LEONARD TRANSPORTATION CENTER
California State University San Bernardino
http://leonard.csusb.edu

Request for Proposals for Needs-Based Research

INTRODUCTION

The Leonard Transportation Center at California State University, San Bernardino is funded by the U.S. Department of Transportation (USDOT) and the California Department of Transportation (Caltrans). The Center emphasizes research targeted to solving critical transportation issues with specific emphasis on topics that enhance the management and decision-making process for transportation systems.

It is anticipated that the Center will issue requests-for-proposals (RFP's) for Needs-Based projects on an annual basis to support its research program. This RFP will fund projects beginning May 2009. Projects will typically last 12 months. The total funding available under the RFP is approximately $500,000, and it is anticipated that the total allocation for each funded project will range from $5,000 to $50,000.

Projects are expected to involve students in the research. In addition to publishing the research in public policy and transportation journals, the project team will be expected to work with a user-group (the Center will assist in the selection of such) and document the research findings in a manner that can be adapted to holding workshops or seminars with potential beneficiaries of the research,. The Center will provide additional funding for such dissemination activities upon successful conclusion of the research project.

The following information describes eligibility requirements, research topics, selection criteria, funding guidelines and restrictions, project requirements and proposal instructions. Budget instructions are provided, along with sample budget sheets. Submission instructions and a Leonard Center cover page are provided.

ELIGIBILITY

Full time faculty members and research faculty at all California State Universities are eligible to serve as Principal Investigators. Co-Principal Investigators may include faculty at the above named universities, as well as regular tenure track faculty members from other California universities and individuals from government or industry.

RESEARCH TOPICS

The Center's theme is "Decision-Making and Management of Transportation Systems." This RFP implements the Center's "Needs-Based' research program which is targeted to specific topics and/or problems statements. These Priority Topics (see below) have been selected based on the perceived priority needs of transportation parishioners and decision-makers, particularly in the urbanized areas of California. It is expected that research teams will re-frame and/or enhance the key issues to maximize their interests and expertise while still addressing a Preferred Project.

Though proposals that address the suggested Priority Topics will be Preferred Project Proposals, proposals that address other transportation research needs which do not appear on the list will be considered. Should this be the case please indicated on the cover sheet

that the submittal is an "Open Category" proposals. Open Category Proposals must fall within the Center's six broad research topic areas (as described in the Center's Research Focus Areas and Potential Project Topics available on at the Center's website and have relevance to pressing transportation information or research needs.

Preferred proposed projects should address one of the following topics:
As noted it is expected that research teams will re-frame and/or enhance the key issues to maximize their interests and expertise while still addressing a Priority Project.

Preferred Project Topics by Leonard Center Focus Areas	
Delivery	**#2** Separated Truck lanes in Southern California: Design, Construction and Implementation Issues
Stewardship	**#3** Reducing Goods Movement Related Air Pollution in Southern California
	#4 Governance of the Goods Movement System in Southern California
	#6 NEPA Environmental Delegation to States (SAFTEA-LU)
	#9 Reconciling the Conflict between Air Quality and Congestion –relief Objectives of the Transportation Equity Act- A Legacy for Users (SAFETEA-LU)
	#10 Matrix of Alternative Congestion Relief and Transportation Mitigation Strategies to Reduce Air, Water and Climate Change
Mobility	**#2** Separated Truck lanes in Southern California: Design, Construction and Implementation Issues
	#7 Implementing Axle-Based Truck Fees in California
	#8 Providing Senior Citizen Mobility at Minimum Public Cost
	#10 Matrix of Alternative Congestion Relief and Transportation Mitigation Strategies to Reduce Air, Water and Climate Change
	#11 Congestion Mitigation Through Improved Traffic Management and Control
Transportation Finance	**#1** Implementation of Container Fees
	#5 Developer Impact Fees to Fund Regional Transportation Facilities in California
	#7 Implementing Axle-Based Truck Fees in California

#1 Implementation of Container Fees

TOPIC

Legal, governance and administrative issues affecting the implementation of a container fee to fund the mitigation of the negative impacts of goods movement and to improve the flow of goods

BACKGROUND

The burden of mitigating traffic and environmental effects from goods moved to and from the LA and Long Beach ports (and other U.S. ports) is immense. While there is yet no consensus on the implementation of container fees it is clear that existing transportation funding sources cannot possibly fund the needed improvements and mitigations. This is also true for at least several other port areas in the United States. As an example Senator Lowenthal has introduced SB 974 in the California legislature which would impose a container fee of up to $30 per twenty foot equivalent unit (TEU). A recent commissioned by SCAG concluded that a fee of up to $200 would have minimal diversion effects from the LA and Long Beach ports.

