. Emergency vehicles should be allowed at no toll. Mr. Baza has no opinion on whether that privilege should also be extended to clean air vehicles.

Managing Demand: Access vs. Tolls

A combination of tools is best because what works in one area might not work in another. Flexibility will help in implementation. From an operational standpoint, Caltrans would only want to close off normal ingress points in case of extraordinary emergency.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Caltrans will likely use a physical barrier, whether it's movable or stationary because of safety, and to prevent weaving in a condition of great speed differentials between lanes. In fact, painted barriers are probably "not a starter" for Caltrans, given the high corridor volumes.

Number of Access Points

The technical work will have to be completed to determine the best spacing of direct access ramps (DARs). If DARs have a purpose for large attractors, or large volumes, then spacing isn't an issue. Access must be designed to serve the volumes that exist now and will exist in the future.

Operating the Lanes: Ingress/Egress Priority

There will need to be some distinctions made between vehicle or user types at some access points, but only at DARs, not slip ramps. It may not be desirable to mix carpoolers with transit at some locations, for example. The feasibility and desirability of prioritizing traffic by type back into main lanes would have to be determined on a case-by-case basis.

Signage and Toll Information

Mr. Baza thinks the signage on the I-15 managed lanes is effective for daily users, but doesn't provide enough information for newcomers or people unfamiliar with the lanes. Signage on the I-5 facility must be clear, and continuous throughout the corridor. It's a long stretch of highway, and especially if there are going to be variations in the facility, there must not only be adequate signage, but early and ongoing marketing efforts as well.



Importance of Modal Choice on the I-5 Corridor

Modal options for people are very important, and necessary from Caltrans' perspective in order to manage the system better. Caltrans is no longer in the business of just taking care of SOVs.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Baza thinks that is a reasonable toll, and in the middle of the peak, he'd use the lanes at \$6.00 per trip.

Use of Toll Revenue

Although the toll revenues won't be significant, Mr. Baza would like to see them directed to new transit, carpooling and other highway purposes along the I-5 Corridor, only.

Managed Lanes' Likely Impact on Travel Behavior

Mr. Baza believes the existence of managed lanes will encourage people to pay to drive alone. "The corridor is ripe for pay-to-go."

Effectiveness in Moving People

Managed lanes are "not necessarily" better at moving people than regular carpool lanes, but they are more effective than general purpose lanes.

Environmental Issues

There are issues with the lagoon crossings. Caltrans also will be looking at more sensitive landscaping and moving away from oleanders and non-native invasive species, which are maintenance headaches anyway. Other environmental issues will be noise and view shed impacts.

Safety, Enforcement, and Related Operational Issues

Mr. Baza believes that while some kind of traffic violation should certainly apply to managed lane violators, he's not sure whether an additional pricing penalty also should be applied.

Operational Suggestions

BRT and DARs need to be located in order to serve major attractors and employment patterns. There also is a great opportunity for joint development and transit-oriented design at the DARs. Finally, transit feeder service needs to serve both the DARs and the destinations.

Pros

None identified.



Project Concerns and Challenges

The biggest planning concern for Caltrans District 11 is that they must decide whether to build a 10+4 or 8+4 (main lane + HOV lane) facility. Right-of-way constraints are an issue, and even with the smaller footprint, there may be some new property takes required.

From a project development standpoint, Caltrans' biggest challenge is the staging. The sheer physical problem of constructing the lanes is daunting. Where possible, Caltrans must look at stand-alone auxiliary lane projects and pursue those, because every inch of capacity will be needed to manage the traffic during construction. Once the I-5/I-805 interchange is completed, there will be new bottlenecks, and all operational improvements or capacity enhancements will have to be explored while the region undergoes the long planning and environmental process. Caltrans has to look at defining logical segments, and educating the public about its decisions, to show the public that Caltrans is going the extra mile to accomplish the corridor improvements as fast and cost-effectively as possible.

Environmental Justice Issues

Equity

Mr. Baza is a firm believer that Caltrans and other stakeholder agencies need to get out into the community and get input. Certain communities are good at getting heard, but Caltrans needs to hear from all of them.

Perceptions of Fairness

The issue is primarily affordability, which is related most strongly to income. The main lane users are likely to have some resentment, and perceive the managed lanes as "Lexus Lanes" for the rich folks, but the corridor has a lot of educated people who realize that capacity is freed up for the general purpose lanes. HOV lane users will be fine with the lanes as long as the facility moves; if it every shuts down, they'll resent it. Transit riders will like the BRT. Truckers will probably not want to use the lanes. Interregional and San Diego commuters will probably split along the same lines as main lane users in general—some will see that the capacity helps the main lanes.

Other Public Input

Underrepresented Groups

Mr. Baza is not familiar enough with the corridor to identify specific groups, but in general, the less affluent have a harder time getting heard.

Likely Sources of Project Support and Opposition

Not sure.

Proposed Survey Question

Any information is good.



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Gonzalo Lopez, Director of Marketing and Community Relations, Metropolitan Transit System (MTS)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	December 3, 2004

MTS’s Role in Project Planning or Implementation

MTS doesn’t have an official role, but will participate in an advisory capacity, with SANDAG serving as the long-range planning lead agency.

Perception of Existing and Future Corridor Mobility Conditions

Mr. Lopez describes traffic as catastrophic, and notes that it gives him a headache. People get stressed when they are trapped—they become desperate in the peak hours, from 2:00 p.m. on, especially from La Jolla to Chula Vista in the south.

Mr. Lopez works with the Hispanic Chamber of Commerce, in his position at MTS, and he hears that people want more access, and more frequent bus service. Getting to work is very important, and people support transportation, as is apparent by recent public support for *TransNet*. Both anecdotal evidence and research shows that people don’t mind some tax increase if social services and transit service increase as well.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Lopez knows about the I-15 FasTrak lanes, but has not used them frequently.

Efficiency

The official MTS position is that the lanes do provide an efficient mobility option. Mr. Lopez feels neutral about it, personally, and needs more information. He observes that people’s actual experience with the lanes is sometimes problematic, and they are expensive.

Fairness

It’s somewhat pricey for many, says Mr. Lopez, and while it’s easy for a middle class person to say that’s all right, it’s a bigger burden on lower income people. Market pricing excludes a lot of people.

Applicability to I-5 Corridor

Mr. Lopez agrees with pricing as a rational mechanism, and thinks it’s fair as long as there are alternatives.



Project Concept & Operations Pros and Cons

Current Community Issues

There is some community concern about the location of stations and ingress/egress. Mr. Lopez understands that there has been a lot of public input into those decisions. What people want is a predictable and trustworthy transportation network.

Priorities for Use of Managed Lanes

Vehicles should be accorded priority based on occupancy, from highest to lowest. Trucks could possibly use the lanes off-peak. Emergency vehicles should be allowed at no toll, but not hybrids. Mr. Lopez feels hybrids are expensive and giving them priority would be elitist.

Managing Demand: Access vs. Tolls

Mr. Lopez thinks a combination of physical access and tolls makes sense. It is easily managed and gives people more options. If people need to get on, they can pay, if not, they can wait five minutes for the lanes to open at a lower cost, or no cost. Good signage would be necessary if physical access were to be opened and closed to manage demand.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Enforcement problems occur with painted barriers. Concrete barriers are preferable for safety reasons, as well.

Number of Access Points

If the lanes are to operate as express lanes, then by definition the fewer entrances the better. But there should be good directions on how to get to major destinations. And with fewer access points, they might themselves become congested or create merge-related bottlenecks. There's a technical tradeoff between dispersing access over more entrances/exits and maintaining the flow of both managed lanes and main lanes.

Operating the Lanes: Ingress/Egress Priority

Mr. Lopez favors providing ingress and egress (merge) priority to public transit, to help it be more competitive. Every possible operational feature that can give preference to the bus should be included in the facility design.

Signage and Toll Information

People need enough advance warning, and that can't be done "on the cheap." It also requires good customer information and adequate radio and web information as well.



Importance of Modal Choice on the I-5 Corridor

It is important to have choice, because that's the way to attract people. Our culture demands that people have choices.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Lopez says that, though \$6 a ride may be worth it to him, that's \$120 per month on a daily basis. So, if there were a public transportation alternative, he'd use that. He imagines that this is a rational decision many people would make.

Use of Toll Revenue

Transit would be a priority for MTS, along with transportation improvements, better information within that corridor, or even environmental purposes.

Managed Lanes' Likely Impact on Travel Behavior

People might choose to remain as solo drivers, and pay a fee. If so, the public transit system has to be very competitive with solo driving. People value relaxation, so that angle of public transit could be promoted.

Effectiveness in Moving People

Mr. Lopez believes that the managed lanes will move more people than either regular HOV lanes or main lanes.

Environmental Issues

Emissions might be reduced with managed lanes, and quality of life might improve. Environmental mitigations of the freeway widening could be undertaken using toll revenue.

Safety, Enforcement, and Related Operational Issues

Mr. Lopez advises facility planners to remember that people make mistakes when rules are complicated, so it's necessary to simplify the message.

Operational Suggestions

None identified.

Pros

It provides a new option, and another potential solution for a crowded corridor.

Project Concerns and Challenges

MTS wants to make sure that buses can travel uninterrupted, so that gives people a real alternative, saving both time and money over driving solo.



Environmental Justice Issues

Equity

The market serves a purpose in many ways, so the price will have to be enough to be an effective rationing mechanism, but not so high as to exclude people altogether. If it's expensive enough to drive solo, and quality transit is available as an alternative, people will use it, and that's a mitigation.

Perceptions of Fairness

People do what they need to do. Lower income people will mostly avoid using the lanes—especially because low income people in this area is really low income: \$20 thousand for a family of four. The only major ethnic group in the project area that's significant in size is Hispanic. Income, not ethnicity, is what impacts them.

If I-5 main lane users feel they can pay to access the lanes, but simply choose not to, they will feel they have control over the decision. HOV users should be fine with managed lanes as long as their speeds are maintained. And if transit riders have a good BRT system, they will have more than they have now. However, BRT poses its own set of equity implications. Truckers should enjoy fewer cars on the lanes they use. Local San Diegans can find alternatives to the freeway entirely.

Other Public Input

Underrepresented Groups

None identified.

Likely Sources of Project Support and Opposition

People likely to use BRT will probably support the lanes. There will probably be more support than opposition, since people want solutions right now.

Proposed Survey Question

"How would this improve your life? Do you want this, and why?"



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Captain David Webb Lt. Rich Rennie California Highway Patrol (CHP, Oceanside Area)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 12, 2004

CHP's Role in Project Planning or Implementation

The CHP will play an enforcement role in the project when it's implemented. CHP also works with Caltrans during planning and construction phases on issues including safety, pullout areas and enforcement areas. The CHP has a minimum of annual meetings with Caltrans, and has a number of avenues of communication through which it makes freeway-related concerns known.

Perception of Existing and Future Corridor Mobility Conditions

Congestion is a daily occurrence, during morning and evening commute periods, and also throughout the weekend. Traffic has deteriorated noticeably over the past five years, and by noon, it's stop-and-go from Oceanside south. On the weekend, southbound lanes are severely congested. This means more frustrated drivers and more accidents. The CHP needs visibility to help its enforcement mission, but congestion means the CHP vehicles have difficulty covering territory. In addition, it becomes more difficult to pull people over for violations when congestion is already bad, and will become worse as people slow down for the enforcement activity on the shoulder.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Both Lt. Rennie and Captain Webb are familiar with the I-15 FasTrak managed lanes, and Captain Webb has used them a few times, as a carpooler.

Efficiency

Both officers feel the lanes are obviously more efficient than the main lanes.

Fairness

Lt. Rennie believes the FasTrak lanes are fair, in the sense that they give people an option they can pay for to get the additional convenience.



Applicability to I-5 Corridor

The CHP is neutral on this issue, and leaves it as a technical issue in the realm of Caltrans engineers and SANDAG.

Project Concept & Operations Pros and Cons

Current Community Issues

The main issue identified by CHP related to the low income military families at and near Camp Pendleton.

Priorities for Use of Managed Lanes

Highest priority should go to high-occupancy vehicles—transit buses, vanpoolers, and carpoolers. Only two-axle trucks should be allowed. Clean air vehicles should be a higher priority than solo-drivers. Emergency vehicles should be permitted at no toll.

Managing Demand: Access vs. Tolls

Lt. Rennie suggests that physically limiting access is better than using tolls to keep the managed lanes uncongested, because it avoids the equity issue. However, it complicates enforcement and may result in a confusing array of choices for people as they're driving. People get confused very easily. If a physical approach to lane management is taken, Caltrans will have to give plenty of warning to people, for example, "Managed Lanes closed 8 miles ahead."

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

There are few long stretches on the alignment, and with soft barriers, Caltrans will need to post where people can get in and out. An advantage to having soft barrier is that sometimes you're in stopped traffic and people next to you are moving faster, so you would want the most flexibility. However, the flexibility is a tradeoff against safety. Additionally, replacing the attenuators is expensive. One solution could be creating several breaks in hard barriers to clear accidents. CHP warns that if the lanes are configured with hard barriers on each side, then a center shoulder will be absolutely essential.

Number of Access Points

Access about every four to seven miles seems adequate.

Operating the Lanes: Ingress/Egress Priority

CHP officers suggest that anyone entitled to use the managed lanes should be able to access the lanes at all points. Allowing priority to some users for merging back into the main lanes might be confusing, and the officers don't see how it could be accomplished.

Signage and Toll Information

The I-15 FasTrak lanes seem to be well-signed. Since the I-5 Corridor will offer drivers more ingress/egress options, Caltrans will have to pay special attention to giving people clear and sufficient notice. Additionally, and educational campaign will be required.



Importance of Modal Choice on the I-5 Corridor

Though pricing of the carpool lanes somehow is in some ways objectionable, the option should be available. More frequent and convenient transit also is needed on this corridor.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Both officers believe that the toll would be “well worth it.” Some would be able to afford this more often than others, however.

Use of Toll Revenue

CHP will receive additional Caltrans monies to pay for extra enforcement associated with the managed lanes. The officers suggest that toll revenues be used for highway maintenance within the I-5 Corridor.

Managed Lanes’ Likely Impact on Travel Behavior

Lt. Rennie admits that, though he has reservations about the lanes, he would probably use them (as a civilian motorist) when the freeway was congested. The CHP officers believe there is high potential for increasing transit and carpooling on the I-5 Corridor, because congestion is so bad. But some drivers will not be able to carpool, or will choose not to, and will opt to avail themselves of the pricing option.

Effectiveness in Moving People

The officers believe that the managed lanes will be more effective in moving people than both regular HOV lanes and general purpose lanes.

Environmental Issues

This is not an issue for CHP.

Safety, Enforcement, and Related Operational Issues

CHP recommends that enforcement and breakdown areas be located to the left of the managed lanes. Caltrans might also want to look at photo enforcement.

With respect to how to penalize scofflaws in the managed lanes, CHP doesn’t want to “double-ding” people for violations of the lanes, and so either toll-related fines or traffic tickets (HOV lane violations) should apply, but not both.

Operational Suggestions

There should be a direct access ramp onto the managed lanes at SR 78. For other operational suggestions, see answers to Safety, Enforcement, and Related Operational Issues and Signage and Toll Information.

Pros

The lanes can manage demand effectively.



Project Concerns and Challenges

One of the problems is that the general public believes that an extra lane would cure all the problems, though it wouldn't. Other concerns relate to the overall problems of how to enforce the lanes safely and effectively. CHP sees a big educational need, to avoid potential public confusion about the lanes.

Environmental Justice Issues

Equity

Although everyone's time is valuable to them, certain segments of the population will not be able to afford the tolls, or will not be able to use them often. Mitigating this, however, is the fact that mobility management reduces pollution. So, if the goal is efficient demand management, then Caltrans has to opt to permit the buy-in.

Perceptions of Fairness

The CHP officers believe that equity issues will be perceived by people as an income-related, rather than an ethnicity-related issue, though there is a relationship between ethnicity and income in the U.S.

I-5 main lane users will include some percentage of people who will be vocal in opposition to the lanes. These are folks who feel they pay their gas tax, and so shouldn't have to pay to use any road. Most people will see that the managed lanes offer a choice similar to flying tourist vs. first class. Though some HOV lane users some will resent that the toll-payers are not taking the time and effort to carpool, their resentment should be allayed by the fact that they don't have to pay. A similar reaction might come from transit riders.

Some differences in perception of equity might come from differences in familiarity with the concept or operation of managed lanes. Thus, Orange County travelers who are very familiar with value pricing, will understand the lanes and have no problem with them. Others less familiar with how they work may have more objections. These could include tourists, and even truckers traveling to or from the San Diego port area. Truckers should generally be happy to get more four-wheelers out of their way. Their biggest concern will be the numbers of weaving points. They already tend to drive in the number three lane rather than the number four lane, to avoid merging traffic.

Other Public Input

Underrepresented Groups

CHP recommended including the Coastal Commission, the lagoon conservancy organizations, and the Surfriders' Foundation.

Likely Sources of Project Support and Opposition

Support will likely come from the chambers of commerce, tourism interests, city councils, the Southern California Auto Club, and "big-time users" of the freeway. Support will also come from the general public, and those who are happy with HOV lanes.



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Robert A. Leiter, AICP, Department Director of Land Use and Transportation Planning San Diego Association of Governments (SANDAG)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 19, 2004

SANDAG’s Role in Project Planning or Implementation

SANDAG is the lead planning agency involved in planning the I-5 managed lanes, as well as the larger corridor widening project. Mr. Leiter’s department is focused solely on the value pricing study.

Perception of Existing and Future Corridor Mobility Conditions

Although Mr. Leiter lives along the I-15 Corridor, he is aware of heavy congestion on the I-5 Corridor. SANDAG is concerned about the ability to reach destinations without a lot of congestion delays. Goods movement is another important aspect of the mobility issues on I-5.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Leiter uses the I-15 managed lanes with a transponder on an occasional basis. He lives one interchange south of the north end of the facility, and the only time he uses them is if the main lanes are severely congested, or if he’s going to Escondido, and not home, first (in the evening peak). Also, on a Friday evening, he might pay the “kind of expensive” toll of four or five dollars for eight miles.

Efficiency

Mr. Leiter does not think the lanes are as efficient as they could be, but they still provide a good mobility option. His concern is that the pricing sometimes appears to be badly applied. For example, the tolls are only two or three dollars when the managed lanes are already backing up. Also, there have been issues with faulty transponders and slip ramp construction impacts.

Fairness

If fairness means that people pay a price based on managing the lanes—not social equity, but for the value received, then managed lanes are fair. The whole concept is to use tolls to maintain flow, and then to allocate the net toll revenue to provide transit.

Applicability to I-5 Corridor

Mr. Leiter supports a value pricing application on I-5



Project Concept & Operations Pros and Cons

Current Community Issues

Mr. Leiter is not aware of any special issues that might affect the project.

Priorities for Use of Managed Lanes

Priority should start with the highest-occupancy vehicles and move down to SOVs. Off-peak truck utilization of the lanes should be considered. Mr. Leiter does not support allowing clean air vehicles to use the lanes at no fee, though emergency vehicles certainly should be permitted. It is also worth considering priority for disabled people.

Managing Demand: Access vs. Tolls

Demand should be managed primarily, if not solely, though the variation in tolls. This should suffice.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Mr. Leiter likes physical barriers to control access to the lanes. Also, with potential electronic guidance systems that BRT may use in the future, it's not a good idea to have people ducking in and out of the managed lanes.

Number of Access Points

Although this is in the project planning and engineering arena, Mr. Leiter thinks direct access ramps (DARs) should be located about every three miles, as studies suggest, and slip ramps located where they make sense, and don't create congestion. He is concerned that planners are counting on using El Camino Real for bus rapid transit, but that the North County cities have not approved the configurations necessary to make that alternative effective. Thus, he wants to ensure that the design doesn't preclude the possibility of using managed lanes north of Manchester for bus rapid transit, because it might not be possible to use El Camino Real effectively for that purpose.

Operating the Lanes: Ingress/Egress Priority

Mr. Leiter does not see the need for prioritizing access by user type. If the value pricing can't keep the lanes clear at high tolls, then the carpool eligibility for carpools will have to be raised to three people per vehicle. This is preferable to closing access physically.

If possible, merging back into the main lanes should give priority to buses first, then HOV, then SOV. It may not be necessary to separate them, though, and it might be harder for enforcement if they were separated. On I-15 there's no choice at the merge, and that works well.

Signage and Toll Information

I-15 signage seems to be effective. The point is to give people sufficient warning and some public education. The Orange County toll roads seem to be a little more user-friendly—they provide more information that is somewhat better explained.



Importance of Modal Choice on the I-5 Corridor

It's important to give people choices that help them choose transit or other HOV modes.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Under the right circumstances, Mr. Leiter would pay this amount.

Use of Toll Revenue

Toll revenue should support new transit in the I-5 Corridor, or possibly vanpool or carpool transportation demand management support programs.

Managed Lanes' Likely Impact on Travel Behavior

Mr. Leiter thinks transit ridership could improve because the managed lanes facility will provide opportunities for shorter trip times using transit. If transit can give people a travel experience that compares favorably to driving alone, people will choose transit. The improvement of the HOV system under the proposal will also encourage carpools.

Effectiveness in Moving People

Managed lanes with value pricing would move more people than either regular carpool lanes or general purpose lanes.

Environmental Issues

SANDAG can have a positive environmental effect by encouraging smart growth at BRT/DAR locations. The agency has a plan for shuttle networks, and possibly arterial BRT that brings people into the system and provides door-to-door service—better than light rail. Places like Eastern Chula Vista would have been harder to serve by light rail, for example.

Safety, Enforcement, and Related Operational Issues

Violators should receive a traffic ticket, not a pricing penalty.

Operational Suggestions

Mr. Leiter is confident that agency staff will develop a safe and effective facility.

He also notes, however, that the Regional Comprehensive Plan (RCP) is designed to connect land use plans to transportation plans, and the region is putting a lot of emphasis on smart growth. Thus, instead of closing access to manage demand, the region should plan on giving more and more lane capacity to buses as congestion increases over time. Since interregional travelers may also be attracted to BRT the region needs to preserve capacity for that. Coming technological advances could likely improve BRT's advantages over SOVs in the future.

Pros

Managed lanes will provide an effective means of adding transportation capacity and maximizing the use of transportation facilities.



Project Concerns and Challenges

The largest concern is that because people don't understand how the lanes work, or what their purpose is, they perceive them to be unfair. This implies an education and outreach challenge for SANDAG.

Environmental Justice Issues

Equity

The issue of equity must be evaluated and understood. But Mr. Leiter suggests that when trying to make a transportation system work efficiently, and in considering a number of community goals, such as air quality and addressing low income mobility needs, overloading the transportation system and disrupting the market you are trying to create to manage demand might be self-defeating. Social equity might better be addressed through other programs, such as emergency vouchers.

Perceptions of Fairness

Mr. Leiter referred to a low income participant in a recent focus group on the I-5 managed lanes, a man who had said he'd use the lanes as a carpooler. Mr. Leiter feels that as long as people know they can use the system, and the equity issues are being dealt with, they'll be okay with the concept. That makes another education and outreach issues.

I-5 main lane users may be pleased if other drivers leave the main lanes less congested by using the managed lanes. HOV and transit riders will be happy with better operations along the corridor. Interregional travelers from Orange County and Mexico will understand the operation of the lanes, because they are familiar with tolling, and so probably won't object to them. To the extent that the managed lanes improve system flow, they wouldn't have a problem with them, and it's possible they might enjoy off-peak access to the lanes, though Mr. Leiter is not sure this is accurate.

Other Public Input

Underrepresented Groups

No groups identified. Mr. Leiter observes that I-5 travelers are fairly heterogeneous and very vocal.

Likely Sources of Project Support and Opposition

Support will come from educated commuters and users who would understand and like the managed lanes facility. Conservative people who think they should be able to drive anywhere at any time, at any speed, may object to managed lanes. In general, people on the I-5 Corridor are probably more sophisticated and willing to consider new ways of doing things, and the lanes probably have a greater chance of support there.

Proposed Survey Question

"Would you be more likely to use Bus Rapid Transit along this corridor if you lived within walking distance to a station? What is the likelihood that you would also be willing to drive to a park and ride lot at one of the new direct access ramps, or join a carpool, to reduce 24 minutes for a peak hour trip?"



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Louis Martinez, Treasurer Hispano-Americans for Progress (HAP), and Traffic Commissioner, City of Vista
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 22, 2004

HAP’s Role in Project Planning or Implementation

Mr. Martinez has been in a leadership school sponsored by SANDAG, and has attended North County Transit District (NCTD) meetings and has been asked to participate in an organization involved in promoting NCTD. He is familiar with SANDAG and its structure.

Perception of Existing and Future Corridor Mobility Conditions

Traffic is “horrendous. Something to be avoided.” Mr. Martinez says I-5 is in almost constant overflow, and that he personally avoids going to San Diego as much as possible. When he does, he tries to travel after 9:30 a.m. and return to Vista before 3:00 p.m.

The issues of concern for HAP members include the ability of working people to access downtown, parking costs, and access to work locations that are not downtown-focused.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Martinez is familiar with the I-15 Express Lanes, and before his recent retirement, he traveled on the main lanes three to four times per week, and looked with some amount of envy at those on the managed lanes. Now, he is able to use the lanes as a carpooler when traveling with his wife.

Efficiency

Mr. Martinez thinks the I-15 managed lanes are efficient, and he would have used them if he could have.

Fairness

The lanes are fair because there’s no overcrowding, and they ensure that it works for the carpoolers while getting solo drivers to help pay for the roads.

Applicability to I-5 Corridor

Mr. Martinez would support applying an I-15 managed lane concept to the I-5 Corridor.



Project Concept & Operations Pros and Cons

Current Community Issues

The community is basically interested in widening the freeway.

Priorities for Use of Managed Lanes

Priority should be accorded to users based on highest occupancy of the vehicle to lowest. Mr. Martinez would need to see how truck use of the lanes would work. “Trucks are heavy, though they do pay taxes,” he observes. Emergency vehicles should be allowed to use the lanes at no toll, but Mr. Martinez is less sure about permitting clean air vehicles the same privilege.

Managing Demand: Access vs. Tolls

Closed access would result in some irate citizens, says Mr. Martinez. It is preferable to let the market do the job.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Mr. Martinez would rather have some sort of physical barrier—even if it were just k-rail.

Number of Access Points

Access should not be available at every on-ramp. A four to seven mile interval is adequate.

Operating the Lanes: Ingress/Egress Priority

On-ramps should be open to all eligible facility users. He would support providing a longer merge back into main lanes for transit buses.

Signage and Toll Information

Signage on the I-15 FasTrak is very effective—Caltrans does a good job with signage in general.

Importance of Modal Choice on the I-5 Corridor

It's very important to provide choice for people.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Martinez would be willing to pay \$6 to save 24 minutes, rather than being stuck for 20 minutes in 12 mile per hour traffic. His time is valuable, and managed lanes are less stressful travel option. He believes other Hispanic-Americans would feel that way as well.

Use of Toll Revenue

Toll revenue should go to support new transit in the I-5 Corridor, and for highway maintenance within San Diego County.



Managed Lanes’ Likely Impact on Travel Behavior

Mr. Martinez believes both carpools and solo drivers who can afford it will use the proposed managed lanes. “Just open them—they will be used!”

Effectiveness in Moving People

Managed lanes will not move as many people as regular carpool lanes, but will move more people than main lanes.

Environmental Issues

HAP would have no environmental concerns, beyond those impacts related to the addition of new concrete that is part of the expanded footprint of the roadbed.

Safety, Enforcement, and Related Operational Issues

Leave these issues to Caltrans engineers.

Operational Suggestions

Mr. Martinez would like Caltrans to provide connections at SR 78 and Palomar Road onto the managed lanes. He notes a 5000-unit residential development near Palomar Road, known as Leo Carrillo Ranch, which will generate a lot of trips.

Pros

The managed lanes will offer people in Vista another way to get downtown.

Project Concerns and Challenges

None identified.

Environmental Justice Issues

Equity

No equity issues, as long as it’s an additional option to pay tolls, and carpools/transit remain free.

Perceptions of Fairness

Mr. Martinez thinks all groups will adjust quickly to the managed lanes if they were built.

Other Public Input

Underrepresented Groups

Mr. Martinez notes that everyone in Vista gets heard, since it’s such a small town with plenty of access to elected officials.

Likely Sources of Project Support and Opposition

Some people are simply opposed to mass transit. Everyone would support the managed lanes as long as they don’t take private property or beach property.



Proposed Survey Question

“Would creation of a Citizen’s Oversight Committee increase your support for the managed lanes?”



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Mr. Reginald Owens, First Vice President Mr. Warner Davis, Second Vice President North San Diego County Branch, National Association for the Advancement of Colored People (NAACP)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 15, 2004

NAACP’s Role in Project Planning or Implementation

The North San Diego Branch of the NAACP is not involved with Caltrans—not because its members are not concerned with transportation issues, but because they’re primarily a civil rights organization. The members are concerned about affordability and who will be able to benefit from the lanes.

Perception of Existing and Future Corridor Mobility Conditions

Both Mr. Owens and Mr. Davis noted that congestion going south is, indeed “going south: from bad to horrible.” They note that the I-5 used to get more congested farther south of Oceanside, near Via de la Valle. Now the backup starts as far north as Carlsbad and is progressively getting worse. Nor does time of day seem to matter too much. Even northbound traffic is congested.

NAACP members are concerned about accessibility to and from the freeways and the travel delays and traffic on the freeways. Surface streets are often no better, however. A six-mile trip from Carlsbad to Oceanside on El Camino Real can take 45 minutes. Mr. Owens thinks public transportation, though it exists, is not convenient. The train is adequate, and Mr. Warner uses the train almost exclusively to go to downtown San Diego.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Warner is not familiar with the lanes, though Mr. Owens is somewhat familiar with them. Neither has used them, and don’t have transponders.

Efficiency

Theoretically, the lanes are efficient, but, again, neither Mr. Owens nor Mr. Davis has direct experience to that effect. They express concern that the lanes simply dump vehicles back into clogged lanes, and they ask, “How much time do you really save?”



Fairness

Mr. Owens and Davis believe the lanes are fair, because they provide an additional option, and carpoolers, vanpoolers, and transit riders still use the managed lanes at no cost.

Applicability to I-5 Corridor

Because even the HOV lanes can become congested, the NAACP representatives would favor a pricing approach if it kept traffic moving.

Project Concept & Operations Pros and Cons

Current Community Issues

The travel-inducing aspect of the managed lanes (as well as the widening itself) could impact corridor cities' attempts to retain "small town" quality of life and image.

Priorities for Use of Managed Lanes

Generally, higher occupancy vehicles should receive priority. Trucks are dangerous—leave them on the outside lanes of the main freeway, where they travel at safer speeds. They also have to be weighed, and they're subject to some restrictions that smaller vehicles aren't. While emergency vehicles should absolutely be allowed to use the lanes at no toll, there is no logic in allowing clean air vehicles to do so: people are already buying them in ever greater numbers, and it's a confusing policy for people to understand.

Managing Demand: Access vs. Tolls

Although using tolls to control demand has advantages, the first option should be to use physical access strategies, as long as there is adequate signage. A combination of these tools, depending on the flow of traffic, should be used.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

A physical barrier is preferable. If people are given an option to take advantage of the lanes, they will. Movable barriers might make more sense in terms of long-range strategic transportation planning.

Number of Access Points

Add slip ramps at those points where congestion occurs on a regular basis, as long as the merge and weave movements don't make congestion worse.

Operating the Lanes: Ingress/Egress Priority

All access points should be available to all eligible users of the managed lanes.

Signage and Toll Information

Mr. Owens and Mr. Davis both would like to see better signage on the I-15 FasTrak. The existing signage is confusing, and they guess that many people would fear getting

on the lanes accidentally, unaware of the current toll. They would like to see SANDAG or Caltrans do better marketing for the existing as well as any future lanes planned for the I-5 Corridor. If a combination of physical access restrictions and tolling is used to manage demand, good signage becomes even more important.

Importance of Modal Choice on the I-5 Corridor

On a scale of one to ten, modal choice is a “ten.” The region must develop a range of options that accommodate the range of incomes of the population along the corridor, and those using the corridor.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

People would use the lanes at this price, especially those who had a special need on a given day.

Use of Toll Revenue

Don't send the revenues to the general fund! Net revenues should be dedicated to the upgrading of the transportation system in the I-5 Corridor first, but if the need is not there, some flexibility should be permitted so that adjacent areas could receive the funds. Revenues could also be used to expand or extend the managed lanes, if they prove to be effective.

Managed Lanes' Likely Impact on Travel Behavior

Both Mr. Owens and Mr. Davis agree that they would use the managed lanes. Mr. Davis, speaking as a senior citizen, favors public transportation, and believes greater use of transit would reduce accidents and congestion. But he doesn't think the pricing would encourage transit due to the lack of connections at origins and destinations. Further, carpooling might not be increased because people tend to value the time alone in their cars, and if they can pay to travel faster, they'll take that option.

Effectiveness in Moving People

Mr. Owens and Mr. Davis believe that managed lanes will move more people, lane for lane, than either carpool or general purpose lanes.

Environmental Issues

The NAACP is concerned about such issues as locating waste dumps near poor populations, which doesn't really apply to the managed lanes concept. However, the organization would support development of the lanes in harmony with environmentally sound principals.

Safety, Enforcement, and Related Operational Issues

A painted barrier scenario results in enforcement problems. Mr. Owens notes that he has seen solo drivers swerve into the HOV lanes and get away with it. Merging traffic, weaving and the bottlenecks created represent another set of problems that are of concern.



Operational Suggestions

Caltrans should consider direct connectors with SR 78 and SR 76.

Improving the HOV and transit network, facilities and services is essential if people are really going to start using these alternatives.

Caltrans needs to keep in mind the problems that are beyond the I-5 Corridor that nonetheless affect operations within the I-5 project area.

Pros

The fact that the managed lanes may preserve a future transit corridor is one advantage of the project. The benefits of managed lanes, as opposed to a “no project” alternative seem to outweigh the disadvantages. The new capacity would also lessen the burden on the main lanes.

Project Concerns and Challenges

The approach should be to look at who’s going to use it, and of course if we’re talking about moving people vs. vehicles, that population that will be middle- to low income. To preserve their mobility through maintaining free carpool access is a priority.

Environmental Justice Issues

Equity

Both Mr. Davis and Mr. Owens view the equity issue as a matter of income, or class, rather than ethnicity. Affordability is the issue, although the logic of charging to keep the lanes free-flowing makes sense. If the lanes are still free to high-occupancy vehicles, then charging for solo drivers is not a problem.

Perceptions of Fairness

It is unlikely that perceptions of low income groups will be any different than those main lane users who look over at the HOV lanes. If it saves people time, then even if you’re poor, it just costs you some planning to be able to use the lanes as a carpooler. Carpoolers and transit riders should be pleased with the managed lanes.

Other Public Input

Underrepresented Groups

The fastest-growing population is the Mexican-American population, so they need to be approached. The Samoan population and the inland Native American populations should also be considered.

Likely Sources of Project Support and Opposition

Opposition might come from taxpayers if SANDAG has to pass a bond. The pricing concept has to be the focus of more outreach and education in order to familiarize a variety of populations about it before it gets off the ground.

Proposed Survey Question

“Why are you opposed to carpooling?”



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Grace Roos, League of Women Voters
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	December 14, 2004

League of Women Voters' Role in Project Planning or Implementation

No comment provided.

Perception of Existing and Future Corridor Mobility Conditions

Ms. Roos describes I-5 conditions during commute time, as “very, very bad.” One of the League of Women Voters (League) concerns is overloaded trucks, causing cars to constantly swerve in and out of lanes. Another concern is that when Caltrans establishes temporary construction lanes, the entrance and exit angles are too sharp for vehicles to negotiate safely.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Ms. Roos is very familiar with I-15 FasTrak, but doesn't use them because of the limited access.

Efficiency

Ms. Roos does think that the FasTrak lanes provide an efficient mobility option for travelers.

Fairness

Ms. Roos believes the managed lanes on I-15 are fair because as more carpoolers use the lanes, the tolls serve to cut back the numbers on solo-driving toll payers. For Ms. Roos, fairness “means that those people who are willing to carpool, it encourages them.

Applicability to I-5 Corridor

Ms. Roos gives only “reluctant support” to a pricing application along the I-5 corridor. The League's position strongly supports carpooling as a method of reducing congestion. The League's hesitant support comes only if the same priority for HOVs are set in place along the I-5 as exists on the I-15.



Project Concept & Operations Pros and Cons

Current Community Issues

The main concerns that the League sees are the wider range of environmental problems associated with the expansion of the roadway, rather than the pricing per se.

Priorities for Use of Managed Lanes

The League would place priority on the highest occupancy vehicles first, and allow solo drivers to buy into the lanes only if there were excess capacity. Trucks should not be allowed. Ms. Roos favors allowing toll-free access for both emergency and clean air vehicles.

Managing Demand: Access vs. Tolls

Ms. Roos favors a combination of limiting physical access and tolls to manage demand on the managed lane facility.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Ms. Roos is concerned that the physical barrier may be necessary for a priced facility, but that a pure HOV lane would be more accessible with painted barriers. This easier access would also allow for more dispersed merging areas, says Ms. Roos. But, with a tolled facility, Mr. Roos believes a concrete barrier is needed because, she says, “There are some people who would innocently sneak into the HOV lanes if they unconsciously see space. This is a problem only with pricing. With no pricing a painted barrier is preferable.”

Number of Access Points

Since it’s a managed lane, rather than a pure HOV lane, Ms. Roos sees the need to have controlled access. She would like to see a combination of slip lanes and direct access ramps to accommodate new growth. Caltrans and SANDAG should know where current need exists, or where proposed new development is planned.

Operating the Lanes: Ingress/Egress Priority

Mr. Roos doesn’t see how access could be very easily limited to allow only certain users (e.g., giving transit buses access, but forbidding others). Given that it’s a managed lane, she prefers using the toll to control access.

To keep the lanes free-flowing, Ms. Roos would rather have pricing go up than close the lanes because the goal is to permit as many HOVs on the lanes as possible. However, if the managed lanes overload even at the highest toll permitted, Ms. Roos believes Caltrans could provide adequate signage to exclude SOVs until the lanes are uncongested.

Ms. Roos suggests a metered off-ramp approach to give preferential treatment to transit and HOVs as they merge back into the main lanes. The concept would be similar to Caltrans’ treatment of metered on-ramps, which give priority to HOVs.



Signage and Toll Information

As Ms. Roos travels on the I-15 main lanes and observes the I-15 toll information, it seems adequate to her, and would seem to be a model of efficient signing that Caltrans should imitate on I-5. The goal is to provide drivers with sufficient warning to make their travel decision.

Importance of Modal Choice on the I-5 Corridor

People have to have options. There are people who because of age or disability cannot drive, and they need transit.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Ms. Roos believes the toll discriminates against middle- and low income solo drivers. However, it may encourage carpooling among those groups. Ms. Roos warns that it doesn't encourage carpooling among high-wage earners.

Use of Toll Revenue

According to the League, support for *new* transit in the I-5 corridor is the only supportable use of toll revenue. A slight exception might be made for a small amount of *additional* carpool program support (i.e., not replacement of existing funding).

Managed Lanes' Likely Impact on Travel Behavior

If Ms. Roos traveled the I-5 corridor, she would use the managed lanes as a carpooler. Although Ms. Roos recognizes that the habits of commuters are not easily changed, she believes many other corridor users will make that decision, as well, based on the popularity of the Coaster. She notes that when League members from Carlsbad and Oceanside come south for a meeting, they use the Coaster whenever possible. People are looking for convenient alternatives to the solo-occupancy vehicle.

Effectiveness in Moving People

Perceived effectiveness—do you think the Managed Lanes will move more people than regular carpool lanes? Ms. Roos is not sure whether, in the absence of tolled SOVs, the capacity would be filled with more carpoolers. However, the managed lanes will move more people than main lanes.

Environmental Issues

None identified with the managed lanes themselves.

Safety, Enforcement, and Related Operational Issues

Mr. Roos is not concerned about a possible “double-dinging” of solo-driver scofflaws who violate the rules of the managed lanes—that is, they could receive both a toll penalty and a traffic ticket.

She does see some potential safety and enforcement problems associated with a painted barrier scenario.



Operational Suggestions

The League would support having barrier-separated outside auxiliary lanes that would facilitate shorter trips and keep people off the main freeway lanes.

Pros

None identified.

Project Concerns and Challenges

The League's main concern is that the pricing component could discourage carpooling.

Environmental Justice Issues

Equity

Ms. Roos is somewhat ambivalent about the equity issue. The tolls obviously give preference to those who can afford it easily, so equity is a problem. She would like to see more people using transit anyway, so providing a subsidy to transit riders in that corridor could mitigate equity concerns.

Perceptions of Fairness

Ms. Roos believes that low income people have so many larger problems facing them that they may not register the managed lanes as an additional equity concern. And, she adds, they do have the option of carpooling or taking a bus. She believes the equity issue is related more to income than ethnicity, and notes that some ethnic minorities are relatively affluent.