If and when a container fee is approved by Federal, State or local government there are a number of legal and implementation issues which would have to be addressed, many of which do not have precedent. This project would not so much focus on the political feasibility of container fees but would rather anticipate the legal and administrative issues of implementing container fees.

This project might also evaluate governance issues such as how the funds are allocated, who determines how they will be spent, and how funding priorities should be established.

OBJECTIVES

This project would examine how container fees could most equitably and efficiently be implemented and make recommendations for their imposition.

This research would be anticipate and examine container fee implementation issues, such as determining what agency can and should impose the fee, the conditions of collections (such as on imports only; flat rate or differentiated by how container is transported), protection of funds for use as intended, range of projects to be funded, interstate commerce issues.

This research might also estimate the incidence of the container fee on users and others sectors of the goods movement transportation system.

#2 Dedicated Freight Corridors in Southern California: Design, Construction and Implementation Issues

TOPIC

Analysis of the design and construction challenges of implementing a system-wide dedicated truck lane project as proposed by the Southern California Association of Governments and/or of implementing freight corridors on freeways, arterials, rail lines or other right of way.

BACKGROUND

Over the last few years there has been much discussion, some studies and little consensus regarding the establishment of freight corridors, including possibility of dedicated truck lanes in Southern California.

The Southern California Association of Governments (SCAG) has proposed the construction of a network of separated truck lanes to improve the flow of trucked goods (much of it coming from the LA and Long Beach Ports) and reduce truck related air pollution. Though included in the Regional Transportation Plan (RTP) little has been done to begin implementation. Opposition from some geographical areas is likely. There will be major design challenges. Nonetheless the concept of the separated truck lanes is one of the few options available to reduce congestion (and air pollution) in Southern California. A related issue is the impact of truck movements to distribution centers from the sea ports and from the distribution centers to rail yards and other points of regional or our of state distribution. The projected time frame for such projects will likely be 15-20 years.

OBJECTIVES

The primary objective of this project will be analyze in much greater detail than has so far occurred the design and construction issues (including how such project could be built incrementally) of implementing a truck-only network (or dedicated truck routes in order anticipate design and construction issues if and when political consensus is achieved on funding designated truck routes.

RESOURCES: "Strategies for Separating Trucks from Passenger Vehicles: Truck Facility Guidebook" by Dan Middleton et al. Texas Transportation Institute, Texas A&M University System, College Station, Texas

#3 Reducing Goods Movement Related Air Pollution in Southern California

TOPIC

Cost/benefit of alternative investments/strategies to reduce/mitigate Goods Movement related air pollution in Southern California

BACKGROUND

Goods movement related air pollution – largely the effect of diesel fuels – has become Southern California's biggest air quality challenge. SCAG has estimated that roughly $15 to $20 billion is needed to "clean-up" goods movement related air pollution in Southern California. Strategies range from retrofitting diesel engines to electrifying rail lines. Present funding covers very little of the need. However, it seems apparent that addressing the environmental effects of goods movement will be essential, politically and economically, to plans and funding to improve the flow of goods. Various proposals are being discussed, each with different costs and implementation issues. Decision-makers do not have reliable information about which proposals are more cost effective than others or about other effects such as public safety and congestion. In this context there is a need for better information about what air pollution investments yield the greatest return so that priorities can be established both to gain support for additional funding and to begin implementation.

OBJECIVE

The objective of this project will be to review potential goods movement environmental mitigation alternatives, prioritize alternatives by cost per ton (other measurement) and other criteria and recommend an implementation approach to policy makers.

Resources: SCAG study about how to spend $10B

#4 Governance of the Goods Movement System in Southern California

TOPIC

An analysis of alternative institutional arrangements to improve governance of the goods movement system in Southern California.

BACKGROUND

The movement of imported goods through Southern California has great impact on the economy, the environment and mobility in the region. Both public and private sector institutions and organizations have large stakes in the process and both public and private sectors make decisions which affect the entire system. There are numerous governmental agencies having jurisdiction over at least some aspect affecting the movement of goods. Likewise the goods movement industry is diverse and fractured by competitive interests and different goals. Many public and industry participants believe the goods movement system is headed for gridlock and in spite of increased recognition of the problems such as congestion, air pollution, lack of facilities (such as grade separations), rail freight capacity and projected gridlock there is no effective governance of the system, institutional arrangement, forum or "table" at which the private and public interests can discuss and negotiate a joint approach.