User groups will experience the lanes differently. Ms. Roos states that, "I-15 main lane users' letters to the editor indicate that they feel that there's space there, and that even HOV lanes should be converted to general purpose lanes." She doesn't think carpoolers would object, as long as their use of the lanes is protected. Transit riders would experience no impact, says Ms. Roos. Interregional users may not have transponders, so they may feel that's inconvenient. Although truckers' time is very important, Ms. Roos doesn't want to see large trucks on the lanes, because they are often overloaded and subject to breakdowns.

Other Public Input

Underrepresented Groups

Ms. Roos notes that the I-5 corridor is largely affluent, but that people to the east and south are often underrepresented. Indian tribes might be interested in the project. Other especially interested groups would be the Auto Club, chambers of commerce, and environmental groups, including the Endangered Habitat Group that was working in support of Proposition A might also be interested.

Likely Sources of Project Support and Opposition

Obvious strong supporters would be the Chamber of Commerce and the Auto Club, says Ms. Roos. The League is neutral or possibly a very weak project supporter, because they strongly support carpooling and public transit use.



Proposed Survey Question

“Would the value pricing encourage you to carpool?”



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Lisa Briggs, Executive Director San Diego County Taxpayers Association (SDCTA)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 19, 2004

SDCTA’s Role in Project Planning or Implementation

SDCTA has been working with the oversight committee that was approved through Proposition A. Ms. Briggs and/or volunteers have also been part of SANDAG’s Regional Transportation Plan (RTP) process, as a watchdog, making sure that costs are reasonable, and that there are not a lot of cost overruns, and that revenue is used well. SDCTA is pushing SANDAG to come up with some meaningful performance measures for traffic flow—not just cost, but also effectiveness. For example, they want to look at people throughput and commute times. It is important to know how well the transportation system is keeping up with residential growth.

Perception of Existing and Future Corridor Mobility Conditions

Conditions are congested from the I-805/I-5 merge up to La Costa. Congestion breaks up a bit toward Oceanside. During weekday rush hours, the merge is very bad, but increasingly, even weekends are congested. Ms. Briggs has been aware of this worsening trend for at least seven years. SDCTA is concerned about congestion itself, as well as its impacts on the regional economy and quality of life.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Ms. Briggs is intimately familiar with the I-15 Express Lanes (FasTrak). In fact, they are the only reason she is still willing to live in Rancho Pensasquitos and commute to downtown San Diego. She notes significant growth along the corridor.

Ms. Briggs also observes that many people think FasTrak pricing is based on rush hour, rather than flow on the managed lanes themselves, and are unaware that it’s an inverse relationship. In fact, Ms. Briggs herself used the lanes for at least a year and a half before she understood this—and that was partly because she began working with SANDAG. This speaks to a need for better marketing and public information for the new lanes on I-5.

Efficiency

The lanes are an efficient option for people, but Ms. Briggs thinks they need to be extended past Escondido, past the Hodges Bridge bottleneck.



Fairness

Ms. Briggs thinks they're fair. Based on her own use, and she is not "especially affluent" she can see that people who place value on being able to get to and from home to work and childcare in an efficient way will find the lanes worthwhile. And because transit and carpool users are free, there is something for everyone. It's a personal choice. On some days, when the traffic is not so bad, Ms. Briggs chooses not to pay the toll, and use the main lanes.

Applicability to I-5 Corridor

Although value pricing seems to be working on the I-15 Corridor, Ms. Briggs would like to see studies that document real benefits before a decision is made to apply the concept to the I-5 Corridor.

Project Concept & Operations Pros and Cons

Current Community Issues

[See Likely Sources of Project Support and Opposition, below]

Priorities for Use of Managed Lanes

Ms. Briggs places the first level of priority on high-occupancy vehicles, including transit buses, vanpools and carpools. She suggests that a tradeoff between slightly lower speeds and more options to solo drivers to buy in might be wise, because it would help alleviate main lane congestion and generate more revenues. Although allowing emergency vehicles in at no toll is a "no brainer," Ms. Briggs thinks the case for clean air vehicles is more difficult. Because the lanes are designed for mobility and congestion relief—not clean air, she suggests that until that goal is achieved, they not be given priority. She is not in favor of allowing trucks on the lanes.

Managing Demand: Access vs. Tolls

Ms. Briggs believes that physically limiting lane access could be added to tolls to manage demand. The essential thing is to make people understand that the toll rises because the lanes are full. People don't get it.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

The type of barrier and whether locations can be closed if congestion occurs even with the tolls at their highest rate is an engineering design issue, and should be based on mobility improvement. Whatever the decision, the options need to be clear to drivers.

Number of Access Points

The lanes need to be safe and flowing. The location and number of access points must be based on hard throughput data, and not political influence.



Operating the Lanes: Ingress/Egress Priority
Caltrans decision based on moving more people.

Signage and Toll Information

The I-15 FasTrak signing is reasonably effective. People can't always see what's up ahead on either the freeway main lanes or the managed lanes. Perhaps a sign comparing the lanes visually or with some easily understood market would allow better consumer choice information.

Importance of Modal Choice on the I-5 Corridor

It's very important to provide people with choices.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

It's a good deal.

Use of Toll Revenue

Members do not want to see money going to growth of bureaucracies, but to improve the transportation system, and improving quality of life. Some revenue could even go to water supply and treatment, or storm water runoff, because the freeway expansion means more runoff, as well as other impacts.

Managed Lanes' Likely Impact on Travel Behavior

If a pricing strategy were implemented, Ms. Briggs believes people may carpool, and based on the success of the Coaster, others may choose transit. However, some may use them as toll-payers, knowing they can still make a meeting and not have to leave 90 minutes early.

Effectiveness in Moving People

Ms. Briggs believes the managed lanes will move more people than regular HOV lanes, but would need proof to believe they moved more people than main lanes.

Environmental Issues

Not an issue.

Safety, Enforcement, and Related Operational Issues

These are Caltrans decisions, based on safety and efficient operation of the system.

Operational Suggestions

Leave it to Caltrans.

Pros

Provides an additional mobility option in a corridor that needs more options to increase people-moving capacity.



Project Concerns and Challenges

SDCTA's biggest concern is cost/benefit of the project, including the reasonableness of the costs, where the money is going.

The biggest challenges to any project are the NIMBYs (Not In My Back Yard). Assuming that Caltrans has right-of-way required, the environmental process will burn up a lot of time and money, as well.

Environmental Justice Issues

Equity

Because it's a choice, and not a mandate, and carpoolers, vanpoolers and transit riders can still use the lanes for free, there really isn't an equity question.

Perceptions of Fairness

There may be some people that are upset, and just want to open the lanes up to everyone, but carpoolers and transit riders should be happy. The transit riders enjoy the moral high ground on this.

People coming from Orange County, where tolling exists, will understand what San Diego County is doing. Others, including those from non-congested areas, may wonder what's going on. It's hard to say how truckers will react to the lanes.

Other Public Input

Underrepresented Groups

The heads of service unions are included in various SANDAG committees. But the regular users need to be included in the discussion.

Likely Sources of Project Support and Opposition

Ms. Briggs thinks there will be some people who will be concerned about the proposed value pricing on I-5, and these may be consumer advocates or those who advocate for low income populations. Possibly students and employers with lower-wage employees might also have issues that should be addressed. Environmental pushback due to the potential growth-inducing effect of facilitating longer commutes might occur, and, on the other side, anti-carpool sentiments might also make themselves known.

Proposed Survey Question

Ms. Briggs doesn't see the need to ask people if congestion is a problem. Instead, ask, "Would you use the managed lanes? Would you be more or less likely to join a carpool if the lanes were restricted to carpools? Would you use bus rapid transit? Where do you need to get on and off? (What are your origins and destinations?)"



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Ron Wootton, Executive Director Buena Vista Lagoon Foundation (BVLf)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 15, 2004

Buena Vista Lagoon Foundation’s Role in Project Planning or Implementation

BLVF has invited Fish and Game, various city government representatives, the US Army Corps of Engineers, transit operators and Caltrans to a number of BLVF’s meetings, to discuss how the I-5 widening would affect the lagoon. In addition, the BVLf has already been playing a role in inviting, including and considering the project stakeholder agencies in the Lagoon Restoration Feasibility Analysis. The BVLf is still looking for alternatives for the lagoon, and would like to see agencies work together toward feasible solutions.

Perception of Existing and Future Corridor Mobility Conditions

Mr. Wootton observes that conditions on I-5 are highly variable, with obvious increases in traffic volumes, leading to an increased problem at transitions.

Members of the BVLf are focused on issues related to physical impacts of proposed freeway changes on the lagoon. Members ask, “How many cars will be sending out fumes into the air? What will the be the future footprint intrusion into the wetlands?”

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Wootton is familiar with the I-15 FasTrak lanes, and has used it upon occasion when he’s riding with an employee, as a carpooler. He has not used the lanes as a toll-payer.

Efficiency

Mr. Wootton does not believe the I-15 FasTrak facility is efficient, because, in his view, they create as much congestion as they relieve, at the transitions. He believes that more general purpose lanes would be better, because they would have no congestion-causing transitions.

Fairness

Mr. Wootton does not see a fairness problem, to the extent that Caltrans is getting two people into a car, or allowing people to pay to get around congestion. In fact, he says, “More power to them.”



Applicability to I-5 Corridor

As long as HOV lanes are already a part of the project, Mr. Wootton would be in favor of applying an I-15 FasTrak approach to them

Project Concept & Operations Pros and Cons

Current Community Issues

The main issues of concern for the BVLf relate to the current decision-making process that will follow completion of the Lagoon Restoration Feasibility Study. Should the Lagoon be enhanced in its current state as a freshwater lagoon, which is unusual? Or should it be mixed with some tidal interaction? Or should it be open entirely to tidal interaction? Or should it just be left alone? Different constituencies within and without the BVLf are on different sides. The Foundation has had some interest from agencies willing to fund various scenarios, and the preservation of the BLV is a popular project with a lot of local high-profile support. The BVLf's concerns related to the proposed managed lanes would be only those that would impact one of these scenarios.

Priorities for Use of Managed Lanes

No Opinion/Not Applicable

Managing Demand: Access vs. Tolls

No Opinion/Not Applicable

Access/Ingress/Egress

No Opinion/Not Applicable

Signage and Toll Information

No Opinion/Not Applicable

Importance of Modal Choice on the I-5 Corridor

Mr. Wootton stresses that decision-makers consider the rail and roadway scenarios as one package, because they both cross the lagoon, and unless they are mutually exclusive options, their impacts will be cumulative.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

No Opinion/Not Applicable

Use of Toll Revenue

No Opinion/Not Applicable

Managed Lanes' Likely Impact on Travel Behavior

Although Mr. Wootton agrees it's important to give people choices, he doesn't think they will take the bus, because connecting service (first mile/last mile segments of total trips) is inadequate or non-existent. Nor does he think the value pricing will encourage more



carpoolers. People are already encouraged to carpool at the workplace. Housing and job location are more important factors than the pricing.

Effectiveness in Moving People

Mr. Wootton does not believe the lanes carry more people than regular carpool lanes, and he points out that this is inherent in their concept. “If you could carry more people without charging the fee, you wouldn’t charge the fee.” Nor does he think managed lanes carry more people than general purpose lanes.

Environmental Issues

BVLF is primarily concerned about the size of the physical footprint, which does not seem to be significantly impacted by the value pricing project. Air quality, another major concern, might be marginally improved. Mr. Wootton notes that the net impacts of the freeway widening itself may even be beneficial, because project-related changes to the over-crossing could also include deepening the lagoon shoreline around the edge, and that could be a benefit.

Safety, Enforcement, and Related Operational Issues

No Opinion/Not Applicable

Operational Suggestions

Mr. Wootton is concerned that decision-makers and Caltrans are worrying about through traffic without attending sufficiently to the I-5/SR 78 transition. He warns that for every small increment in congestion on I-5, there’s a much larger increase in congestion at the transition.

Pros

No Opinion/Not Applicable

Project Concerns and Challenges

The BVLF is only concerned about the issues of the footprint of the roadway and local air quality impacts on the lagoon. Understanding that physical access to the lanes can be combined with toll management of lane volumes, what are your priorities for use of the managed lanes?

The main focus of BVLF on project scenarios is physical footprint-related. BVLF would therefore advocate any project variation that would reduce the physical footprint (and impacts) of the project. For example, a toll booth or enforcement area that required more pavement would be less desirable from the standpoint of BVLF.

Environmental Justice Issues

No Opinion/Not Applicable

Other Public Input

No Opinion/Not Applicable



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Doug Gibson, Executive Director San Elijo Lagoon Conservancy (SELC)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 15, 2004

SELC’s Role in Project Planning or Implementation

SELC will be involved in working with agencies on any potential impacts that may happen within the corridor, plus they’ll work on mitigation strategies. SELC is focused on the area from the top of Manchester to the top of Lomas Santa Fe Drive, and is involved as much as possible in the Manchester interchange project.

Mr. Gibson also is co-chair of the Southern California Wetlands Recovery Project, San Diego Task Force, and has inter-agency contact in that forum, as well.

Perception of Existing and Future Corridor Mobility Conditions

The I-5 Corridor does not support the mobility needs of the population.

SELC membership is concerned about transportation-related impacts to wetlands and long term air pollution problems that affect both the lagoon and the coast line.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Gibson is familiar with the current I-15 Express Lanes, but he does not use them. He does make use of the SR 73 toll road in Orange County.

Efficiency

Mr. Gibson knows people who do use the I-15 FasTrak and they like it. Generally, it is beneficial to give people more options.

Fairness

Mr. Gibson recognizes that the lanes require people to pay a premium for time. The concept is “fair” in that there isn’t enough space left to develop the infrastructure to save time for everyone—so it’s reasonable to charge for a scarce resource.

Applicability to I-5 Corridor

Whether Mr. Gibson would support applying a pricing strategy to the I-5 Corridor depends on what the revenues would be used for.



Project Concept & Operations Pros and Cons

Current Community Issues

Issues of concern to SELC and the community on the north side of the San Elijo Lagoon include sound wall design, noise attenuation, and how that will work. For people on the southern side of the lagoon, there are going to be property takes that are active and ongoing concerns.

Priorities for Use of Managed Lanes

Mr. Gibson favors giving priority to high-occupancy vehicles first, in descending order of capacity. To generate revenues, there must be opportunities for buy-in, but at a premium price. Trucks should not be permitted—“trucks and carpool lanes don’t get along.” Mr. Gibson cites tough ingress/egress, queuing problems and numerous grades that create additional truck/auto conflicts. Emergency vehicles should be permitted at no toll, but Mr. Gibson reserves highest priority for clean air vehicles, reflecting SELC’s concerns about air quality and its impact on the health of the lagoon.

Managing Demand: Access vs. Tolls

Mr. Gibson thinks a combination of controls on physical access and tolls will have to be used, in a dynamic and responsive manner to existing conditions to manage demand fluctuations. However, access will have to be maintained for emergency vehicles, and the public will need good signage to understand that a frequently used entrance is temporarily closed.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

This is a Caltrans issue.

Number of Access Points

There should be direct access at SR 56. Otherwise, leave it to Caltrans.

Operating the Lanes: Ingress/Egress Priority

Mr. Gibson proposes that all lanes be merged together. Not only is Mr. Gibson opposed to providing priority access to freeway based transit, he is against development of BRT on the managed lanes, and supports, instead, double tracking the Coaster, rebuilding the trestle and improving service on that rail alignment.

Signage and Toll Information

SELC does not have a position or opinion on this.

Importance of Modal Choice on the I-5 Corridor

Choice is good.



Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Gibson doesn't think the toll level is a problem, and that at any given level you'll find people who are willing to pay it.

Use of Toll Revenue

From the pricing standpoint, and given that the project will be paid for by *TransNet*, one of the most important issues for SELC is what the funding will be used for. SELC would not want the fees to support new transit in the corridor, nor is carpooling support on SELC's list. Mr. Gibson hopes to see the revenues go to offset the impacts of invasive species planted in the freeway median by Caltrans. He thinks that at least some portion of the revenues should go to the corridor cities for coastal parks. All cities along the I-5 are impacted by the widening project, and by the freeways generally. Directing toll revenues to mitigate those impacts through improving parks and wetlands would be fair.

Managed Lanes' Likely Impact on Travel Behavior

Mr. Gibson would use the lanes himself. He believes the increasing severity and extent of "peak period" traffic will move people into transit, but hopes to keep transit off the freeways—especially for short hops—and instead, to integrate feeder bus service with an improved Coaster service. Carpooling continues to be a hard sell, because of peoples' diverse travel patterns and the north/south nature of the main roads and freeways. The managed lanes should be reserved for three-person carpools and up.

Effectiveness in Moving People

Although Mr. Gibson thinks managed lanes will NOT move more people than carpool lanes, he's not sure whether they'll move more people than main lanes (lane for lane.)

Environmental Issues

In addition to SELC mission-related interest in noise, air and water quality impacts, SELC has members who may lose property and who will face more freeway noise.

Safety, Enforcement, and Related Operational Issues

These are Caltrans and CHP issues.

Operational Suggestions

None identified.

Pros

Managed lanes could marginally reduce air pollution.

Project Concerns and Challenges

SELC is "adamantly opposed" to the proposal to locate a 400-space park-and-ride lot at Manchester, without significant project modifications. (It must be smaller, more condensed, packed into one side of the strawberry field, and the remainder of the field needs to be re-vegetated with native species.)



Environmental Justice Issues

Equity

Mr. Gibson does not think there is a significant equity problem with implementing value pricing on the managed lanes. Whether it's fair or unfair, you find your median balance of what's fair. People would be willing to pay more if it's they knew what it was going for, and that it benefited their community.

Perceptions of Fairness

It is likely that charging a fee will cause some hard feelings, particularly in low income groups, which then might show itself along ethnic lines. Main lane users should not object, since the managed lanes represent a new option, on new lanes. HOV users and transit riders will be similarly pleased with a quicker travel option. Mr. Gibson thinks that both San Diego and interregional travelers should be happy with the managed lanes.

Other Public Input

Underrepresented Groups

None identified.

Likely Sources of Project Support and Opposition

Support and opposition depend, in Mr. Gibson's view, largely on what the toll revenue is used for. "You could get every city and environmental group on board if the funding is directed toward them. And, in opposition, you'll have the typical people out there suing for anything."

Proposed Survey Question

"Would you support some portion of net revenue going to community enhancement and environmental protection?"



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Larry Rannals, Community Plans & Liaison Officer Marine Corps Base, Camp Pendleton
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	December 3, 2004

Camp Pendleton’s Role in Project Planning or Implementation

About six years ago, SANDAG prepared a plan to widen the I-5, and they asked the Department of Defense to provide representation to the TAC (Technical Advisory Committee). The Navy represented the south, and Camp Pendleton was asked to provide representation for the northern part of the corridor.

Perception of Existing and Future Corridor Mobility Conditions

The I-5 in North County is not uncongested any more. From Orange County southward, it’s congested much more severely and more often than ten years ago, and it’s going to continue to get worse. The southbound lanes from Carlsbad south are especially bad.

At Camp Pendleton, there are a lot of younger Marines, at lower grade and pay levels, and they perhaps can’t afford two cars. This creates problems with spouses stranded at home with no alternatives. North County Transit District does serve the base, but even though they provide more service than is warranted by the absolute volume of ridership, the frequency (60 minute headways) is still too low to accommodate the needs of those Marine spouses who are transit dependent. And not all parts of the base are served by NCTD. An additional problem is that the needs of those on the base don’t always gel with the bus schedule.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Though Mr. Rannals has never used the I-15 Express Lanes, he is familiar with them through reading SANDAG literature.

Efficiency

Mr. Rannals believes that the lanes are well received by the public, and are perceived as effective mobility options. He would like to see the facility extended. His personal opinion, however, is that HOV lanes don’t fix the congestion problem, and he prefers making all lanes general purpose lanes.



Fairness

Mr. Rannals believes that the structure of the pricing (paying more during peak than off-peak) is fair, based on what he knows about it. It would be expensive to use the lanes regularly, but if someone can afford it, it's worth it.

Applicability to I-5 Corridor

Mr. Rannals is generally in favor of an I-5 pricing solution, as long as lanes are added, and no general purpose lanes are taken.

Project Concept & Operations Pros and Cons

Current Community Issues

None identified.

Priorities for Use of Managed Lanes

Prioritization of the lanes should be based on vehicle occupancy, and go from highest to lowest. From Camp Pendleton's perspective, Mr. Rannals would favor truck use of the lanes off-peak. Emergency vehicles should certainly be allowed on the lanes at no toll, and possibly clean air vehicles. Mr. Rannals suggests that active duty Marines be allowed to use the managed lanes as well, at no cost to them.

Managing Demand: Access vs. Tolls

Let the experts determine whether physical access, tolls or a combination of the two should be used to manage demand.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

This is a design question that should be decided on the basis of safety.

Number of Access Points

The more open the facility, the better.

Operating the Lanes: Ingress/Egress Priority

Access should be open to everyone who's qualified to use the lanes. Merging priority should be based on what makes sense—leave it to Caltrans engineers.

Signage and Toll Information

Just make the signage adequate to keep people informed of what's going on, and what's ahead.

Importance of Modal Choice on the I-5 Corridor

Providing choices is very important. The Coaster has excellent ridership, but it hasn't taken a lot of volume off the I-5.



Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Rannals thinks the sample toll is reasonable based on other toll roads of which he is aware, but says each individual will react based on his or her own personal situation.

Use of Toll Revenue

Toll revenue should be spent within the corridor that generated it, and be spent on some transportation purpose, including freeways and arterial feeders to the freeway.

Managed Lanes' Likely Impact on Travel Behavior

If the lanes were built, Mr. Rannals might use them as a toll payer, depending on the value of any given trip. He would not become a regular user, however.

He is not sure if would encourage carpooling, and he suspects the lanes would not encourage transit as much as SANDAG would like. Marines at the base would probably use the lanes as carpoolers. However, as a whole, they tend to be corporals and below, and these are not high-income positions. Certainly, some people would choose to use the lanes, at some times, regardless of income.

Effectiveness in Moving People

Mr. Rannals doesn't believe the managed lanes will carry more people than either the same number of regular HOV lanes or main lanes.

Environmental Issues

Camp Pendleton might have air quality concerns—especially if the base residents must live and work along a 20-mile bottleneck where the emissions are unfairly concentrated.

Safety, Enforcement, and Related Operational Issues

None identified. Mr. Rannals favors a toll-based penalty for lane violators, rather than a moving violation citation.

Operational Suggestions

Carry the lanes all the way to connect to Orange County freeway improvements. And place some attention on the contra flow traffic. The freeway in the north end of the County is carrying increasingly heavy volumes.

Pros

None identified.

Project Concerns and Challenges

As currently planned, the SR 241 toll road will be constructed in southern Orange County and will end at the Orange/San Diego County line where it merges with I-5. As currently envisioned, SANDAG's I-5 managed lanes project is being planned to end at Vandegrift Blvd. in the City of Oceanside, thus leaving an approximate 20-mile stretch of I-5 through Camp Pendleton with no planned traffic flow improvements of any kind being contemplated. Mr. Rannals points out that just because there aren't a lot of residential areas along the freeway alignment adjacent to Camp Pendleton, that doesn't mean the



through-traffic isn't significant from Oceanside to Orange County. If the I-5 managed lanes stop at Oceanside, there will be a bottleneck for miles along the military base. "At some point, someone needs to start thinking about this," states Mr. Rannals.

Environmental Justice Issues

Equity

Some low income groups might think value pricing is fair because it reduces traffic on the general purpose lanes; others might think it's unfair because some can afford it and not others. Mr. Rannals believes equity is related more closely to income than ethnicity, but members of ethnic groups may feel otherwise.

Perceptions of Fairness

Different road users might be pleased with the lanes for different reasons. I-5 main lane users will be happy that people are getting off the main lanes. HOV lane users get a two lane HOV facility, and transit riders will enjoy quicker travel time if their buses can use the lanes. For those already familiar with managed lanes, and especially those who already use them, the appearance of more such lanes will be welcomed. Truckers will just be glad to get passenger vehicles out of their way.

Other Public Input

Underrepresented Groups

None identified.

Likely Sources of Project Support and Opposition

Low income groups might object. Strong support will come from any transportation enthusiast who thinks managed lanes are the way to go.

Proposed Survey Question

"SANDAG plans to spend \$xx to develop this system. Is there something else you would rather see that money used for?"



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Pete Magana, Secretary, American G.I. Forum, Oceanside Chapter
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 15, 2004

Role in Project Planning or Implementation

Not applicable. The American GI Forum is a family veterans' organization established to improve lives of the local Latino community in the education, social and economic arenas. Its membership includes veterans of WWII, Korea, Vietnam and Desert Storm.

Perception of Existing and Future Corridor Mobility Conditions

Mr. Magana pointed out that the I-5 is congested nearly all day. "There are bottlenecks on every interchange between Oceanside and Del Mar." This means weaving and merging, with the passenger car traffic limited to two lanes, because the trucks take the outside two lanes. Mr. Magana expressed sympathy for the truck drivers, who must constantly break as cars cut them off to merge in and out of traffic in the main lanes.

All of the members of the GI Forum drive cars. Mr. Magana stated, "Really none of them that I know take transit. I have yet to take a bus and I'm 76 years old." His organization's membership is concerned with anything that has to do with mobility and access and congestion. Mr. Magana does not see an easy answer to these problems.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Magana is familiar with the I-15 Express Lanes, but has not used them. He has used the SR 73 toll road in Orange County once, but did not think they offered a time savings, given his particular destination for the trip (Long Beach).

Efficiency

Mr. Magana believes the carpool lanes work well, though they probably do not encourage new carpooling. He suggests they be open to all travelers.

Fairness

Mr. Magana thinks the lanes are somewhat unfair, because not everybody can afford to use them. "When the lanes were first built, it seemed as if they were for the rich. I still sort of feel that way. But if carpoolers still go for free, it's fair. Somebody has got to pay for the road."



Applicability to I-5 Corridor

Mr. Magana is concerned that allowing solo drivers to buy in to the HOV lanes would discourage carpooling. If this concern were allayed, Mr. Magana would not be opposed to a FasTrak application along the I-5.

Project Concept & Operations Pros and Cons

Current Community Issues

No particular issues noted.

Priorities for Use of Managed Lanes

Mr. Magana believes that the first priority should be to encourage the use of transit, vanpooling, and carpooling. If the lanes are full with carpoolers, it should be the solo drivers who are excluded from the lanes first. Mr. Magana would include solo motorcycle riders along with solo drivers in passenger cars as the first to be required to leave the managed lanes as they fill up.

Mr. Magana is not in favor of allowing trucks in the lanes, even if they have two passengers, because of the impingement on visibility for other drivers. He also noted the safety factor, adding, “If a truck is traveling 70 miles per hour with a load, it will take him two blocks to stop.”

While Mr. Magana favors allowing emergency vehicles at no toll, he is not in favor of such a privilege for clean air vehicles. He stated, “Eventually we’re all going to use them, so don’t give them priority.”

Access/Ingress/Egress

Mr. Magana believes that the more access points there are, the more they’ll be used, and the more congestion we’ll have. “The access points are really a problem with the trucks, and they keep moving over. At Vista, Caltrans added one northbound lane, then they made it two plus one lane going east and west on SR 78. That really helped, and gave about a mile long merge. Long merges really help, and limited exits—only major exits should have access.”

Mr. Magana would prefer a physical barrier on the condition that there is a shoulder providing space between vehicles and the barrier itself. He has seen how drivers treat the painted barrier on the I-405 in Los Angeles County, where, if people don’t see a police officer, they violate the lanes as if they weren’t there.

Ingress to the lanes should be open to all eligible users, in Mr. Magana’s view. To require them to merge into or out of lanes at different points would just create more problems. However, Mr. Magana can see the logic of giving exit priority to buses and carpoolers with longer merges, which, he adds, would be safer and more comfortable for older drivers to negotiate.

Signage and Toll Information

Mr. Magana believes that the conversion of named exits to numbered exits will help drivers plan their routes better. In a recent trip to Washington State he noticed that the numbering was effective in helping him anticipate when to merge for an exit.



Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

For the average person making under \$15 per hour, Mr. Magana believes that's too high, certainly on a regular basis. However, people might use the managed lanes for emergencies, important appointments, or to make a ball game.

Use of Toll Revenue

Mr. Magana would like to see toll revenue reinvested in the section of road that generates the revenue. "I can guarantee we'll be upgrading the off-ramps and on-ramps at some point. Put it in a piggy bank and that's what we'll have to work with. It should be a transportation purpose."

Managed Lanes' Likely Impact on Travel Behavior

The lanes would have little impact on Mr. Magana's travel behavior, since he is now retired. He believes that the bus rapid transit proposed for the corridor would encourage transit use. He cautions that that the employers need to work with their employees, to make the options work. Mr. Magana would like to see Sorrento Valley employers phase their start times, for example, to reduce bottlenecks.

Effectiveness in Moving People

Mr. Magana believes the managed lanes would move approximately the same number of people as the same number of non-priced HOV lanes. However, the managed lanes will likely move more people, lane for lane, than the main lanes.

Environmental Issues

None identified.

Safety, Enforcement, and Related Operational Issues

Mr. Magana's perception is that, especially in HOV segments on overpasses and bridges, the center concrete barrier is only a stripe's width away from the car, and this creates a safety concern. He avoids taking the lanes at night for this reason, and because the lights of oncoming cars can be blinding.

Trucks should be excluded from the managed lanes, and limited to the two outside main lanes.

Mr. Magana believes that penalties for violating managed lanes access policies should be similar to the ticket a driver would get for crossing the double line lane markers. However, he is concerned about where CHP officers would be able to pull people over, and suggested that a better idea might be to mail them the ticket.

Pros

It makes sense to have more choices for travelers on the I-5. And it is worth six dollars to have a dependable trip time. Mr. Magana stated that, without the lanes, when he needs to catch a plane he doesn't know whether to allow 45 minutes or two hours and 45 minutes.



Project Concerns

The lanes could discourage carpool formation.

Environmental Justice Issues

Perceptions of Fairness

Although Mr. Magana believes that if managed lanes are built with everyone's tax dollars, there should be equal opportunity to use it, he thinks that as long as carpools, vanpools and transit riders can use the lanes for free, it does not pose an equity issue. Further, he believes that the toll-paying solo drivers should have to be the first to leave the lanes when they are congested.

Mr. Magana does not think low income groups would perceive a significant fairness problem with the lanes. However, members of ethnic minorities might object to the extent that the freeway widening itself disproportionately impacts their neighborhoods.

User groups should either be happy with the lanes (because they can use them as toll-paying solo drivers or occupants of high-occupancy vehicles) or because they can enjoy marginally better drive times in the main lanes (truckers and I-5 main lane users).

Other Public Input

Likely Sources of Project Support and Opposition

None identified.

Proposed Survey Question

None identified.



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Peter Norby, Executive Director, Downtown Encinitas MainStreet Association (DEMA) <i>(With City of Encinitas Mayor, Maggie Houlihan)</i>
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 10, 2004

Note: City of Encinitas Mayor Maggie Houlihan stopped by during the interview with Mr. Norby, and remained for the duration of the interview. We were fortunate, then, to get Mayor Houlihan's views on the I-5 North Coast Managed Lanes, as well. All views expressed are the personal views of Mr. Norby and Mayor Houhilhan, or their perception of community views, unless otherwise noted.

DEMA's Role in Project Planning or Implementation

DEMA will be a voice for its stakeholders and will observe what is happening, especially regarding the I-5/I-805 merge, and issues related to the Coaster. DEMA is looking for things that are valuable for downtown and tries to stay aware of things that can hurt downtown Encinitas, including business, residents and the district as a whole.

Perception of Existing and Future Corridor Mobility Conditions

Mr. Norby describes conditions on I-5 as typical of corridors with similar population volumes nearby: "Congested, but not horribly congested." Transportation issues reflect what Mr. Norby sees as a "bifurcation of the County of San Diego" at freeway choke points that split the region on the I-15 at Rancho Bernardo, and on the I-5 at Del Mar. People are politically divided because of transportation."

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Although he doesn't use them, nor does he have a transponder, Mr. Norby is familiar with the I-15 FasTrak lanes.

Efficiency

Mr. Norby does not think that the FasTrak lanes provide an efficient mobility option. He does not like the concept, whereby the carrot (i.e., the opportunity to travel in lanes with free flow traffic) is used to get people to use the tolled lanes, while congestion remains on the main lanes.

Fairness

Mr. Norby does not think the lanes are fair, and doesn't like the idea that a wealthy commuter can pay to use something that a poor commuter can't. "I don't think we



should reward a behavior [solo driving] just because you can pay for that behavior. I don't necessarily object to a carpool lane, but as we expand that to the transponder, I'm against all that."

Applicability to I-5 Corridor

Mr. Norby does not want to see a managed lanes application on I-5. He suggests we either add capacity or use the space for light rail.

Project Concept & Operations Pros and Cons

Current Community Issues

The new and outstanding City of Encinitas Library will be able to be used by people from San Diego if the transportation problems are fixed. Mr. Norby states, "Right now there's a convenience and destination retail spot here in Encinitas. Destination is a 45-minute demographic, and we have trouble [attracting customers and tourists to Encinitas from within that 45-minute radius] because of the bottlenecks."

Priorities for Use of Managed Lanes

Mr. Norby is absolutely against allowing clean air vehicles to use the lanes for free. He feels it is a slippery slope that will dilute the purpose of the lanes. His view on preferential treatment is that it should encourage the development of "true HOV lanes." To that end, he would favor preferential merge lanes for higher occupancy vehicles (vanpools and transit buses).

Mayor Houlihan: The Mayor has encouraged people to use transit, in a variety of capacities, but more frequency is needed, because if people miss a train or an express bus, they're doomed. She supports giving priority to a bus rapid transit service along the managed lanes alignment, especially because it is more expensive to run a train than a bus.

Managing Demand: Access vs. Tolls

"Let the Caltrans engineers make this decision in order to move more people faster."

Importance of Modal Choice on the I-5 Corridor

Providing convenient alternatives to solo driving is of huge importance. "Give me a bus that can deliver five to ten thousand people a day. Give people options," says Mr. Norby.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Norby and Mayor Houlihan acknowledge that most people in Encinitas (at least two thirds of the population) could afford to pay tolls. "People spend \$5 a day on Starbucks." However, they both reiterate that the managed lanes provide the worst example of how to change behavior—and the lanes reinforce the idea that "He who has the gold makes the rules." Children pick up on this message, and, warns Mr. Norby, they get the idea that the bus is viewed as a second-class system. "What we do when we say you pay to drive on the freeway is to further the perception that mass transit is for the disadvantaged."



Use of Toll Revenue

Mr. Norby supports using the toll revenue to provide new transit in the I-5 Corridor. He cautions, however, “If you’re going to do it, do it right. Don’t take 25% of it and mess it up. Spend 100% of it and make it effective.”

Managed Lanes’ Likely Impact on Travel Behavior

Mr. Norby: Whatever the likely impact, we must focus on changing behavior. If the occupancy level is an issue, change the eligibility.

Mayor Houlihan: Increase the carpool threshold to HOV 3 when necessary. In 30 years, population will be six million—double today’s, yet we have no new roads. After we “buff out the ones we have, tweak the system—it still doesn’t work. That leaves mass transit.” Mayor Houlihan points out that if transit is removed from Washington, DC or San Francisco, the cities simply don’t work. “We’d better implement transit now to be ready for the future. We can change peoples’ attitudes toward buses with better service, better buses.”

Pros

One possible “positive” side of this is that the lanes preserve real estate for mass transit in the future.

Project Concerns and Challenges

DEMA, as an organization, does not have a policy on managed lanes. However, Mr. Norby’s concern is that as long as we give a way out for the wealthy, we won’t invest in transit for the future. “We’re all in it together.”

To the following topics, Mr. Norby and Mayor Houlihan defer to Caltrans’ expertise and/or have no opinion:

Access/Ingress/Egress

No opinion.

Signage and Toll Information

No opinion.

Effectiveness in Moving People

No opinion.

Environmental Issues

No opinion.

Safety, Enforcement, and Related Operational Issues

No opinion.



Operational Suggestions

Environmental Justice Issues

The only way Mr. Norby could support pricing is in the form of a pure toll road, where everyone pays for the road itself.

Other Public Input

Underrepresented Groups

Seniors, high school kids and the “almost invisible group of farm workers and domestic workers, who are here, legally or illegally” were identified as underrepresented groups. Often, says Mr. Norby, they take the Coaster.

Likely Sources of Project Support and Opposition

Mr. Norby indicated there are people who don't want them or HOV lanes at all, because they think they don't work.

Proposed Survey Question

No opinion.



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Erik Bruvold, Vice President, and Director, For Infrastructure Issues, San Diego Economic Development Corporation (SDEDC)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 16, 2004

SDEDC's Role in Project Planning or Implementation

SDEDC will have a stake and interest in how SANDAG and Caltrans provide mobility solutions up and down I-5. They are focused on solutions that provide the greatest mobility improvements for the most efficient cost. It is likely that they will be advocates for a solution that provides the use of transponders and thus enables the sale of excess capacity in the system to SOV drivers, through the payment of a premium with flexible pricing.

Perception of Existing and Future Corridor Mobility Conditions

Congestion on I-5 is bad: the region needs improvement here. SDEDC is concerned because managing the transportation system, and regional congestion and demand for mobility in San Diego County must be achieved to ensure that transportation mobility remains a regional competitive advantage.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Bruvold is familiar with the I-15 managed lanes (FasTrak) and uses them with a transponder, nearly every day. Sometimes, when he is particularly congestion sensitive, he has been willing to pay as much as six dollars. But the managed lanes have had problems during the recent construction. FasTrak users were stopped two miles before the merge, due to construction. This seems to have been relieved with the new configuration.

Efficiency

FasTrak is absolutely an efficient mobility option, although it is clear that the single entry and exit model is not the *most* efficient way of configuring the lanes.

Fairness

Mr. Bruvold believes the managed lanes are fair. That is, it is equitable to charge premium fees for premium service at peak periods, while also providing incentives to carpool and take transit. It's congestion relief for everyone. It's a fair way of allocating a scarce resource, namely "free-flow peak period mobility."



Applicability to I-5 Corridor

The plans for I-5 make good sense.

Project Concept & Operations Pros and Cons

Current Community Issues

There are people in the Solana Beach and other coastal areas who are concerned about how the right-of-way will affect their communities. We need this project, however, and property takes may be necessary to move it forward. Coastal lagoons are another concern, though the current project plans for the widening itself may actually improve that situation.

Priorities for Use of Managed Lanes

Manage the lanes to produce the greatest congestion relief possible, absent any other social concern. Clean air is important, but this is a congestion relief and demand management project, so that should come first. The singular focus for decisions should be moving the most people.

Managing Demand: Access vs. Tolls

Use tolls, and the sensitivity to price to reduce demand upon the facility. What conditions should be taken when lanes overload—should access be able to be closed at a specific location?

Closing off physical access will erode support for the project and compromise operation of the system. Caltrans won't get the behavior it wants if it takes that approach. If people go to the hassle of carpooling, they don't want to be denied access to the system. Move to HOV3+ if necessary, or raise the toll—that's not nearly as frustrating as being physically shut out of the system. Pricing is the thing that will change behavior.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Whatever allows for better demand management is the solution that should be chosen. A painted barrier may allow for greater flexibility in the event of non-recurrent congestion, but that advantage may be offset by weaving and enforcement problems.

Number of Access Points

The system should be as open as possible. In fact, one of SDEDC's concerns was the lack of sufficient direct access ramps. More slip ramps also are needed. This will increase the fairness of the system, and people won't be penalized for the particularities of where they live or work. Mr. Bruvold is especially concerned about access near the Del Mar area. Caltrans needs to examine trip origins and destinations closely.

Operating the Lanes: Ingress/Egress Priority

Ingress should be open to all eligible users of the facility. Merging back into main lanes should be configured to maximize the ability of the lanes to move people on the system.



Signage and Toll Information

The problem is that there is no way for consumers to make an informed choice about price much before accessing the system. What Mr. Bruvold suggests is development of an algorithm and associated signage that could tell Joe Smith, traveling northbound on the I-805 that the toll was “\$4, going down to anticipated toll of \$2 in 30 minutes.” This might induce him to get off the freeway, “have a latte and do an errand” and spread the demand to the shoulders of the peak periods.

Importance of Modal Choice on the I-5 Corridor

Modal choice is solely a mechanism to get congestion relief. If it accomplishes that, then fine—but it’s important to remember that it’s a means to an end.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

“People will snap that up in a minute!”

Use of Toll Revenue

Toll revenues should be plowed back 100% into transit or transportation demand management programs within the I-5 Corridor, because that helps maximize the people-moving capacity of the corridor.

Managed Lanes’ Likely Impact on Travel Behavior

Mr. Bruvold believes more people will be carpooling, spreading their trips outside of peak periods, if the project is done right. Also, by linking discounts to TDM programs, including flextime and other strategies, more people will be participating in reducing overall demand on scarce peak capacity.

Effectiveness in Moving People

Mr. Bruvold believes the lanes will be more effective in moving people than either regular carpool lanes or general purpose lanes.

Environmental Issues

There are no environmental concerns specifically related to the value pricing on managed lanes.