OBJECTIVE

The object of this project is to describe and recommend possible decision-making and institutional arrangements for improving freight movement and mitigating its effects in Southern California. Such could be formal institutions or more informal processes to achieve consensus. In any case both public and industry representatives would need to have a place at the table.

RESOURCES: TRB has posted a research solicitation (due 8/30/07) entitled: "Institutional Arrangements in the Freight Transportation System." It is envisioned that the CSUSB project could build on this research with special focus on Southern California.

#5 Developer Impact Fees to Fund Regional Transportation Facilities in California

TOPIC

Analysis of developer impact fees to fund regional transportation facilities in California and recommend best practices for the imposition of such fees.

BACKGROUND

Impact fees imposed on new development have become an increasingly important source of revenue used by local and regional agencies to fund new transportation infrastructure. These fees are in addition to standard building requirements to provide local roads and provide funding for arterials, signals, interchanges and even for new freeway construction or expansion. This source of funding has been used by numerous local agencies in California since the mid-1980's. As such, there is a history that can be studied to identify the best practices for development and implementation of mitigation fee programs for transportation infrastructure.

OBJECTIVE

Encourage research to identify best practices in the development, collection, management, and use of transportation mitigation fees by local governments.

TASKS

Areas for Investigation:
Research the principles of equity especially as they are applied in the provision of transportation infrastructure. Discuss the pros and cons of various principles. Identify the principle most appropriate to apply to the provision of regional transportation infrastructure.

Research highway cost allocation methods and debates associated with them. Identify lessons that may be learnt in the design of the method to emanate from this project.

Methods:

1) Infrastructure cost estimation - how do you make cost estimates of projects to be funded by the fee program when you have very limited information concerning these projects? The study can research or develop existing sketch planning methods for cost estimation. For example, the study, "Planning for an Express Bus System in the Bay Area" (UCTC, 2005), includes such cost estimation methods.

2) Nexus analysis - various methodologies have been used to calculate the responsibility of new development to pay its fair share for infrastructure. Which of these methods work

best? Are some methods more legally defensible than others? The study can discuss the various types of equity considerations and identify which principle is best applicable in determining fair share distribution for infrastructure projects.

Some fee programs base the nexus calculation on the VMT generated by new development. Other programs base the nexus calculation on the trip generation of new development. Then there are programs that use a mix of the VMT and trip generation. Is there any advantage or benefit of using one methodology over another?

Policy:

1) Impact fees and economic competitiveness - many agencies are reluctant to implement transportation mitigation fees or keep the fees unreasonably low because there is a belief that the fees adversely affect economic competitiveness. It is believed that high fees interfere with an agency's ability to attract desirable forms of development that generate new employment or revenues in terms of property taxes or sales taxes. What research has been done to show the impact of development fees on economic competitiveness? Does the research support or refute the belief that impact fees adversely affect economic competitiveness?

2) One alternative to the imposition of development impact fees to fund transportation infrastructure is the formation of assessment districts. These two alternative methods of funding should be compared and contrasted for the purpose of identifying the conditions under which it would be better to implement one over the other.

Administration:

1) Management and programming - what are best practices in the management of these fee programs and the expenditure of these for new projects? Areas to examine include: revenue estimation, capital programming, the role of debt financing, co-mingling of funds from other sources for new projects; "borrowing" funds from one pot to enable a project to be constructed sooner.

2) Right-of-way - some agencies cover the cost of right-of-way acquisition as part of their fee program. Other agencies depend on obtaining right-of-way pursuant to local government authority under the California Subdivision Map Act. Is one approach better than another? Or is a blend of these approaches preferable?

3) Fee credits and reimbursements - many agencies issue fee credits or reimbursements for the construction of transportation improvements in lieu of the collection of fees. What administrative tools and accounting procedures should be in place to avoid potential pitfalls that can occur in doing this? This issue needs to be pondered especially in terms of the time value of money and the unpredictability of input and construction costs over time.

4) How to deal with fee credits and reimbursements in programs in which the fees have been discounted for certain land-use categories. How can this be done without over compensating the developers of these favored land-use categories?