Safety, Enforcement, and Related Operational Issues

Mr. Bruvold does not see any particular safety or enforcement issues that cannot be handled through proper planning.

Operational Suggestions

Regardless of whether it’s a barrier or painted, or the 5+2 or the 4+2, the lens that SDEDC will use is “which facilitates mobility and which maximizes mobility”

The I-5 Corridor itself is a challenge, with its multi-directional flow and multiple centers for origins and destinations.



In general, SDEDC would like to see SANDAG take a more creative approach to implementation. Possibilities could include more aggressive discounts for trip demand management on the corporate or community side, tied to discounts to transponder pricing. A discount could be negotiated, and tied to SANDAG's direction on increased TDM, in order to build a corporate constituency for implementing the program. Also, there needs to be more creative and aggressive discussions showing people the link between tolls and support for transit in the corridor. That could be something as simple as including explanatory material in the billing invoice that reminds people where their revenues go.

Pros

The managed lanes are an effective and fair way to maximize capacity and people moving ability of the freeway system.

Project Concerns and Challenges

SDEDC doesn't have a big problem with the managed lanes approach, but SANDAG will have a challenge getting the five communities along the coast to agree and move forward in a positive manner. Staging, or construction phasing also will be a big problem. It will be important for Caltrans to ensure that plans for structures and bridges don't get delayed up in Sacramento headquarters. District 11 and Sacramento will need to focus, and eliminate roadblocks if the project is to be completed by 2014.

Environmental Justice Issues

Equity

There really are no equity issues—except to maximize opportunities for ingress and egress for all travelers.

Perceptions of Fairness

Not sure; not really SDEDC's issue.

Other Public Input

Underrepresented Groups

None identified.

Likely Sources of Project Support and Opposition

SDEDC will be a strong support, as will most travelers.

Proposed Survey Question

“Agencies can either maximize the amount of community outreach and consensus-building to meet the concerns of neighbors immediately along the alignment, or build the project as soon as possible. Should we take time to reach community consensus or build the project as soon as possible, with as much fairness as possible in that shorter amount of time?”



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Ceci Cazares, Legislative Chair San Diego County Hispanic Chamber of Commerce
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 8, 2004

Hispanic Chamber of Commerce Role in Project Planning or Implementation

In her capacity as Chair of the Chamber’s Legislative Committee, Ms. Cazares noted that the Chamber actively supported Proposition A, and in fact took strenuous steps to obtain a near-unanimous vote within that committee to move forward on that support. The Chamber worked cooperatively with Lisa Briggs to galvanize regional support of *TransNet*.

Perception of Existing and Future Corridor Mobility Conditions

Ms. Cazares likens the speed of traffic on I-5 to a “snail’s pace” and notes that it has worsened in the past few years. As Chairperson of the Legislative Committee for the Hispanic Chamber of Commerce, Ms. Cazares stated that her constituents share a general concern over traffic onramps and exits and congestion.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Ms. Cazares utilized the I-15 FasTrak lanes as a carpooler during 1997.

Efficiency

When Ms. Cazares used the lanes, she thought they were “absolutely wonderful.” Her time was so valuable that she would have been willing to pay in order to save half an hour every day for her family.

Fairness

As a demand management tool, the lanes are fair.

Applicability to I-5 Corridor

Ms. Cazares favors using a pricing strategy on the I-5 HOV lanes, but stresses that a universal (interoperable) transponder is important.



Project Concept & Operations Pros and Cons

Current Community Issues

Growth in San Diego County and neighboring areas has seriously affected the freeways. Ms. Cazares hopes that Transnet dollars will help out by expanding the freeway. The growth has seriously affected the freeways. There are a number of cross-border issues that will impact and be impacted by the project, as well.

Priorities for Use of Managed Lanes

Ms. Cazares believes the bulk of the capacity should go to high occupancy vehicles.

Trucks also should be given consideration, however, because the region's import/export business depends on truck mobility. The Hispanic Chamber has been discussing the possibility of asking Los Angeles to help pay for the local roads, because they are destined for Los Angeles, primarily. Emergency vehicles should be allowed at no toll, but only ambulances on current emergency duty-with their lights on. Ms. Cazares also supports clean air vehicle use of the managed lanes at no toll, at least initially.

Managing Demand: Access vs. Tolls

Ms. Cazares advocates a combination of tolls and physical access limits to manage demand, in order to ameliorate the pricing issue for low income workers.

Access/Ingress/Egress

Number and Location of Access Points

Ms. Cazares believes there should be community input on how many and where the access points should be located. In this way, diverse communities will have a fair share of benefits and access to the facility.

Physical vs. Painted Barriers

Caltrans should plan for the long term and avoid disrupting people and communities with double construction impacts.

Signage and Toll Information

Allow Caltrans to make the best engineering decision for safety.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

It would be worth it in some circumstances, but would not be affordable to all.

Use of Toll Revenue

No opinion.

Managed Lanes' Likely Impact on Travel Behavior

No opinion.



Effectiveness in Moving People

Would require more information, studies.

Environmental Issues

Environmental concerns are related to the freeway widening, not the managed lanes. However, Ms. Cazares notes, “We can’t stop the river from flowing—developers are building houses, so we need to be creative about how we implement our alternative fuel mandates.” Thus, Ms. Cazares believes managed lane policy should favor clean fuel vehicles.

Safety, Enforcement, and Related Operational Issues

This is an engineering issue.

Operational Suggestions

Caltrans must consider the construction impacts, and mitigate them as much as possible, such as doing work at night when possible.

Project Pros

Offers people a reliable alternative, and is still free to carpoolers and transit riders.

Project Concerns and Challenges

Ms. Cazares sees the amount of the toll as the project’s biggest concern. She stated that, “The majority of Latinos in that area, especially in North San Diego County, are poor working people. People will sacrifice time rather than money.” She is also concerned about a major communication gap with a lack of sufficient communications in Spanish. This is a problem even for documented workers, because technical issues and explanations of how to carpool need to be translated into Spanish. Ms. Cazares observed, “The Average Jose needs to understand how expanding the freeways and increasing opportunities for carpooling and quality transit can help him.”

Environmental Justice Issues

Equity

Given the average salary of area Latino workers, Ms. Cazares is concerned that they would be precluded from using the lanes as toll-paying solo drivers, unless there was a low income rebate. The opportunity to use transit and to use the lanes free as carpoolers or vanpoolers does mitigate this problem to a large degree.

Perceptions of Fairness

Though some are likely to see managed lanes as unfair, carpoolers and transit riders should be pleased with the facility.



Other Public Input

Likely Sources of Project Support and Opposition

Not sure of specific support/opposition. Generally, carpoolers and transit riders, plus those who would be willing to pay, would be supportive.

Proposed Survey Question

“Would you be able to afford this? What would you be willing to pay for “x” amount of minutes off your travel time in the I-5 corridor?”



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Timothy A. Read, Director of Operations Del Mar Thoroughbred Club
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 10, 2004

Del Mar Thoroughbred Club’s Role in Project Planning or Implementation

Beyond this interview and other comments Mr. Read has made to Caltrans regarding the overall I-5 widening project, there is no role for the Del Mar Thoroughbred Club in project planning or implementation.

Perception of Existing and Future Corridor Mobility Conditions

Conditions are bad, and getting worse.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Read has used the current I-15 Express Lanes as a carpooler. He has also used the Orange County Express Lanes (SR 91) and toll roads (SR 73) when he worked in Los Angeles. He used these lanes even in non-congested periods, primarily for safety, but also because they were more relaxing. The SR 73 had the additional benefit of scenic beauty.

Efficiency

Mr. Read believes the FasTrak lanes do provide an efficient mobility option for people.

Fairness

Mr. Read is not sure that he thinks the lanes are “fair.” However, he doesn’t think that “unfairness” would necessarily be a reason not to use them or to have constructed them. Mr. Read stated, “The reality is that some people have money and some don’t. If the idea is traffic efficiency, maybe fairness is relevant but not key.”

Applicability to I-5 Corridor

Mr. Read is generally in favor of applying a pricing strategy to the I-5 corridor.



Project Concept & Operations Pros and Cons

Current Community Issues

Mr. Read stated that there is supposedly a metered ramp on Via de la Valle southbound on-ramp to I-5. Most people coming to the race track want to be there by 2:00 p.m., at the first post. The last race is at 5:30 p.m. on weekdays. The Thoroughbred Club has a typical crowd of 10,000 on Mondays, Wednesdays and Thursdays. On Friday, the Club runs a later post. On those days it takes Club patrons longer to get out of the parking lot and get onto the freeway southbound than it will on Saturday, when there are over 25,000 people in attendance.

Priorities for Use of Managed Lanes

Certainly, buses and transit vehicles should be priorities, according to Mr. Read. Vanpools are not a particular concern of the Club. However, increased options for solo drivers to buy in to the lanes make sense because “they can help pay for the lanes.” Emergency vehicles should be given free access to the lanes only when in pursuit of a hot emergency “in process”—not just transporting a person. Mr. Read objects to using a uniform as an excuse to use the lanes when the vehicle is not in service. As for trucks permitted at “appropriate” times, Mr. Read said, “It depends on what you mean by ‘appropriate’.”

Managing Demand: Access vs. Tolls

Mr. Read believes that a workable combination of both tolls and limited access be used to avoid congestion on the managed lanes. He warns that, because people are “creatures of habit” it will be hard to re-route them if exits are closed with little notice. On the other hand, Mr. Read thinks it makes more sense to establish the access points to favor longer trips, and perhaps use the pricing along with limited access to discourage short hops on the freeways.

Access/Ingress/Egress

Physical barrier vs. painted barrier

Mr. Read believes that, on the freeway, a physical barrier is more desirable to preclude people from “doing dumb things.” He notes that if he, as an area resident, misses Via de la Valle, he knows six ways to get back to it. However, some people who are new to the area may feel it’s a “life-and-death” decision because they don’t know there are alternatives, and thus they make hasty decisions and put others at risk because of it. Mr. Read suggests that physical barriers might not need to be everywhere—only where there’s a decision point, and to channel people through merge areas.

Number of Access Points

Mr. Read thinks that access at every off-ramp would be too much access. He would decide in favor of safety over convenience. He believes that if people are forewarned with good signage and pre-publicity—so the news channels educate people on use of the facility, access points can be reduced.



Operating the Lanes: Ingress/Egress Priority

Rather than allowing differential “priority access,” Mr. Read suggests that Caltrans keep it simple. He stated, “Selfishly, I don’t like all vehicles having all access, because that adds volume that will restrict our peoples’ ability to get on the freeway, but in a regional sense the easier access is, the better. Tourists might be sitting there baffled, making mistakes, getting into accidents. I think you can approach it from the idea that it’s more open, and if you’re inundated, then start closing some down.”

Priority for merging back into general purpose lanes might be given to transit buses or emergency vehicles, according to Mr. Read.

Signage and Toll Information

Mr. Read feels the SR 73 and SR 91 are signed effectively, and seem like good models. The main thing is to give people enough information to make decisions in a safe manner. Venues such as the fairgrounds or Legoland might need special signage, and Caltrans could work with these venues to develop such things as real time information signs on changeable message boards (or other technology). Mr. Read hopes that Caltrans can provide technical assistance in developing the signs, and that the venues would be able to purchase them at Caltrans’ state cost.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Read would pay such a toll “in a heartbeat.” He is sure that a lot of his patrons would pay, as well.

Use of Toll Revenue

Mr. Read would like to see toll revenue go to pay for the facility and to provide ongoing maintenance for the facility.

Managed Lanes’ Likely Impact on Travel Behavior

Mr. Read would use the priced lanes as a toll-paying solo driver. He doesn’t believe there is great potential for transit and carpooling in the I-5 corridor, because transit does not accommodate complex trip making, and carpooling is not convenient for a lot of people. Perception, too, is a problem for non-users of transit, who feel it’s too big a hurdle. But, since people hate the crowded freeway so much, Mr. Read thinks they will pay \$100 per month. “There’s no one out there who wouldn’t rather spend a couple of extra hours with their kids or their wife or their dog.” And some Thoroughbred Club members would be willing to pay, as well.

Importance of Modal Choice in the I-5 Corridor

Mr. Read does not think that people in Southern California have been brought up to embrace bus rapid transit. He’s not sure they will ever use it, so modal choice is less important, in his view.

Effectiveness in Moving People

Mr. Read believes that the managed lanes will move more people than regular carpool lanes because they use up capacity.



Environmental Issues

Mr. Read hopes the project will reduce air pollution to some degree.

Safety, Enforcement, and Related Operational Issues

Mr. Read wonders about locations for emergency call boxes and turnouts for law enforcement to pull scofflaws over. “There should be a bubble where cops can pull people over, and some for breakdown spots.”

Mr. Read thinks that penalties for violating access to the lanes should follow the trend of increasingly stiff traffic tickets, which, he says “are the best disincentive.” He also favors photo enforcement over a CHP vehicle observing from some location along the freeway.

Mr. Read’s theory about the problems with the two-lane on-ramps, one of which is exclusive HOV, is that as races end and attendees get on to Jimmy Durante, the general purpose on-ramp lane backs up, stacking up Jimmy Durante. The City of Del Mar is unhappy with the situation, and Mr. Read believes the Thoroughbred Club should be able to drain its parking lot in 30-40 minutes without much trouble. He notes that what has changed over time is that more people (maybe 80 percent) now come from San Diego, instead of LA, and that the roadways are built for the opposite situation. Mr. Read supposes that most people would like a southbound HOV direct on-ramp. Caltrans recently added a northbound outside line and that Mr. Read reports has been helpful. He suggests considering a third right turn lane at the end of the northbound off-ramp at Via de la Valle.

Pros

Mr. Read believes the Club would probably support the project if the pricing helps pay for it, or if it helps add the infrastructure sooner than otherwise. He noted, “A lot of our people would be willing to pay for the convenience.”

Project Concerns and Challenges

Mr. Read does not anticipate any major conceptual problems that the Thoroughbred Club might have with the project. However, several operational issues exist, relating to how the managed lanes will affect the other lanes. Mr. Read is concerned about the lack of dedicated on-ramp/off-ramps. He also expressed concern about drivers merging at the last minute, and consequent safety problems, particularly those stuck in the right-hand lane that must exit onto SR 56. If they find themselves in that lane unintentionally, they often merge suddenly and dangerously to avoid being forced to travel farther north and backtrack. Better signage could rectify this, according to Mr. Read, who stated, “Normally Caltrans signage is very good, but here the signage is not effective.”

Environmental Justice Issues

Equity

If there is an equity issue, it’s related to income, not ethnicity, according to Mr. Read. He suggests that one of the uses of surplus revenue could be to subsidize travel of documented low income travelers.



Perceptions of Fairness

I-5 main lane users retain the option of finding a carpool partner and using the lanes for free, so they're not being precluded from the lanes, as long as they're willing to change their lifestyle a bit. But is it fair that people in Rancho Santa Fe can use it whenever they want? Perhaps not, Mr. Read says. Yet, limiting everyone to a maximum amount of uses per month doesn't make sense. "The key is to implement it as soon as possible. If we spend five years figuring out how to make it equitable, we're not doing anyone any favors. We can improve it as we go. We have an issue today. Get it going!"

Other Public Input

Likely Sources of Project Support and Opposition

Mr. Read suggests that the California Coastal Commission might have some problems with the project. He thinks that regular commuters will be in favor of anything that improves the quality of their commute. The business community in general should be in favor for the same reasons. "There will be a small negative minority that want to carry a torch for the fairness issue."

Proposed Survey Question

"At what price would you *not* use the lanes?"



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Milton Phegley, AICP, Campus Community Planner Government and Community Relations, University of California, San Diego
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 10, 2004

UCSD's Role in Project Planning or Implementation

Because the southern terminus of the managed lanes are envisioned as connecting to Voigt Drive, UCSD will be very much involved in the project. Although the bridge is owned by Caltrans, access is across University property. The University is part of the Community Planning Group (CPG is one of a number of groups of part of the City's planning process) and in this capacity, the University has stated that there needs to be appropriate planning for SANDAG's super loop project, which would be the overall implementation umbrella for the interchange area.

Perception of Existing and Future Corridor Mobility Conditions

The University is very concerned about congestion, especially peak hour congestion. There is growing awareness and concern about the increasing number of hours of congestion during weekends as well as weekdays. People have more ability to deal with it and plan for weekday congestion, in Mr. Phegley's view. Weekend congestion, however, often extends across greater periods of the day and is often more unpredictable. It's very frustrating for people, reports Mr. Phegley, who added, "The general perception is that the I-5 is serving its intended need, but how do you address the congestion now and into the future?"

Commuting issues are looked at from the perspective of university employees, Mr. Phegley explained, because he has found that students tend to live closer to campus. He suggests that students may have made the economic tradeoff of higher rents for shorter commutes to campus. There are concentrations of students in areas where there is bus service to campus. The University instituted City Shuttle in the immediate area of the campus for resident students. Based on the numbers—over 30,000 per week, it's highly accepted and will only serve to put more students in proximity to campus because that dependable transit connection is there. In terms of longer commutes, if students are making a choice for longer commute, it's a choice based on non-transportation issues, reports Mr. Phegley.

As far as faculty and staff go, residential location choices and traffic patterns are influenced by housing availability and affordability, as well as personal housing preferences. Faculty and staff are willing to make the commute time trade in favor of longer commutes for more affordability, larger homes farther away.

Mr. Phegley observed that, in general, faculty members tend to live closer to campus, to the north or northeast, based on their ability to purchase more expensive close-to-



campus housing. Staff members tend to be located south and southeast, somewhat farther from the campus. Thus, the I-5 influences both faculty and staff, but in different directions.

University employees are concerned with trip dependability and predictability and view transportation as a quality of life link between home and job. They don't want the commute to become another uncontrollable driver in their lives. Even if the commute is long, if it's predictable people can structure and balance their lives.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Phegley is familiar with the I-15 Managed Lanes, but has used them only a dozen or so times, as a member of a carpool.

Efficiency

Mr. Phegley believes the I-15 Managed Lanes are efficient people movers, but, judging by the public perception of them and reaction to them, their initial implementation may have been somewhat "before their time." On that corridor, the need for them will grow over years to come, and so perhaps the facility was not ideal as a prototype. In addition, though I-15 FasTrak goals are worthy, the configuration of the facility (originally only one ingress and one egress) places operational constraints on its usefulness.

Fairness

Mr. Phegley believes the lanes are generally fair in that they offer people a choice to use the lanes at no cost, either by choosing to join or form a carpool, vanpool or taking transit. People trade their personal commitment and the time required to carpool for the benefit of a time advantage on the carpool lanes.

As for buying into the lanes as a solo driver, Mr. Phegley believes this option is currently perceived as a luxury. That there is a lack of understanding by the public on value pricing—they don't understand that the pricing is designed to provide better utilization, with a threshold level of service. Instead, the public tends to think that people who can afford to pay up to \$4 per trip can use them, while those who can't afford them end up not being adequately served by the lanes. Thus, the carpool lanes are created with a benefit in mind, but people are not equal players in terms of who, besides HOV travelers, can use them.

Applicability to I-5 Corridor

As a strategy to be applied nearly a decade into the future (on the I-5) Mr. Phegley thinks that the level of congestion we will see in 2014 will combine with the availability of HOV lanes to bring more interest in carpools. Thus, Mr. Phegley suggests that value pricing may not be necessary. If there is an appropriate role for pricing in the I-5 corridor, however, it certainly needs to be controlled to leave capacity for HOVs. As congestion increases, we may choose to move more people efficiently in the HOV lanes by defining a carpool as three people.



Project Concept & Operations Pros and Cons

Current Community Issues

There's a growing move in the University City community, as density and population increase, to ensure that it gets ahead of the curve in how it deals with traffic and transportation. The City is fortunate to have a financing mechanism in place where developers pay assessment fees to build transportation infrastructure. But that pot of money is eventually going to run out when all development is tapped, and there's no guarantee that the amount of money from that source will be adequate to build identified facilities needed. Even if they were all built, there would still be unresolved congestion.

Future development will create both the need for the managed lanes as well as challenges to implementation. The University is in various stages of construction on its east campus facilities housing health sciences, ambulatory care, cardiovascular unit, a research park, and a cancer center. Substantial parts of the population from all over the San Diego region will need to be able to access these facilities. The managed lanes will help in that effort, if they are designed properly.

Priorities for Use of Managed Lanes

Mr. Phegley believes priority should be accorded for the highest-occupancy down to the lowest (SOV), but that emergency vehicles should certainly be allowed at no toll.