5) Regional transportation agencies have used different approaches to encouraging or requiring their member city and county jurisdictions to participate in the program. For instance Riverside County's sales tax measure would eliminate the local share of the transportation sales tax to a member agency which does not impose the uniform impact fee; San Bernardino County would make a finding that the agency is not in conformance with state required transportation mitigation plan and request that the state withhold local gas tax allocations. Are there preferred methods of enforcing participation?

#6 NEPA Environmental Delegation to States (TEA-LU Demonstration Project)

TOPIC

Analysis of NEPA environmental delegation to States (TEA-LU Demonstration Project)

BACKGROUND

A much touted new provision of TEA-LU authorized, on a demonstration basis, EPA to delegate NEPA to five states, including California as a way to expedite project development without compromising environmental standards. To date this delegation has been implemented only in California. This project would review what has occurred, evaluate progress made and investigate the reasons implementation has not occurred elsewhere.

OBJECTIVES

TASKS

#7 Implementing Axle-Based Truck Fees in California

TOPIC

Analysis of benefits and costs of implementing axle-based truck fees in California

BACKGROUND

The number of tractor-trailer truck miles driven on American roadways has well more than double to more than 145 billion miles a year since 1980, increasing faster than the rate of smaller trucks or cars. Experience in other countries and research in this country has demonstrated that axle-based truck fees in lieu of total weight fees will provide incentives to truckers to make changes (such as increase the number of axles which will substantially reduce road maintenance costs.) Some research (see Small, Winston and Evans Road Work, Brookings, 1989) has indicated that though heavier trucks would pay more and lighter trucks less, the aggregate level of fees would not need to be increased to achieve substantial maintenance cost reductions. Given these findings it is somewhat of an enigma as to why such policies have not been embraced.

OBJECTIVE

The objective of this project would be develop axle-based truck fees plan for California, including investigation of public and trucking industry perceptions and an analysis of cost and benefits of such a plan. Other possible tax structures might also be examined such as weight/distance and/or weight/distance/type of road way traveled.

#8 Providing Senior Citizen Mobility at Minimum Public Cost

TOPIC

An analysis of how to provide Senior Citizen mobility for those not driving at minimum public cost.

BACKGROUND

Demographics suggest an increasing demand to provide assisted transportation for older citizens who no longer drive. The operating assumption of the transit industry is that the public transit system should provide for and absorb the cost of this increasing demand. Such assumption will likely lead to greatly increased transit subsidy costs, thus further burdening public transit which generally faces severe funding issues. Most seniors who give up driving have previously paid, from their own resources, for the cost of owing/driving an automobile. Seniors who give up driving will experience a decrease in

expenses – perhaps on average of $4,000 to $6,000 per year. This study will examine ways in which senior citizens can use these "savings" to purchase their needed mobility rather than depending solely on increased public subsidies.

OBJECTIVE

This project would examine equity issues (such as requiring co-pay from those who are now "saving" money by owning a car) and evaluate alternative transportation services and modes to meet the increasing demand. Attention should be given to how those deemed to be in need of transit subsidies can be provided for – without having the public subsidize trips made by the majority of senior citizens. Additionally the project should explore feasible transportation services and contractual relationships, such as with taxi firms and/or other private providers, which can provide necessary services at least public cost.

TASKS

Literature Review

Research lessons contained in existing studies of deep discount transit pass programs and specialized transportation services. Indications are that both of these approaches offer affordable ways of providing timely and efficient mobility to special groups, such as seniors, in comparison to existing demand response services which tend to be extremely expensive per use.

Method

Develop a methodology to help select appropriate and cost effective transportation for seniors to include the following: (a) identify the concentrations of seniors within typical types of built environments: urban, suburban, and rural; (b) match the spatial distribution of seniors with the network of available public transportation services; (c) determine the most frequent travel needs and origins and destinations of seniors in an area; (d) determine gaps in service; (e) propose cost effective methods of filling the gaps in need. In certain circumstances, providing groups of seniors with deep discount passes for existing public transit will be preferred. In other circumstances, providing special shuttles and hybrid para-transit services may be the answer. A mixture of services and programs may be necessary sometimes. Determine how the cost of the preferred alternative compares with existing programs and quantify the cost savings involved. Develop the methodology through a case application to a community in California.

Policy Recommendations

From the findings of the study, formulate policy guides for the transportation of seniors in different types of built environments, under varying availability of existing services and for varied concentrations of senior populations in an area.

#9 Reconciling the Conflict between Air Quality and Congestion-relief Objectives of the Transportation Equity Act - A Legacy for Users (TEA LU)

TOPIC

Reconciling the conflict between air quality and congestion-relief objectives inherent in the Federal TEA-LU highway legislation relating to the required Regional Transportation Plan (RTP).

BACKGROUND

The Federally mandated requirement for Metropolitan Planning Organizations MPO's) to adopt a conforming RTP each three years may be sound in principle but leads to an unresolved conflict between mobility goals and air quality goals. By requiring that transportation projects reduce emissions (or by assuming that all public transit investments yield air quality improvements) decisions are made which do not optimize congestion reduction strategies and probably lead to very small return to dollars invested in regard to air quality reduction versus alternative (i.e. non-transportation) air quality mitigation efforts.

OBJECTIVES

The objective of this study would be to recommend a different approach to the conformity issue which would encourage congestion relief projects and maximize air pollution reduction investments.

#10 Matrixes of Alternative Congestion Relief and Transportation Mitigation Strategies to Reduce Air, Water and Climate Change Impacts

TOPIC

Develop matrix enabling decision-makers to understand and compare the benefits and costs of various strategies to reduce congestion and to mitigate transportation related impacts on air, energy use, water, and climate change

BACKGROUND

Industry and state and local governments are under increasing pressure to respond to initiatives (such as California AB32 dealing with climate change) to improve air quality, reduce congestion, reduce carbon emissions etc. It is fair to say that pollution reduction, energy "impendence", fuel source, carbon reduction, and congestion reduction strategies are most often implemented without much understanding about the total cost and benefit of such investments and policies or the relationship among various investments or policies (i.e. a policy reducing one form of air pollution may have a climate effect; or conversely some strategies may have positive "multiplier" effects by achieving more than one objective.) Because of these policies are driven by a desire to achieve a single value (such as air pollution improvement) attention is not given to how in the process of achieving value "A" such strategy may help or hinder achieving values "B" or"C". This project would attempt to define, in dollar terms, what are best investments to maximize achieving specific performance improvements in context of achieving multiple values.

OBJECTIVES

This project would establish a framework leading to a more complete understanding of the costs and benefits of various transportation related investments and mitigation measures relating to reducing transportation impacts on air, water, energy and climate change and improving mobility.

TASKS

Recourses: Steve Schwartz 2006 presentation at UCLA Arrowhead Conference

#11 Congestion Mitigation Through Improved Traffic Management and Control

TOPIC

Explore opportunities in the Inland Empire to develop and deploy state-of-the-art traffic detection, monitoring, Transportation Management Centers, and methods and technologies as well as improved traffic control strategies.

BACKGROUND

A vast repertoire of traffic management and control methods technologies presently exist throughout the world and improvements to existing methods and technologies are continuously being implemented. This topic area is intended to give researchers the opportunity and incentive to explore in partnership with willing state or local authorities in the Inland Empire how recent advancements in traffic management and control can best be used to mitigate area congestion problems, to use existing data better and document needed data. Basic work to improve these methods and tools is welcome, especially if related to case study applications in the region. As a general rule, management of parking supply and demand through advanced technologies, and integration of traffic management information services with public transportation have had limited application in the U.S. Opportunities to demonstrate progress in these application areas abound and merit systematic investigation.

OBJECTIVE

The object of this research is to encourage researchers to work with state and local traffic authorities to explore opportunities for deploying improved traffic management and control technologies, and to perform ex post facto evaluation of systems previously implemented.

#12 Environmental and Sustainability - Assembly Bill 32 and Senate Bill 375

TOPIC

Exploring practical tools for compliance with the greenhouse gas reduction (GHG) goals and planning objectives of the newly adopted California legislation AB 32 and SB 375.

BACKGROUND

On October 1st, 2008 Governor Arnold Schwarzenegger signed SB 375, which marked a sweeping change in land use, housing and environmental law. SB 375 seeks to reduce greenhouse gas (GHG) emissions by discouraging sprawl development and dependence on car travel. It will promote "more environmentally-friendly communities, more sustainable developments, less time people spend in their cars, [and] more alternative transportation options" (Governor Press Release). The new law helps implement AB 32's GHG reduction goals by integrating land use, regional transportation and housing planning.