Managing Demand: Access vs. Tolls

Because the concept of the lanes is to provide the ability to move as many people as possible, it seems that this calls for providing as much access as possible. But then, in their capacity as managed lanes, access is controlled. Limiting physical access provides equal (if limited) opportunity to use the lanes, though perhaps not as conveniently. However, Mr. Phegley says that a toll structure has some inherent equity issues.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Mr. Phegley believes that the barrier type should be determined by a reasonable evaluation of safety demands. He is less comfortable with the narrower the painted barrier, but does not feel inherently safer with the physical barrier, which usually gives less room to maneuver.

Mr. Phegley suggests that the facility could be constructed with open access—no physical barriers—at first. If necessary they could be added later. He believes the opposite would be more difficult (i.e., taking barriers away) because of public perception of waste money, and creating a less safe situation, etc.

Finally, Mr. Phegley thinks that by time the project is constructed, there will be a lot of technological advances and we may be able to embed Intelligent Transportation Systems (ITS) guidance and collision avoidance technologies into the roadway, and this might have implications for the decision on barrier type. We should ask which would be most flexible to accommodate potential new technologies.



Number of Access Points

Mr. Phegley thinks that if the direct access ramps are the primary access points, this might be too limited. On the other hand, he recognizes the undesirable weaving problems associated with multiple access points, there's weaving problems. Mr. Phegley hopes a solution allowing flexibility for responsiveness to localized traffic patterns can be found.

Operating the Lanes: Ingress/Egress Priority

Operational issues should be solved with a focus on better management of the lanes, although in general, HOVs should get priority. Mr. Phegley suggests it might be better to design a longer route in some cases to avoid merge problems.

Signage and Toll Information

Mr. Phegley thinks the I-15 FasTrak signage could be better. As long as there is no cash option, and only people with transponders will be permitted, that means only those familiar with the operation of the lanes will be in them. Mr. Phegley would like to see an improvement over the I-15 signage in terms of informing travelers about the HOV lanes themselves, and how to carpool or take the bus. He would also like to see more real-time information. By the time of project completion, Mr. Phegley believes that real time congestion levels on both the managed lanes and the main lanes could be reported.

Importance of Modal Choice on the I-5 Corridor

Modal choice is “absolutely essential” to corridor operations, says Mr. Phegley. “People can't choose to carpool or take transit unless the viable options are there. That's the University's whole approach in terms of light rail. We realize it won't be a cure-all, but if you can address the home/work trip and get people out of solo occupancy vehicles, you've done a lot. You've eliminated congestion and removed the need to physically and fiscally affect the environment here in terms of having to build parking structures that serve a very [time-of-day] limited need.”

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Phegley said, “It's high, but it's an opportunity choice.”

Use of Toll Revenue

Mr. Phegley would be in favor of using net toll revenues support new transit in I-5 Corridor, only.

Managed Lanes' Likely Impact on Travel Behavior

The toll will provide an incentive to help overcome all the negative factors that keep people from forming carpools. Mr. Phegley is unable to take public transit, himself, because it is infeasible logistically and time consuming. However, a trolley or bus rapid transit route would appeal to Mr. Phegley, even if it took more time, as long as it allowed him to use that time better.



Effectiveness in Moving People

Mr. Phegley doesn't know whether the managed lanes would move more people than regular carpool lanes. He thinks congestion would be reduced on the main lanes, however, and that the benefits of ridesharing and using would be greatly enhanced.

Environmental Issues

Mr. Phegley is confident that the environmental impacts will be evaluated and appropriately mitigated if necessary. Overrides may be necessary if they cannot be mitigated.

Safety, Enforcement, and Related Operational Issues

Mr. Phegley's only concern in terms of enforcement is safety of the CHP and other drivers. That might mandate some vehicle identification system.

Operational Suggestions

Mr. Phegley suggests a good plan, including well-placed parking structures and implementation of convenient and well-designed and integrated shuttle services could contribute to a resolution of the congestion problem at Genesee and Campus Point, and could redesign the intersection. Scripps Hospital, in-patient and out-patient clinics, the major medical complex, as well as Light Rail Transit (LRT) station need to be part of the solution. How is all that going to be accommodated in that area? The Trolley crossing I-5? How do you avoid conflict? There are topographic constraints that have to be reckoned with, as well, associated with expanding the managed lanes to the south in future years. And the proposed trolley cannot cross through the line of the direct access ramp because there's not sufficient clearance, so it has to be elevated.

Mr. Phegley believes we need the origin and destination (O&D) and volumes to determine what would really be the best and most effective solution.

Pros

Mr. Phegley believes the lanes would literally add "manageability" to University employees' lives by helping to make the trip more predictable. Current University thinking is that HOV lanes and the direct access ramps are very compatible with some of the thinking in the community.

Project Concerns and Challenges

The University is concerned about how the managed lanes will affect the University's ability to operate, as well as the project's impacts on the character of the campus. Although University people will be using the facilities, Mr. Phegley doesn't want to see a situation that exacerbates transportation problems in the immediate area. While the University doesn't want to be perceived as being the negative force that prevented the project from happening, Mr. Phegley cautions against good intentions (i.e., building a direct access ramp to the University) that might result in a bad project. More information will be needed for the University decision makers to come to a sound decision.

Mr. Phegley indicated that the University is very concerned that traffic volumes coming to and from direct access ramps will be too high, adversely impacting campus traffic. Another constraining factor is that Voigt Drive, east of the freeway overcrossing, intersects with a city intersection at Campus Point and Genessee. That future traffic is



already projected to be very impacted. The additional trips may not be able to make it through the intersection and may queue on the freeway.

Another challenge is educating people about the lanes—both potential impacts and benefits, as well as how they will operate.

Environmental Justice Issues

Equity

Mr. Phegley views transportation facilities and transportation problems as factors that contribute to the economic operation and success of the entire region. Thus, in Mr. Phegley's view, anything that facilitates a better and more equitable economy should be a high priority. He believes the managed lanes would help by alleviating problems associated with access to jobs and affordable housing. Because the lanes will provide more mobility for everyone, he does not see an environmental justice issue.

Mr. Phegley believes that anybody can make the choice to use the lanes once or occasionally. If someone chooses to use it more, then it's an opportunity choice and the \$6 [example] toll serves as an incentive to choose behavior that allows people to avoid the toll.

Perceptions of Fairness

There will be concern about who's going to be able to afford, or perceived to be able to afford to buy their way into the system. Perceptions of unfairness will be associated mainly with income level, rather than ethnicity. Mr. Phegley also views fairness in terms of transportation connectivity. For example, one reason the University wants light rail to serve the campus is to provide a more seamless connection between campus and various communities, including minority communities.

Mr. Phegley believes that by time the managed lanes are built, the concept will be seen by all road users as an acceptable—and necessary—part of the modal option mix. The lanes will help people make more conscious trip choices. HOV lane users should be pleased, as long as they have access and have free flow conditions. Issues of HOV eligibility will be self-correcting as time goes on. Transit riders will have a favorable reaction because buses will enjoy the time advantage permitted by the lanes, and give bus riders a higher quality.

Mr. Phegley doesn't think San Diego commuters will be any different from interregional travelers in their perception of the lanes. Mr. Phegley suggests that rather than looking at truckers, we look at goods movement, there's a differentiation. He explains that there's already a high value/high time factor in goods movement, and that this means there's some opportunity for pricing (e.g., Federal Express), as long as safety is considered.

Other Public Input

Underrepresented Groups

Mr. Phegley observes that residential neighbors always feel they're not involved, not adequately informed and that they don't have any say. Part of what UCSD's strategy is to keep people informed, at the least, because surprises are unacceptable to people in these matters.



Likely Sources of Project Support and Opposition

Mr. Phegley believes that project support will come, in general, from people who are already in the planning process. He believes there's a considerable amount of support that could be generated by educating people about the project and the future without the project. Opposition is likely to come from those concerned about growth in general, and who feel they can stop it rather than deal with it.

Proposed Survey Question

“What would it take to get you out of your single occupancy vehicle and how much thought have you given to this in terms of if there was an alternative –why do you need your car if you can get to point a to point b without a car, what do you need it for?”



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Armando Freire, President, Dimex Trucking
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 22, 2004

Dimex’s Role in Project Planning or Implementation

No role.

Perception of Existing and Future Corridor Mobility Conditions

During peak hours, conditions are horrible. Peak extends from 5:30 to 9:00 a.m. or 10:00 a.m. and 2:30 to 6:00 or 7:00 p.m. on weekdays, and the weekend peak seems to last all day.

Currently, Dimex has 27 trucks that Mr. Freire oversees. About 90 percent of its routes are cross-border at Otay Mesa. Its trucks are primarily destined for rail spikes and distribution centers on the north and east side of Los Angeles, so traffic and the price of fuel are key issues for the company.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Freire used the I-15 Express Lanes as a carpooler when he lived in Escondido.

Efficiency

Mr. Freire does not think the I-15 managed lanes are efficient. He thinks they are wasted space, even with the buy-in option. He believes a better solution would be to remove the barrier, gain the space taken up by the barrier and convert all of that to possibly three lanes of additional general purpose lanes.

Fairness

Fairness is not an issue for Mr. Freire in this regard; the wasted space is a bigger concern.

Applicability to I-5 Corridor

Mr. Freire would not favor an I-15 style facility on the I-5 Corridor. “We need pavement, not projects.” He thinks a better example is the Coronado Bridge application, where all lanes can be directed to accommodate strong directional traffic flow.



Project Concept & Operations Pros and Cons

Current Community Issues

The trucking community cares about freeway operations because of safety. With the current environment, 80,000-pound vehicles and 5,000-pound vehicles share the roadway. The latter don't take into account the unpredictability of the 80,000-pound vehicles. Also, the border may increase to 20,000 moves per day, from 5,000-6,000 today. Between 96-98 percent of that volume goes over the roads. Truck lanes on I-5 or I-15 aren't a good idea either. Trucking is further limited by the hours of operation at the border. Mr. Freire's drivers prefer to leave around 3:00 or 4:00 AM, and arrive in Los Angeles by 5:00 or 6:00 a.m. That would put them returning south at 9:00 or 10:00 a.m.. Borders are open from 6:00 a.m. to 8:00 p.m., but the actual movement of goods is 7:00 p.m. to 7:00 a.m.

Priorities for Use of Managed Lanes

Buses should have top priority, then cars. The only purpose of having trucks on the lanes would be for safety. But off-peak use wouldn't provide much of an advantage. Emergency vehicles should be allowed at no charge, but not clean air vehicles—they serve a different purpose.

Managing Demand: Access vs. Tolls

Mr. Freire thinks that if Caltrans were going to block access physically, there would be disruption to travelers' expectations, and that therefore, it is preferable to use tolls to manage demand.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Barriers should be physical. Mr. Freire observes that nobody obeys the painted barriers, and they are not as safe as physical barriers.

Number of Access Points

This is an engineering question.

Operating the Lanes: Ingress/Egress Priority

If truckers aren't allowed access, it is of no concern. However, the more traffic that can be separated into different merge streams, the better.

Signage and Toll Information

Mr. Freire believes the I-15 facility is well signed, and that Caltrans generally does a good job with signage on the freeways.



Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Mr. Freire already thinks people pay way too much, and wants government to stop robbing the highway funds. Carpool lanes should be for carpools only. If people want to pay to use them as solo drivers, he believes they should be allowed, but he doesn't like the idea.

Use of Toll Revenue

Revenues should go to concrete—highways, not transit. Keep the money in the SR 905, I-8, I-5, and I-15 corridors, not SR 94. Revenues should support freeways connecting to Los Angeles and the rest of the country.

Mass transit only works in concentrated areas. Bus rapid transit would only be effective if it were connected to a distribution network at origins and destinations. “If you put one dollar into a bus and it's only 30% full, that's not effective.”

Managed Lanes' Likely Impact on Travel Behavior

Mr. Freire thinks that as long as we support sprawling housing patterns, we're not going to get changed travel behavior. He would like to give up his own car and take transit, but the origin/destination shuttle network doesn't exist. If he has to get in the car to get to the train, then he'll just take the car—since the trip requires a car for one segment.

Effectiveness in Moving People

The managed lanes would move more people than regular carpool lanes, but not as much as general purpose lanes.

Environmental Issues

None identified.

Safety, Enforcement, and Related Operational Issues

None identified.

Operational Suggestions

Make the lanes general purpose lanes.

Pros

If the freeways were expanded there would be benefit to truckers remaining on the main lanes. The down side is that there's new pavement from which trucks are excluded.

Project Concerns and Challenges

Truckers are concerned about the wasted space. The majority of the trucking industry would not use the lanes if they had to pay for that use. Truck customers won't pay for it, and truckers don't operate on a big enough margin to include a toll in their operating expenses. Public perception is that the truckers destroy the roads. What they don't understand is the excessive amount of taxes they pay for the road--\$2,200 to the state per truck per year, plus an additional \$650 in federal taxes. Add to that the taxes on



purchase of a \$140,000-\$160,000 truck, and trucks pay more than their fair share of taxes. The problem is that this money never finds its way to the roadways.

Environmental Justice Issues

Equity

Mr. Freire does not see an equity issue relative to value pricing on managed lanes.

Perceptions of Fairness

Mr. Freire notes that he's a member of an ethnic group, and does not have an equity problem with the concept. He also thinks that, while transit riders and carpoolers should be happy with the new managed lanes, everyone sitting in congested main lanes will wish there were simply more general purpose lanes. He imagines that interregional travelers would benefit from the lanes. Truckers, however, are not happy about HOV lanes generally, and few think they're a benefit.

Other Public Input

Underrepresented Groups

People who travel through the corridor should be involved in the decision, through town-hall meetings.

Likely Sources of Project Support and Opposition

Opposition will come from communities concerned about the widening itself, and from people who don't perceive the benefits of the project.

Proposed Survey Question

"If SANDAG built managed lanes on the I-5, would you use them?"



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Yolanda Jimenez, President, Lucar Trucking <i>Note: Two of Ms. Jimenez' drivers joined the interview and provided comments as well.</i>
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 16, 2004

Lucar Trucking's Role in Project Planning or Implementation

None.

Perception of Existing and Future Corridor Mobility Conditions

It's very stressful for the truck drivers because of congestion. They can't move, traffic is at a standstill. It's very heavy from 12 p.m. on. And it's been getting worse over the last couple of years. Road construction and maintenance (sweeping, for example) makes the problem even worse.

I-5 is a concern because it connects to the Los Angeles area, and Lucar Trucking does a lot of business with firms in that area. Having more access and lanes is a concern to her in her role as president of a trucking company. "How it's done is no concern—just get it done."

Awareness of and Existing Attitudes about Managed Lanes

Ms. Jimenez feels neutral about the I-15 FasTrak lanes.

Project Concept & Operations Pros and Cons

Current Community Issues

Not applicable.

Priorities for Use of Managed Lanes

Trucks will not likely want to use the lanes, so that is not a priority. They prefer staying on the outside lanes for reasons of breakdown and exit access.

Managing Demand: Access vs. Tolls

Using tolls is preferable to closing entrances and exits as a means of keeping the managed lanes uncongested.



Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Truck drivers prefer a physical barrier, because if they, for example, fall asleep, they'd rather run into concrete than a vehicle. However, when she travels in a passenger car, Ms. Jimenez prefers the painted barrier because she doesn't like the feeling of being closed in.

Number of Access Points

A four-to-seven mile distance between direct access ramps seems about right.

Operating the Lanes: Ingress/Egress Priority

Give priority to transit buses only.

Signage and Toll Information

Caltrans does a good job, generally, with signage. Ms. Jimenez thinks the I-15 FasTrak facility is well-signed.

Importance of Modal Choice on the I-5 Corridor

Ms. Jimenez has no choice about whether to drive or not, but would like to see more choice for people on the I-5 Corridor.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

Skipped question.

Use of Toll Revenue

Ms. Jimenez would like to see revenues go to help goods movement and commercial movement through corridor. It helps the economy. Trucks have to maintain their delivery schedule, and if not, they're often returned by the corporation, or they lose time waiting to unload.

Managed Lanes' Likely Impact on Travel Behavior

People won't change, except to choose what's best for them. We still drive. Carpooling is hard to find a match.

Effectiveness in Moving People

No opinion.

Environmental Issues

Ms. Jimenez is concerned about diesel and the smog. But don't go "too far overboard protecting butterflies."



Safety, Enforcement, and Related Operational Issues

Must trust Caltrans engineers on this issue.

Operational Suggestions

Although this is north of the project area, truck drivers would like to see another truck pull-off or place to turn around between Pulgas and Christianitos. Also, have longer merges for truck drivers.

Pros

Ms. Jimenez is in favor of the project if it increases travel speeds and reduces congestion for trucks, even if they don't use the lanes.

Project Concerns and Challenges

Ms. Jimenez is concerned about how long projects take to build.

Environmental Justice Issues

Equity

Ms. Jimenez feels there's not an equity problem as long as she can pay for it. She believes lower income people will feel it's unfair because they can't pay but they still pay taxes. A mitigating factor is that at least the government is trying to give us options in this case.

Perceptions of Fairness

Although Ms. Jimenez thinks some members of ethnic groups will try to make it an ethnic group issue, she thinks fairness problems, to the extent they exist, are income related.

Most road users should be happy with the managed lanes. The carpoolers get two carpool lanes; the transit riders get quicker transit, and truckers will be happy because there will be more traffic in the center lanes, out of their way.

Other Public Input

Underrepresented Groups

None identified.

Likely Sources of Project Support and Opposition

People who think government spends money for no good reason are likely to oppose the project.

Proposed Survey Question

None identified.



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Mr. James R. (Ron) Popham, Director of Maritime Services Unified Port of San Diego
	Stuart A. Farnsworth, Esq., Maritime Program Manager, Maritime Division, Unified Port of San Diego
Also in attendance:	John Duve, SANDAG
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 22, 2004

Port of San Diego's Role in Project Planning or Implementation

The Port is working with SCAG and Caltrans District 7 and with the federal government to develop a Southern California Gateway Freight Plan, trying to get some federal dollars to deal with goods movement, and that should gel with SANDAG's plans for the I-5 Corridor. The Port of San Diego is the mouth for freight that goes to the eastern part of the U.S.

Perception of Existing and Future Corridor Mobility Conditions

Conditions are worsening rapidly. Mr. Farnsworth moved to the area in 1995, and the commute from Encinitas that used to take 20 minutes now takes 50 minutes, more than doubling the commute time in nine years. Traffic will get worse before it gets better. The HOV lanes should be continued all the way to the SR 78 interchange. The I-5/I-805 construction impacts were worse than the SR 56 impacts, on I-805.

The Port is concerned about the freeways in general, and ultimate end user costs—which is sometimes equated to time. Congestion at the terminal limits moving product off ships onto trucks and out of the Port area. Mr. Popham discovered a lot of cargo going to Mexican ports is designed to have the ship come to San Diego. Marketing is needed to direct that cargo to San Diego and take the trucks off the road. Just one truck carries 15,000 tons of cargo. The managed lanes concept makes sense to control travel time.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Popham used the I-15 Express Lanes as a carpooler once.



Efficiency

Mr. Popham believes the lanes are effective, using the SR 73 toll road in Orange County as his reference.

Fairness

It's fair, because it's a premium that is entirely optional.

Applicability to I-5 Corridor

Mr. Popham is generally in favor of the managed lanes concept. He thinks the business user would be happy since, "Time is money."

Project Concept & Operations Pros and Cons

Current Community Issues

While a lot of the cargo goes south, there's still about 30-40 percent that goes north on I-5 and I-5 to Los Angeles. The idea now is that LA/Long Beach ports are too crowded, so the Port of San Diego gets the spillover. Currently San Diego is handling seven million tons. By 2020, that will be 25 million tons. The spillover effect could add even more to that, and all of this has implications for freeway mobility needs.

Priorities for Use of Managed Lanes

Allowing trucks to use the lanes off-peak at no toll would be supported.

Managing Demand: Access vs. Tolls

Whatever works best for efficiency of operation should be adopted.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

The barrier is an important consideration, since physical barriers provide the perception of safety for passenger vehicles and they can accommodate lane-keeping technologies within the barriers themselves. It's very easy to have alerts inside the trucks, and in the long range, to include automated guidance system. The trucks could go up in rubber-wheeled trains, essentially.

Number of Access Points

No opinion.

Operating the Lanes: Ingress/Egress Priority

Signage and Toll Information

No opinion.



Importance of Modal Choice on the I-5 Corridor

Providing options for goods movement on I-5 goes to providing fundamental efficiency on the system.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

The \$6 fee could be passed on, and might be worth it to truckers if they're in stop and go traffic, since their operational costs are high. However, whether the toll is indeed worth it depends on whether the system as a whole is designed to support more efficient goods movement. For example, the border doesn't open until 8 a.m, and by then, the trucks are lined up and waiting to go through, so managed lanes won't help that problem. The Port is not necessarily affected by this, but truckers in general are.

Use of Toll Revenue

No opinion.