SB 375 requires regional transportation plans to include a "sustainable community strategy" (SCS) to meet GHG reduction targets for vehicle travel set by the California Air

Resources Board (the state agency developing AB 32 regulations). Projects consistent with a SCS qualify for relief from some California Environmental Quality Act (CEQA) requirements, which will reduce project costs, processing time and legal risks. The bill also provides significant changes to Housing Element law, especially the timing and requirements for Regional Housing Needs Allocation (RHNA) planning, including:

Strengthened and Augmented Regional Planning Process

SB 375 requires each metropolitan region to adopt a "sustainable community strategy" (SCS) in its regional transportation plans to encourage compact development that aligns with regional GHG emissions reduction targets set by the California Air Resources Board (ARB). SB 375 requires that ARB certify that the SCS will reach these targets by decreasing GHG emissions from automobiles and light trucks. Transportation projects that are part of the SCS will have priority on State transportation money.

CEQA Incentives for Specific Projects

SB 375 provides transportation CEQA incentives, consistent with the SCS, for Transit Priority Projects and residential or mixed use residential projects. Transit Priority Projects that qualify will receive streamlined environmental review under CEQA. The form of streamlined review includes a limited Initial Study or environmental impact review (EIR.) Qualified residential or mixed use projects may omit lengthy documentation from their CEQA review, such as: growth-inducing impacts, project or cumulative impacts from vehicle trips on global warming, or a reduced density alternative.

Alignment of RHNA and Regional Transportation Planning Process

SB 375 creates an integrated housing and transportation process by aligning the Regional Housing Needs Assessment (RHNA) with regional transportation planning. The new law also expands the current five-year housing planning periods to eight-years for cities within certain Metropolitan Planning Organizations (MPOs). SB 375 requires that the RHNA allocation be consistent with the SCS; however, the housing element process remains the same, including the self-certification option. SB 375 generally requires rezoning of certain sites to accommodate certain housing needs within specified times, with an opportunity for an extension of time under specified circumstances.

OBJECTIVE

Both AB 32 and SB 375 provide little concrete guidance on effective means for regional and transportation planners to promote greenhouse gas reduction under the new law. As such, the objective of this research area is to encourage qualified applicants to develop tools that will assist planning groups and regulated industries in developing cost effective and environmentally responsible strategies to proceed under California's need climate change legislation.

#13 Open Category Proposals

As noted previously the above priority topics are Preferred Proposals. However, the Center will entertain proposals which do not specifically address the priority topics

above, though Open Category proposals should fall within the Center's six research focus areas as described in the Center's Research Focus Areas and Potential Topics which is available on our website (http://leonard.csusb.edu/research/)

SELECTION CRITERIA

Proposals will be selected on the basis of overall merit. Proposals will compete both within topics and across topics.

Reviewers will evaluate proposals according to the following selection criteria (see Attachment C Needs-Based Evaluation Form).

Yes/No Criteria"

- Student involvement in the research project
- Relevant to needs of the US Department Transportation and the California Department of Transportation.

Evaluation Criteria:

- Objectives of the project
- Methods and procedures
- Feasibility
- Relevance and significance
- Reasonableness of budget and cost-effectiveness
- Match-funding participation from outside agencies
- Qualifications of team and likelihood of successful completion

The Leonard Transportation Center Advisory Board will make final project selections, and will take into account recommendations made by the Director. An RFP review committees may be established, though the Advisory Board will make final project selection. Prior to releasing funds all recommended projects will be reviewed with Caltrans.

FUNDING GUIDELINES AND RESTRICTIONS

Budgets should be conservative and cost-effective up to $50,000. The Center reserves the right to reduce budgets of submitted projects. Funds should be spent in a manner that provides publishable results and which facilitates transferability of research findings to transportation decision-makers.

In general, faculty salary (summer or academic year), student support, and tuition/fee reimbursement are allowed expenses. Funding for students is expected in all projects. Overhead and fringe benefits should also be included in the budget. A limited amount of travel for data collection purposes and materials and supplies is allowable, provided that they are a direct expense related to completing the work. International travel is not permitted unless specific justification is provided and approved by both Caltrans and the U.S. Department of Transportation. Faculty support can be in the form of release time, overload salary, or summer salary. Please note: faculty should contact their Sponsored Programs office for appropriate overhead rates, salaries, wages, and direct costs vary campus to campus.

PROJECT REQUIREMENTS

All funded projects have the following requirements:

1. Quarterly progress reports, conforming to the Center's guidelines

2. Draft Final report must be delivered electronically no later than the end of the contract date. The Draft Final Report is subject to review by the Director and Project Team will take such comments and suggestions under consideration in finalizing the report. The Final Report is due no later than two months after the end of the contract. The Final Report should document the research project and be complete, original, well organized and accurate. Final Reports are distributed via the Center website, and are submitted to Center sponsors and to various publication data bases.