Managed Lanes' Likely Impact on Travel Behavior

No opinion.

Effectiveness in Moving People

No opinion.

Environmental Issues

No opinion.

Safety, Enforcement, and Related Operational Issues

Physical barriers will increase passenger vehicle drivers' sense of security.

Operational Suggestions

A critical piece for the Port is the I-805 traffic, after the completed SR 56 and the traffic dumping off SR 52. The "S" curve in downtown San Diego and the 94, all of these interchanges are overloading I-5. Another issue is the possibility that the Port pushes up its traffic to 32nd Street, to I-15, to I-805, and I-5 for the trucks leaving the Port.

Pros

The lanes would provide options for drivers, and even if trucks can't use them, they can benefit from new capacity

Project Concerns and Challenges

Too bad the lanes don't extend farther south.



Environmental Justice Issues

Equity

The fairness of value pricing is not a forgone conclusion, but on the other hand, society charges for all goods, and it will improve everyone's quality of life by improving throughput. The Port is getting pressure from neighbors on the air quality issues related to diesel, and that will slow its growth.

Perceptions of Fairness

If the trucks could use the lanes at certain times with no toll, or if they could offset the toll as a credit against the federal gas tax, some trucking firms might use the lanes. Most trucks will not go out of the way 20 miles, or spend an extra 20 minutes if they can avoid it, so the tolls may seem very fair as an alternative. However, not all firms can afford it.

Other Public Input

Underrepresented Groups

"Freight doesn't vote," observes Mr. Popham. SANDAG responds to voters when it develops policy, and this tends to be more responsive to passenger vehicle needs. SANDAG should be designing facilities that accommodate the needs of all roadway users.

Likely Sources of Project Support and Opposition

There shouldn't be major opposition, because the lanes will benefit everybody. Possible concerns from environmentalists.

Proposed Survey Question

"How important is it to you that your daily goods arrive at the store? If you knew that there would be fewer trucks on the roads during peak and that your stores would be more efficiently stocked? Would you be willing to allow **exclusive** use of the managed lanes by trucks during off-peak hour? One lane? Would you be willing to allow them at off-peak with no toll? Or a toll that would be reimbursed through federal gas tax rebate?"



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Dan Beal, Managing Director, Public Policy, Southern California Automobile Club
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 8, 2004

Auto Club's Role in Project Planning or Implementation

Mr. Beal hopes that the Auto Club will have input into the planning in order to represent club members' interests. He indicated that the Auto Club would be happy to be part of an educational component, helping to tell people what they could expect from the lanes, what the benefits are, and how to use them.

Perception of Existing and Future Corridor Mobility Conditions

Mr. Beal stated that current conditions on I-5 in North San Diego County are "pretty bad." Congestion is so bad, in fact, that when his daughter drives up to LA County from San Diego, he joked that, "Sometimes we don't know if she'll be arriving for dinner or breakfast." He believes the corridor is frequently at the tipping point for congestion—often experiencing severe stop-and-go traffic.

For Auto Club members, traffic congestion is a quality of life issue. "That's what we hear more than anything else. They know the symptoms, if not the Texas Transportation Institute numbers. They're telling us that congestion is a waste of time, and that it costs wear and tear. They don't feel like much is being done to make it better. They are also supportive of options, and are willing to pay for options to some extent. For example, five percent or less of travelers use transit, but most people don't have heartburn spending the money to provide those options, or other alternatives such as walking and biking. Auto Club members are, however, very negative about the Proposition 42 rip-off."

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Beal knows about them, but doesn't drive in the vicinity often.

Efficiency

Mr. Beal believes they probably do provide an efficient mobility option for travelers. Mr. Beal is somewhat equivocal about the efficiency because on the SR 91 there wasn't really a full analytic comparison of a general purpose lane alternative. Still, he believes that as an option to manage lanes, pricing does have some promise, and that they ease congestion on non-tolled lanes



Fairness

In a market sense, Mr. Beal thinks the I-15 Managed Lanes are fair enough. “If you have a need to pay for them, you pay for them. If you don’t want to, or can’t, you don’t.” Mr. Beal thought that the I-15 was the only facility that has a LOS threshold (was C and now D) Mr. Beal did not know whether the lanes were equitable in a societal sense. Freeing up non-tolled lanes provides a benefit to non-paying motorist in the general lanes.

Applicability to I-5 Corridor

Mr. Beal thought an I-5 demonstration project was warranted, though he stressed that he believes the entire concept really still is in the demonstration phase—it is not yet an entirely proven tool. As such, he stated, “I think we might make a mistake if we apply such a limited case more broadly.”

Project Concept & Operations Pros and Cons

Current Community Issues

Mr. Beal thought that environmental issues might arise. “Paint it how you want it, it’s a widening. It’s noisy, closer to land uses. It’s a tradeoff between alternative uses.”

Priorities for Use of Managed Lanes

Mr. Beal stated that encouraging HOV was a “no brainer.” He supports preference for longer distance transit, vanpools, and carpools. In fact, if the lanes don’t encourage formation of carpools and vanpools, there is a problem with the policy.

Allowing trucks in the managed lanes presents a problem, since the lanes need to be designed for that to begin with. Mr. Beal doesn’t think trucks could safely cross four or five lanes of traffic—they’d have to have their own ramps.

In his Auto Club role, Mr. Beal supports the notion of free access for emergency vehicles, including Auto Club tow trucks.

Mr. Beal thinks it’s inappropriate to allow clean air vehicles to use the managed lanes at no toll, since they also contribute to congestion, and do not seem to require incentives to sell.

Managing Demand: Access vs. Tolls

Which is preferable to avoid congestion on the managed lanes---limiting access, increasing tolls, or combination? I can’t see paint and tolls in the same project. Too much unregulated egress. I’ve seen people run through the stanchions on the SR 91 to cheat the reader. The lanes must have limited ingress/egress. They also have to provide two travel lanes each way – one lane is too easily disrupted.

Access/Ingress/Egress

Mr. Beal believes that direct access ramps should be provided for transit, carpools and paying SOV’s. However, Caltrans will have to consider the problem of solo drivers using park and ride lots and bypassing queues.

If lanes overload, the access may have to be able to be closed at specific locations. However, a physical barrier could be a problem—surprising someone who was used to



getting onto the lanes at the location. Mr. Beal does not like the painted barrier concept. He suggests that rubber poles could be provided as breaks to permit vehicles to get in to emergencies, if hard barriers are used.

Mr. Beal prefers less frequent access points. “More access equals more weaving, more short-distance users, more card readers and more complicated billing. Access points should be no closer than every three or four miles, and should be spaced to encourage for longer trips.”

With respect to permitting preferential merge lanes, he thinks people should just recognize the need to merge back into the general lanes, and be happy with the time they’ve saved already.

Signage and Toll Information

Mr. Beal thought the signing on the I-15 Managed Lanes seemed to be effective.

Reaction to Example Toll Level:\$6 for Minimum 24 Minute Trip Time Savings on Entire 26-Mile Facility

Mr. Beal’s response was “Sounds like a deal to me, given the time savings. What’s your time worth to you?”

Use of Toll Revenue

Mr. Beal points out that the toll “brings up a conundrum—to change behavior you will probably have to charge enough to bring in revenue in excess of capital and operating costs. He thinks they should return the money to the corridor it is collected from improve the driving experience. It should absolutely not go to the general fund. Mr. Beal thinks the first priority is to pay off the bonds to build the facility. Other possible uses include transit and road maintenance in the same corridor.

Managed Lanes’ Likely Impact on Travel Behavior

Naturally, the impacts can include everyone who drives, including Auto Club’s 5.5 million members in Southern California. Mr. Beal thinks the I-5 is probably a likely corridor to do change behavior in response to travel options that include pricing. “There aren’t any other options. Either I pay, or I carpool.” He added that the mix of modal choice on the I-5 corridor needs to include “fairly intensive transit.” On the other hand, Mr. Beal thinks the lanes might have the adverse effect of encouraging longer distance commuting.

Effectiveness in Moving People

As for effectiveness, it remains to be seen whether the Managed Lanes will move more people than regular carpool lanes or main lanes.

Perceptions of Fairness

Mr. Beal thinks that some I-5 main lane users might not have a problem with the lanes as long as they, too, have the option to use them. Some, however, “might be pretty upset. If I’m not over there because I don’t have a transponder, and the lanes don’t accept cash and it’s inconvenient, it may be a problem.”

HOV lane carpoolers might be upset if they were used to using HOV lanes for free and the new paradigm requires a fee. They might feel, “Hey, I’ve been doing the right thing and now you’re charging me!” It depends on the policy adopted.

Transit riders are not paying for the majority of the trip's cost anyway. "If a BRT trip costs \$3 I'd be pretty happy." Truckers probably won't want to use the lanes—weaving through traffic to access them and speed differentials between cars and trucks would be a problem. But they might be happy about congestion reduction in the main lanes.

The issue of regional vs. through travelers has more to do with the requirement for transponders than trip origins and destinations, because without a transponder, you're frozen out of the lanes. This issue might be resolved in the future by in-car GPS systems.

Environmental Issues

Not applicable to Auto Club membership focus, though there will be concern from environmentalists.

Safety, Enforcement, and Related Operational Issues

Mr. Beal is not in favor of a painted barrier, and warned against too frequent ingress/egress. He identified the need for special enforcement zones to accommodate the CHP's need to pull someone over. "You don't want the CHP traveling for four miles with their lights on." There must be breakdown areas, and access to service vehicles and staging areas for them to operate.

Pros

It's an additional set of tools to manage the congestion on the road. Maybe managed lanes can serve as an emergency lane for evacuations—turn them all northbound or southbound, if needed. The lanes could also be reconfigured to accommodate different uses in the future. High capacity rail might work in the future, or perhaps they could be converted to general purpose lanes, if that's what the future needs. There's flexibility. Mr. Beal pointed out, "It's lower cost to widen now than 30 years from now. There's flexibility. Maybe they even become truck lanes. Whatever the best mix of uses in the future, you've got it. If managed lanes are what sells that, then fine."

Project Concerns

Mr. Beal says we must always ask whether the managed lanes represent the best possible use of the capacity compared to alternatives. Too, there are the equity issues. "Regardless of reality, there's the perception of have and have-not. As long as those who can't pay have alternatives, it's reasonable. But if there was then an attempt to use this as a stalking horse for a full corridor priced scenario, we [Auto Club] might have a problem."

Environmental Justice Issues

Regardless of previous studies indicating minimal "real" equity issues, Mr. Beal believes that there is an equity issue to be addressed. This is true despite the fact that the myth that low income people do not value their time has been dispelled. Everyone's time is valuable. People make choices about how they're going to use their money vs. their time. Mr. Beal doesn't think the issue is related to ethnicity as much as it is to income, though those two variables are interrelated.

Mr. Beal believes that it is the highway users themselves who don't get asked for their input very much or very often, especially at the community level.



Other Public Input

Likely Sources of Project Support and Opposition

People who think that every lane should be open to everybody will oppose the managed lanes, and those who think we should all be walking or biking or using transit may oppose the increase in road capacity the project represents.

Proposed Survey Question

Mr. Beal would like to know what peoples' tipping points are—when would they be willing to increase what they pay for transportation, and how. The survey needs to ask people, “If you accept that we don’t have enough resources, would you rather pay a toll, pay through property tax, sales tax, gas tax? Seek money from developers or Indian gaming? If you don’t like this, what do you like?”



I-5 North Coast Managed Lanes Value Pricing Planning Study

Interview participant:	Hasan Ikhata, Director of Planning Southern California Association of Governments (SCAG)
Interview conducted by:	Deborah Redman, Redman Consulting
Interview date:	November 30, 2004

SCAG’s Role in Project Planning or Implementation

SCAG is the MPO [Metropolitan Planning Organization] for all of Southern California except San Diego County. SCAG is concerned about how SANDAG’s facility will connect to what is being planned in Orange County. SCAG also is required to meet legal and planning tests with respect to air quality conformity, as well as Title VI Environmental Justice requirements. In addition, SCAG’s Regional Council has required a number of performance standards to be met. So if connectivity is important, SCAG and SANDAG should be in communication now. For example, Riverside County is planning four lanes going down to San Diego on I-15—and that will have to be coordinated with SANDAG if bottlenecks are to be avoided. On I-5, unfortunately, Orange County Transportation Authority (OCTA) is facing a lot of funding constraints. In short, the role for SCAG would be to help coordinate Orange County and San Diego County plans for the I-5 Corridor as a whole.

Perception of Existing and Future Corridor Mobility Conditions

In the peak period, the lanes are in failure. It’s LOS F, and this is expected to get worse by a great factor over the next 25 years. SCAG is concerned about environmental issues, especially air quality associated with traffic on I-5. North/south goods movement is another issue of importance, along with housing affordability and the implications for traffic patterns.

Awareness of and Existing Attitudes about Managed Lanes

Familiarity

Mr. Ikhata is familiar with value pricing as a concept, and with the local examples of pricing. He used the I-15 FasTrak lanes as a carpooler to attend the bi-state meeting in Tijuana.

Efficiency

The lanes absolutely provide an efficient mobility option.

Fairness

The lanes are fair in the sense that if you value your time you are free to pay to save it—if you have the means. Mr. Ikhata does think there are some environmental justice



issues and that if the lanes are paid for by taxes, tolling them (even though designed to managed demand) gives at least the appearance of unfairness. This could be corrected to some extent by how and when SANDAG prices the lanes.

Applicability to I-5 Corridor

Mr. Ikhata is in favor of a pricing strategy on I-5, and joked, “I hope it gets built while I’m still able to drive.”

Project Concept & Operations Pros and Cons

Current Community Issues

Anytime an agency discusses projects that increase capacity, there will be community opposition. This should be confronted directly, and attempts to bring communities together to solve identified problems should be made early on.

Priorities for Use of Managed Lanes

Priority should be accorded to those vehicles with highest to lowest occupancy. Solo drivers should receive the lowest priority. Emergency vehicles should be allowed at no toll, as should clean air vehicles, at least on a temporary basis. Mr. Ikhata favors opening HOV lanes and managed lanes to all traffic, at no tolls during the off-peak periods.

Managing Demand: Access vs. Tolls

Combining tolls with physical access constraints is the way to approach the problem. The average trip length in that area of the I-5 is much shorter than the regional average, so you cannot limit access without constraining people’s opportunity to use the lanes.

Traffic should never be permitted to become congested on the managed lanes. SANDAG and Caltrans 11 will have to do what needs to be done. However, they should keep in mind that speeds of 55 or 65 MPH might not be necessary during peak, when even a 40 MPH steady flow would give people the reliable trip that surveys show they want as the highest priority.

Access/Ingress/Egress

Painted Barriers vs. Physical Barriers

Mr. Ikhata feels that the visual impacts of a physical barrier make it undesirable, and that they can often increase, rather than reduce the potential for accidents.

Number of Access Points

Access at every four to seven miles seems reasonable.

Operating the Lanes: Ingress/Egress Priority

All entrances should be open to all eligible facility users—otherwise it may be too confusing to me. Mr. Ikhata sees the logic in trying to allow longer merges for priority



vehicles (transit buses) but because right-of-way is so precious, he believes it may be complicated, if not entirely unfeasible.

Signage and Toll Information

For infrequent users, the I-15 FasTrak signage is very confusing. It's not very frequent, and it doesn't explain where to get off. Mr. Ikhata hopes that by time the more complex I-5 managed lane facility opens, that IT solutions will permit fewer signs with more information.

Importance of Modal Choice on the I-5 Corridor

Choice is very important, and is too limited now. Metrolink and Amtrak are infrequent (in SCAG's area) and people are forced to use the freeway.

Reaction to Example Toll: \$6 for Minimum 24-Minute Peak Time Savings on Entire 26-Mile Facility

This is "very much worth the price." When SCAG conducts performance evaluations, it looks at time savings on a societal basis. Out-of-pocket costs for individual users are compared to the value time saved, valued at about \$6 per ten minutes. At that rate, some would find it beneficial to pay even double the sample toll described here. Most people are under so much time pressure that at some time, it would seem like a very good idea.

Use of Toll Revenue

Tolls should be used to correct for societal problems and environmental impacts, and addressing EJ issues—not simply building more freeways.

Managed Lanes' Likely Impact on Travel Behavior

The biggest impact (aside from the fact that the lanes would make life easier for people paying a toll) is that people who drive the regular freeway lanes will come to understand the value of mobility. That educational process can help build a constituency for transportation improvements. And it helps people come to the realization that we can't provide mobility for six million people. If people want new freeways, they have to pay for it. If not, then intense focus needs to be paid to public transportation.

Effectiveness in Moving People

The managed lanes will move more people than either regular carpool lanes or main lanes.

Environmental Issues

Mr. Ikhata thinks the project will benefit air quality, especially if it allows clean fuels to use the lanes at no toll. It can also help build the infrastructure for clean fuel vehicles. There are also likely to be visual and noise impacts with competing mitigations (i.e., noise walls create visual impacts).

Safety, Enforcement, and Related Operational Issues

Violators should be ticketed with both a moving violation and a pricing penalty.



Operational Suggestions

Caltrans District 11 can figure it out.

Pros

Maximizes capacity of the system.

Project Concerns and Challenges

None identified.

Environmental Justice Issues

Equity

Equity is a real issue. Who pays and who benefits is something that both public and private sectors need to consider. However, the issue is larger than “rich people can pay”—because the lanes offer benefits to transit riders and carpoolers, and even to main lane users who will see some increased capacity on the untolled lanes.

Perceptions of Fairness

The impacts likely fall on income, not ethnicity. Unfortunately, there is a strong connection between ethnicity and income, as well.

I-5 main lane users who decide (whether regularly or occasionally) to use the managed lanes as toll payers will experience great relief. It's also a big step in the right direction to fixing the “empty lane syndrome” that is sometimes real, and sometimes only perceived, relative to HOV lanes. And it may comfort main lane users that “somebody's finally listening and providing solutions.” Commuters from outside the region and within the San Diego area are likely to experience the lanes similarly. Truckers, too, will enjoy some amount of benefit from getting vehicles off the lanes they use. Carpoolers, vanpoolers and transit riders are likely to be happy with the lanes, although when the lanes reach capacity and eligibility changes, there may be some difficulty.

Other Public Input

Underrepresented Groups

Transit users are frequently underrepresented, along with most of the typically targeted EJ groups. There is overrepresentation from the highway advocates. The public at large is also underrepresented, and they rarely come to meetings.

Likely Sources of Project Support and Opposition

Communities along the alignment might perceive that increased access to their communities increases crime, traffic and graffiti, and thus oppose it. Civil rights groups might object to the lanes as an EJ issue. And there will be the “Drivers for Highway Safety” types that will favor it, especially as the lanes impact and connect to Orange County. Labor and concrete industry will be for the lanes. Many environmentalists have also come out in favor of value pricing as a tool for managing demand.



Proposed Survey Question

“Would it be worth it to you to pay \$6 to travel 40 miles per hour for 26 miles? Do you think your property values would go up or down [for those who live along the alignment]? What air and noise impacts from the facility would you perceive?”

Mr. Ikhata also suggests that a sufficient set of demographic questions be asked to help planners understand people’s expressed opinions.