3. The Report shall identify weaknesses, limitations and potential enhancement in the transportation data bases and information systems which the research team experienced in the course of their research of the funded project to aid in developing improved information for future studies.

4. The Report shall suggest topics and problem areas which merit future research.

5. The Report shall list publications, presentations and inventions resulting from research and the names of students involved in the project.

6. One presentation of research at a conference or event organized or co-sponsored by the Center.

7. Timely reporting of all information required for the Center's Annual Report.

8. Copies of all papers submitted to journal or conferences that are based on the project research shall be provided to the Center Director.

9. The Center support shall be acknowledged in all work that results from the Center's funding.

10. The Report should contain the Team's recommendations (or a plan) describing how the research findings can be disseminated. The research team should anticipate the Center's likely intention to provide a venue(s) for transferring the research project findings and recommendations to potential users. Additional funding for this activity would be made available as appropriate after the completion of the research project.

PROPOSAL INSTRUCTIONS

Each proposal should include a detailed narrative describing the proposed work, a schedule for completion of the work, a description of the expected outcomes and the form in which these outcomes will be provided, and a statement about why the resources requested are appropriate to completing the project. The minimum deliverables should include a final report describing what was accomplished. In writing your proposal, assume that the panel judging the proposal will include generalists as well as experts in your field.

Proposals should be succinct and clearly written for a mixed technical and non-technical audience. Proposals are limited to no more than 8 pages in sections 3 – 7. Each proposal must include the following:

1. Cover Page (use attached form or facsimile).

2. An abstract of the project's objectives, scope, goals and methods written in non-technical language. Summarize the whole project, not just the "significance" section. Describe the problem to be studied, methods to be used, and plan of work, and deliverable(s) of the project.

3. A discussion of the significance of the project. What is the question or problem to be researched or studied? What is the theoretical basis or context for the problem? What studies do you know of that suggest this is the next logical step? What is the importance of the problem or need for the proposed work?

4. An explanation of the detailed plan of work, including theoretical justification, methodology, tasks, and time schedule.

5. A description of how findings will be used. Will you seek publication in refereed journals or elsewhere? Will the results be used to apply for support from external sponsors? If so, from whom? Private industry? Federal/state/local agencies? Others? Could the findings lead to the development of patentable intellectual property or other commercial opportunities[1]?

6. Tasks, Schedule and Deliverable: steps that will be followed in executing the methodology, and when they will be completed. Description of the research product.

7. Budget Justification: strong justification should be provided for unusual expenses (e.g., equipment. Equipment is eligible if it is determined that such request is appropriate to execute the project.). The extent of student involvement should be clearly stated.

[1] Please note per agreement with the California Department of Transportation that all work product derived by the work performed by the Consultant, its employees or by any of the Consultant's Subcontractor's employees under this Agreement, shall be owned by the Department.

8. A detailed budget (1 page, using attached or facsimile).

9. Reference List (no limit)

10. Letters of participation or match funding (attached, any number and length). Other support. If you have current or expected support for this work or closely related work, or have received such support in the past, please identify the sources and amount of support. Identify any publications that have resulted from your work.

11. Vitae (attached, 2 page maximum per person) Provide a short bio and list of recent publications and funded research projects.

Where can I get more information?

Contact:
Norm King, Director at nking@csusb.edu (909-537-5085)
Rusty Thornton, Program Coordinator at gthornto@csusb.edu (909-537-3686)
Leonard Transportation Center
California State University, San Bernardino
http://leonard.csusb.edu

Submission Deadline

This is an open request for proposals. Please submit an electronic copy of the proposal (by e-mail attachment) to: gthornto@csusb.edu

Also, one follow-up paper copy with original signatures to:
Leonard Transportation Center
California State University San Bernardino
Jack Brown Hall, 283
5500 University Parkway
San Bernardino, Ca. 92407-2393

Attachment 1: CSUSB Budget Form

Category	Annual Salary	Release Time Units Or % Effort	Overload Salary[2] or Summer Salary		**Budget ($)**
Faculty Salary	_____ x	_____	+ _____	=	_____
Faculty Salary[3]	_____ x	_____	+ _____	=	_____
Faculty Fringe Benefits (Release Time[4])			$_____ x ____%	=	_____
Faculty Fringe Benefits (Overload/Summer)			$_____ x ____%	=	_____
	Hourly Rate	# Hours			
Student Support	_____ x	_____		=	_____
Student Fringe Benefits			$_____ x ____%	=	_____
Conference Travel					_____
Other Travel					_____
Materials and Supplies					_____
Equipment (list)	_____				
	_____				
Other Direct Expenses (itemize)	_____				_____
	_____				_____
Total Direct Cost					_____
Indirect Cost (F&A)			$_____ x ____%	=	_____
Total Funds Requested					_____

[2] Applicants should contact their sponsored Programs office for correct fringe benefits rate.
[3] Use additional faculty lines only if more than one professor.
[4] Release time should be 1/9th base salary for quarter campuses.

Attachment 2: LTC RFP for Need Based Research Cover Page

Title _____

Theme _____

_____

Topic Name/Number _____

Principal Investigator _____

Mailing Address _____

_____

_____

_____

E-mail _____

Phone _____

Fax _____

Co-Principal Investigator _____

_____

Are you submitting this proposal elsewhere, or are you currently receiving funding in the same area of research? **Yes / No**

If yes, please describe circumstances and funding source:

Attachment 3: LTC RFP for Need Based Research Evaluation Form
(Provided for information only; form will be used by evaluators; form may be modified at discretion of the Center)

#_____ Title: _____

YES/NO CRITERIA:

1. Student involvement in the research project: **Yes / No**
2. Relevant to needs of the California Department of Transportation and US Department of Transportation: **Yes / No**

EVALUATION CRITERIA: SCORE

1) OBJECTIVES 20 _____ 10 _____ 0 _____

Fully developed ideas	Overgeneralization
sufficiently supported	Unconvincing; questionable
Desired results are clear	Simplistic or undeveloped

Comments: _____

2) METHODS 10 _____ 5 _____ 0 _____

Appropriate & relevant tools	Inappropriate method
Strong rationale for use of	Lack of focus
methodology	Unconvincing analysis
Accurate/reasonable analyses	Inadequate research design

Comments: _____

3) FEASIBILITY 20 _____ 10 _____ 0 _____

Convincing time frame	Unrealistic plans
Well supported needs	Unsubstantiated needs
Appropriate planning	Uncertain access/Unclear planning

Comments: _____

4) RELEVANCE AND SIGNIFICANCE

20 _____ 10 _____ 0 _____

Addresses a Center's Priority Topic	Not responsive to Priority Topics
Stimulating project	Unimaginative
Addresses pressing, significant research needs	Not relevant to pressing research needs

Comments: _____

5) REASONABLENESS OF BUDGET/COST-EFFECTIVNESS/LEVERAGING INSTITUTE FUNDING

20 _____ 10 _____ 0 _____

Realistic, tight budget	Budget overstated
Proposed product can be produced within budget	Budget understated
Outside matching funds	No matching funds

Comments: _____

6) QUALIFICATIONS OF TEAM AND LIKELIHOOD OF SUCCESSFUL COMPLETION

10 _____ 5 _____ 0 _____

Research team well-qualified
High likelihood of success

Research team not qualified
Delivery of high quality project in doubt

Comments: _____

TOTAL (MAX 100) _____

In your opinion should this proposal be funded? **Yes / Maybe / No**

Evaluator Name _____

Proposals must clearly demonstrate quality in terms of the following:

a. **Objectives**: The proposal must describe the objectives of the project and elaborate on the following:
   1) the reasons for the applicant's undertaking the project;
   2) the purpose of the project;
   3) the projected results of the project;
   4) how the results fit the applicant's future research plans; and
   5) the project's relation to other professional activity being conducted by the faculty member.

b. **Methods**: The proposal must clearly describe the activities, including methods and procedures, which will be conducted and must clearly show that these are designed to meet the stated objectives.

c. **Feasibility**: The proposal must present an organized plan of action which demonstrates that the project is feasible within the project timeframe. The proposal should demonstrate high probability of successful completion.

d. **Relevance and Significance**: A Preferred Proposal should address one of the Center's Priority Topics. Open Category Proposals should fall within the Center's five broad research topic areas and have relevance to pressing transportation information or research needs (see "Recommended Research Projects" at Leonard Transportation Center website: http://leonard.csusb.edu

e. **Reasonableness of Budget / Cost-Effectiveness / Leveraging Institute Funding**: The proposal should present a realistic but thrifty budget and should demonstrate that the proposal is an efficient and effective expenditure of Center funds. The use of matching or leveraged funds will be looked upon favorably.

f. **Qualifications of Team and Likelihood of Successful Completion**: The research team should be highly qualified and the likelihood of successful completion should not be doubted.