APPENDIX C

I-5 NORTH COAST MANAGED LANES

FIRST ROUND PARTICIPANTS:

FOCUS GROUPS 1 & 2



Participants Focus Group 1

Dana

- Female, under 30, works full-time, uses freeway 7 days/week, zip 92075
- Lives in Solana Beach
- As a sales rep travels a lot
- Drives alone
- 26 mile commute one-way
- Has flexibility in schedule to avoid traffic
- Chose where to live partly based on freeway congestion
- Concerns about pollution in fields near the freeway

Mark

- Male, age 30-45, works full-time, uses freeway 7 days/week, zip 92014
- Lives in Encinitas Ranch
- Works in Del Mar
- Self-employed attorney
- Considers I-5 as “second home”
- Trip length generally about 12 miles, and takes 15-30 minutes depending on traffic
- Has flexibility in schedule to avoid traffic
- Often travels to Coronado and LA

John

- Male, age 45+, works full-time, uses freeway 5+ days/week, zip 92054
- Lives in Oceanside
- SD native
- Works in construction so travels all over the county for work
- Recently been commuting to Carlsbad
- Tries to start out before traffic
- Carpools with coworkers sometimes



Julieann

- Female, age 30-45, works full-time, uses freeway 6 days/week, zip 92009
- Lives in South Carlsbad
- San Diego native
- Commutes to San Diego for work
- Carpools regularly with husband
- Used to ride Coaster regularly, loved it
- Commute takes about 40 minutes in the morning, 1 hour in afternoon

Gregory

- Male, age 45+, works part-time, uses freeway 5 days/week, zip 92054
- Lives in Oceanside
- Travels to Del Mar for work
- Leaves as early as possible to avoid traffic (5:00 am)
- Carpools with wife but would prefer not to, likes independence of leaving when he wants
- Takes about 35-45 minutes in the morning and 45 min-1 hr in afternoon

Randolph

- Male, age under 30, works full-time, uses freeway 3+ times/ week, zip 92054
- Lives in Oceanside
- Works in Carlsbad, San Diego and Irvine
- Has three jobs
- Leaves home at 4:30 am
- Concerned about smog at the intersection of SR 78/SR 76/I-5, also noise pollution and accidents

Jeff

- Male, age 30-45, works full-time, uses freeway 7 days/week, zip 92130
- Lives in Carmel Valley off Del Mar Heights Rd
- Works in Mission Valley
- Used to work at base on Coronado
- Commute is 25 miles one-way
- Drives alone
- Tried Coaster and carpooling but it did not work for him because of limited schedule
- Concerns about the SR 56 connector increasing crime in his neighborhood and about traffic causing more cars to sit on the freeway and idle, causing pollution and wasting resources



Participants Focus Group 2

Emile

- Male, age 30-45, works full-time, uses freeway 4 days/week, zip 92009
- Lives in Carlsbad near La Costa Country Club
- Works as software developer so has irregular schedule
- Drives to Encinitas, Oceanside, Birmingham
- Drives alone mostly
- His commute is about 10 minutes, 6-7 miles, it is a reverse commute
- Usually drives more on weekends now
- Tries to avoid busiest traffic times if going downtown or far south
- Chose to live close to I-5 because it provides easy access and is closer to the ocean

Evelyn

- Female, age 45+, works full-time, uses freeway 5 days/week, zip 92130
- Lives in Carmel Valley, uses new highway, SR 56
- Works in at VA medical Center
- Commute is about 7 miles which takes 20-25 minutes in the morning and over 30 minutes in afternoon
- Has flexibility in schedule to avoid traffic
- Believes more traffic now that 56 opened
- Has had jury duty for past 7 weeks, she has been carpooling. Not due to carpool lane but for ½ price parking and gas and social reasons.
- Concerned about hearing traffic noise in the morning, she lives about 2-3 miles from freeway.

David

- Male, age under 30, works full-time, uses freeway 5+ days/week, zip 92009
- Lives in Solana Beach
- Uses Villa de la Valle entrance
- Commutes to Miramar Rd in Mira Mesa
- Has fixed schedule so can't plan around traffic
- Drives alone because he needs his car at work
- Can see the freeway from his house, lots of road noise



Robert

- Male, age 30-45, works full-time, uses freeway 3 days/week, zip 92014
- Lives in Del Mar
- Works at home, doesn't commute to work, has irregular usage patterns
- Thinks about traffic before planning a trip especially because of events such a racetrack
- Concerned about noise of freeway, also used to be a problem for crime, but now it is not an issue for him, but he thinks it may be for others.

Chris

- Male, age 30-45, works full-time, uses freeway 5 days/week zip 92054
- Lives in South Oceanside
- Travels to Carlsbad Palomar for work 8-5, Monday through Friday
- Does not have a lot of flexibility in schedule
- Drives alone to work
- Concerned about the effects of traffic on local streets of people trying to avoid congestion on freeway

Andrea

- Female, age 45+, works full-time, uses freeway 5 times/ week, zip 92075
- Lives in Poinsettia/La Costa
- Works on San Diego on Normal Street
- Her commute is about 26 miles one-way, it takes 30 minutes to an hour
- Morning traffic used to be lighter, but now mornings are worse than afternoons
- Drives alone because husband has different hours
- Can hear freeway noise at home, but can't tell it from the ocean

Richard

- Male, age 45+, works full-time, uses freeway 5 days/week, zip 92054
- Lives in Oceanside
- Drives to Carlsbad, Clairemont Mesa, El Cajon for work
- Generally using freeway from early morning to early afternoon
- Never know when there will be traffic, so gives himself extra time
- Always thinks about traffic before leaving



APPENDIX D

I-5 NORTH COAST MANAGED LANES

SECOND ROUND PARTICIPANTS:

FOCUS GROUPS 3 & 4



Participants Focus Group 3

Lori

- Female, age 45+, working part-time
- Leucadia Blvd exit
- Travels I-5 all times of day, six days per week
- Uses I-5 to go to work twice per week (3-4 miles), driving kids, shopping
- Oceanside to La Jolla is usual route
- Says “I-5 and I are best friends”
- I-5 congestion has gotten horrible in last two years
- Vaguely familiar with I-15 express lanes

Ron

- Male, 45+, retired
- Via de la Valle, Solana Beach
- Does not travel often during rush hour
- Usually 30 minute trips
- Carpools on Mondays, drives with grandson on Fridays
- Congestion has gotten a lot worse in last two years
- Familiar with I-15

Stephen

- Male, 45+, retired
- Via de la Valle, Solana Beach
- Doesn't go downtown much, but occasionally goes to Home Depot and the airport
- Usually six to eight mile trips
- Traffic has gotten a lot worse going north
- Does not regularly use I-15

Charlene

- Female, 30-45, full time student at UCSD
- Del Mar Heights, Carmel Valley
- Can avoid rush hour when planning travel
- Often takes the coast route to avoid I-5
- Noticed a 50 percent increase in congestion in past two years
- Sometimes carpools with roommates
- Used I-15 Express Lanes once, saved her one hour



Leo

- Male, 45+, works full time
- Birmingham Drive
- Office in Carlsbad also telecommutes
- Takes surface streets if I-5 is awful
- Usually drives alone
- Regular commute is 10-15 miles
- Goes to Orange County once a week for work
- Believes traffic is not so bad if you avoid the merge
- Hasn't used I-15

Terry

- Female, 30-45, works full time
- Via de la Valle, Solana Beach
- Carlsbad to La Jolla is regular drive
- Uses I-5 freeway a lot for work, errands, shopping
- Carpools 80 percent of time when not going to work
- Judges whether to take roads or freeway
- Has noted an improvement in congestion at the on ramps due to end of construction
- Has never used I-15

Ryan

- Male, under 30, works part time
- Lives and works in Solana Beach
- Doesn't use I-5 to travel to work but is student and takes I-5 to school twice a week
- Not too much traffic on I-5 at that time
- Thinks traffic has gotten better around Del Mar Heights
- Does not use I-15



Participants Focus Group 4

Neil

- Male, age 45+, works part-time
- Manchester or Leucadia
- Uses I-5 at random times, usually not rush hour
- Either alone or carpools
- One third of time going from Encinitas to La Jolla, or Airport
- 10% of the time going to Los Angeles
- Thinks traffic is the same as 2 years ago
- Does not use I-15

Christine

- Female, 30-45, works full time
- Via de la Valle
- Uses I-5, five days per week Monday through Friday
- Travels a lot, meetings in different areas, drives from Oceanside to LA
- Drives alone primarily
- Commute is usually 35 minutes one-way
- Area has gotten 20% more congested in two years
- Does not use I-15

Antonia

- Female, 30-45, works full time
- Via de la Valle
- Travels throughout corridor every day, mostly drives alone
- Congestion has gotten 10 percent worse
- Has used the I-15 Express Lanes

Kevin

- Male, 30-45
- Via de la Valle to Palomar twice a week
- Los Angeles once or twice per month
- Usual commute is 30 miles each way
- Drives alone
- Uses Caltrans' Web site to decide when to leave home
- Congestion is 30 percent worse than two years ago



Joseph

- Male, <30, works full time
- Works Monday – Friday in different locations, and different times
- On and off I-5 all day
- Usually relatively short trips
- Notices congestion all times of the day

Joe

- Male, 45+, retired
- La Costa, Leucadia
- All times of the day on I-5
- Each trip is about 30 minutes each
- Travels alone or with spouse
- He and wife chose jobs based on location
- Tries to avoid traffic
- South is heavier than North
- Interstates 5/805 split has gotten better going north
- Never seen express lanes on I-15 open

Jonathan

- Male, 30-45, works full time
- Via de la Valle, Encinitas
- Uses I-5 seven days a week, 40-60 miles per day
- Usually drives alone
- Has noticed a huge increase in traffic, rush hour starts earlier last longer
- Traffic 15 percent heavier than two years ago
- Has used express lanes on I-15, but doesn't like that you can't get off until Escondido

Phil

- Male, 45+, works full time
- Leucadia to Carlsbad
- Used to drive from Leucadia to OC for work
- Now commute five times a week, about 10 miles each trip
- Usually drive alone
- Used to carpool half the time when drive to Orange County
- More pleasant to have someone in the car and you can take carpool lane
- Same level of congestion as two years ago
- Has taken I-15 in the past



Joseph

- Male, 45+, works full time
- State Route (SR) 76 to La Jolla
- Commutes five times per week
- Drives alone
- One hour each way or more
- South in the morning is more congested from La Costa to SR 56
- North bottleneck at Villa de la Valle



APPENDIX E

I-5 NORTH COAST MANAGED LANES

FIRST AND SECOND ROUND DISCUSSION GUIDE

FOCUS GROUPS 1, 2, 3, & 4



I-5 North Coast Managed Lanes Focus Group Discussion Guide – Round One

OBJECTIVES

- Determine travelers' perceptions of current traffic conditions and transportation planning alternatives
- Explore reactions to value pricing and managed lane alternatives
- Assess perceptions of effectiveness and equity of proposed program – specifically if value pricing is perceived as equitable used in isolation or in combination with access restrictions on the lane
- Identify safety and environmental concerns (e.g. additional footprint barrier vs. buffer, environmental justice)
- Establish language to be used in subsequent quantitative phone survey

PARTICIPANTS

- Commuters on I-5 Corridor 3+ days per week between I-5/805 split and South Oceanside.

TOPICS

- **Explain purpose of Group**
 - Explore issues to find out what is important to commuters
 - New transportation facilities – want feedback on options and issues related to the project
 - Will be used to design a telephone survey with a representative sample of I-5 corridor commuters
- **Ground Rules**
 - Group will last 1.5 – 2.0 hours
 - Being observed and recorded (will not be made public)
 - Speak one at a time to facilitate reporting
 - No wrong answers – want to hear all sides of each issue



- **Introductions**
 - Where you get on/off I-5, timing and frequency of commute
 - Commute mode
 - How many miles/minutes
 - How this has changed over last two years, and if so, how much
 - What sort of freeway-related environmental issues do you experience at home (as opposed to when you are driving) e.g. noise, visual, safety, diversion of traffic, etc.

- **I-15 facility**
 - Familiarity with how reversible facility operates (not freeway per se)
 - What are pros and cons about the current I-15 Express Lanes

- **I-5 Facility**
 - Description of corridor and projected congestion levels
 - Timing and physical description of planned option (Option A: 10+4 painted, present graphics and explain how different than I-15)
 - Pricing
 - Positive comments about this approach
 - Concerns or problems with this approach
 - Perceived effectiveness
 - Environmental benefits/concerns (noise, pollution, impact on lagoons)
 - Safety and/or enforcement concerns
 - Perceived equity

- **Access/Egress**
 - How open or closed should the facility be
 1. Physical barrier vs. painted barrier
 2. Frequency of access points – speed & safety vs. access
 - Efficiency of operation
 - Equity
 - Safety

- **Tolls**
 - Fixed vs. variable
 - Zoned or flat (one segment higher than another)
 - Time of day vs. congestion pricing
 - Predetermined amount or whatever it takes to maintain free-flow
 - What is the cost/benefit trade-off of value of time saved commuting (and added safety)



- **Access vs. Tolls**
 - Which is preferable to avoid congestion limiting access, increasing tolls, or combination

- **Option B (8+4 physical barrier)**
 - Pros and cons (performance, equity, safety, environmental)

- **Impact on travel mode**
 - Impact on travel behavior for corridor commuters overall
 - Personal impact on travel patterns, mode, time (e.g. would you use transit or carpool more often, would you change the time of day you commute?)
 - Perceived effectiveness of proposed facility

- **Use of Revenues**
 - Future revenues – awareness of how current FastTrak revenues are spent and how future revenues could be spent

- **Wrap up**
 - Ask observers if any follow-up questions
 - Thank participants and provide incentives

Target Zip Codes for Recruiting

92007
92008
92009
92014
92024
92037
92054
92067
92075
92091
92121
92130



I-5 North Coast Managed Lanes Focus Group Discussion Guide – Round Two

OBJECTIVES

- Better understanding of how the short-haul users feel about the managed lanes project and how their concerns can be addressed.
- Better idea of how long a trip it takes for long-haul users to take the managed lanes (given 3-4 mile frequency of access)
- Identification of any toll feasibility fatal flaws: (i.e., expected benefits, willingness to pay, advance notice to potential users if lanes are not providing benefits, frequency of access, advance knowledge of toll rate, perceived safety, and equity if toll rate varies between segments)
- Phone survey respondents prefer inflexible tolls to variable tolls. How can that be reconciled with ensuring free flow conditions on the managed lanes but also allowing them to be used productively during off-peak periods?

I. WARM-UP INTRODUCTIONS (15 MINS)

GROUND RULES

- Topic is I-5 expansion project
- Group will last 1.5 – 2.0 hours
- Being observed and recorded (will not be made public)
- Speak one at a time to facilitate reporting
- No wrong answers – want to hear all sides of each issue

INTRODUCTIONS

1. Where you get on/off I-5, timing and frequency of commute
2. Commute mode
3. How many miles/minutes
4. How this has changed over last two years, and if so, how much
5. Familiarity with I-15 Express Lanes?



GROUP AND PROJECT PURPOSE EXPLANATIONS (10 MINS)

Explain Purpose of Group

1. Explain that this is the second round of focus groups
2. Telephone surveys have been conducted with I-5 travelers
3. Intercept surveys conducted at park and ride lots and onboard the Coaster and express bus service between the Oceanside Transit Center and UTC Mall.
4. The purpose of this group is to go into more depth on the findings of the previous survey results.

Explain North Coast Managed Lane Project

GRAPHICS: EXISTING FREEWAY AND #1

Show graphic of overall facility and graphic of direct access ramps to the lane and access points from the freeway to the lanes explaining how each work

1. Considering adding approximately **26 miles** of new **MANAGED** lanes to I-5 between Oceanside and I-5/I-805 split
2. Users of these lanes would have to pay a toll
3. In order to control the express lanes so that they are 'free flowing' – meaning that as many vehicles as possible can be accommodated while still maintaining the benefit of "free flow" conditions for users of the lanes
4. Another goal of the express lanes is to help promote transit and ridesharing. Some believe that providing these users a reduced or free toll encourages people to carpool, which can result in fewer vehicles trying to use the same number of lanes than if everyone drove alone
5. Control of the Express lane can take the form of allowing certain kinds of vehicles to use the lane (having to be a carpool), charging tolls, managing entry and exit to the express lanes, or a combination.
6. At a minimum **2** new lanes in each direction
7. Carpoolers and transit will operate free or for a reduced toll.
8. One additional general purpose lane may also be included.
9. A typical rate that will be charged would be \$.25 per mile and could go higher, to as much as \$1.00 or more per mile for a segment that is experiencing congestion. This would mean that the cost of traveling the entire length of the express lanes from Oceanside to the I-5/I-805



split would typically be \$6.50 but could go significantly higher under high congestion conditions.

10. Express lane users will have to be signed up in advance and have a transponder in their vehicle in order to use the lanes.

PROJECT FEEDBACK (90 MINS)

A. ACCESS (25 MINS) GRAPHIC #2 & 3

1. Access is currently planned every 3 to 4 miles over the 26-mile span between Oceanside and the I-5/I-805 split.
 - a. Do you think that access should be more restricted (more distance between access points) to reduce demand on the EXPRESS lanes?
 - b. Would reducing access influence your choice in using the lanes?
 - c. Would less frequent access be any safer (keep discussion in general – not which ones would be removed, i.e. not mine)?

2. Some **access points** would require weaving from the freeway entrance ramp to the express lane entrance (similar to current carpool lanes). **Direct median access ramps** will also be provided in the same vicinity. However median ramps would only be available every 5 miles or so, and connect to only one overcrossing street.

- a. Which access would you most likely use if you traveled in the express lanes? Why?
- b. If you had to travel an additional 2 miles to get to a direct median access ramp, do you think you would use the closer slip access or the more distant direct access ramp?
- c. If one access in the same location were priced twice as high as another, would this influence which one you used? How high would the toll have to be on an access to keep you from using it?

B. Tolling (40 MINS) SAMPLE TRIP COSTS

1. Which would you prefer; tolls that **change** to maintain free flow on the express lanes, or **fixed** tolls that do not change?
 - a. Why do you prefer that option?
 - b. What don't you like about the other option?



2. What do you think about tolls that are **set by time** period but are **higher during peak** commuting periods and **lower** when there is **less traffic** (e.g. midday and between 8PM and 5AM)?
3. Our analysis indicates that tolls that are fixed (don't vary by time of day) will not be as effective as variable tolls (change in response to actual traffic conditions or time of day) in maintaining free flow conditions. The analysis indicates that if fixed tolls are used, the toll will have to be set at higher rate to guarantee free flow conditions in the express lanes.
 - a. Do you still prefer fixed tolls over variable tolls? Why?
4. Current plans call for carpools paying a reduced toll to encourage carpooling.
 - a. Do you think a reduced toll will encourage carpooling?
 - b. Do you think carpools should pay no toll?
 - c. If the toll to travel the full facility is typically about from \$6.50, what toll do you think carpools should pay? (probe for either a fixed rate or “%” rate of whatever the full toll is...)
6. How high do you think the tolls will have to be to sufficiently reduce demand on the express lanes to maintain free flow conditions on the express lanes?
7. Congestion on I-5 varies from location to location and can also change quickly from one moment to the next on any specific part of the freeway.

Even with variable tolls, it is possible that free flow conditions could not be guaranteed, because more people might be getting on further down the road.

Skewed Rate: One way to do a better job of ensuring free flow conditions would be to have **different fees or tolls based on the level of congestion when entering the express lanes**. For example, a car entering the lanes in Oceanside might pay \$.15 per mile based on traffic conditions when entering the lane, but a vehicle entering the lane in Carlsbad might pay \$.25 per mile based on the level of congestion when they entered the lane.

This is going to be implemented on the expansion of the I-15.

- a. What do you see as the advantages of this approach?
What do you see as disadvantages?



- b. Which do you prefer?
- c. Do you still prefer knowing the total cost in advance, even though it means it is not possible to ensure free flow conditions? Why?

C. Communications (10 MINS)

Over time, there will be more and more people trying to commute on the I-5 resulting in continuing increases in congestion.

The addition of the new express lanes and perhaps one additional general purpose lane will help reduce congestion from what it would be if the lanes were not added, but will probably not eliminate congestion at all times of the day because demand is simply outpacing supply.

- 1. How would you explain the benefit of the roadway expansion program we have been talking about so that other people understand how it will help, but without making unrealistic promises about 'reducing congestion'?
- 2. How would you explain why tolling is being used to help control how the lanes operate?

D. Occupancy (10 MINS)

- 1. Over time, the number of people who travel on I-5 will continue to increase. In order to maintain free flow conditions in the managed lanes it may be necessary to increase the occupancy requirement for HOVs from 2 to 3.
 - a. What do you see as the positives and negatives of this step to manage demand?
 - b. Do you support it?

E. Wrap up (5 MINS)

OPTIONAL IF TIME PERMITS

F. Barriers

The barriers might be a double solid painted line, plastic "channelizers," or a physical, concrete barrier. One of the advantages of using painted lines is that in the case of an accident blocking the express lanes; it would be possible to exit from any point. However, since it would be physically possible to enter or exit the express lanes at any location there is concern that scofflaws would exit without paying the toll and/or drivers who don't have a transponder might enter the express lanes between toll collection readers.



1. What do you see as the biggest benefits of the painted line approach?
2. Of the physical barrier approach?
3. Any additional problems with the painted line approach?
4. With the physical barrier approach?
5. If the painted line approach is used, do you think people will cross the lines to avoid paying tolls, and/or to use the express lanes without a transponder?
6. Do you think that having many readers so that the toll at each reader is only \$0.25 instead of having only 2-3 readers with tolls of roughly \$0.90 to \$1.30, would significantly reduce 'cheating' on a lined express lane system?



APPENDIX F

I-5 NORTH COAST MANAGED LANES

SECOND ROUND FOCUS GROUP GRAPHICS



I-5 Managed Lanes Value Pricing Planning Study



Typical Cross Sections



1



I-5 Managed Lanes Value Pricing Planning Study

Lane Separation Strategies



Buffer Separation



Barrier Separation



Pylon Separation





I-5 Managed Lanes Value Pricing Planning Study

HOV Lane Access Points



Direct Access Ramp (DAR)



Slip Access

