



OFFICE OF SPONSORED PROJECTS
THE UNIVERSITY OF TEXAS AT AUSTIN

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September 21, 2007

Mr. Daniel Yang
Capital Metro MPO
1088 One Texas Center, Suite 700
Austin, Texas 78704

Re: "CAMPO Transit Oriented Development (TOD) Study

Dear Mr. Yang:

We are pleased to submit this proposal prepared by Dr. Ming Zhang, Architecture Department. This proposal has the approval of cognizant officials of The University of Texas at Austin.

Enclosed along with the proposal is The University's Principles and Policies Guide for Sponsored Research. It briefly summarizes the fundamental issues that govern the manner in which research is conducted at The University.

For information relating to the technical portions of this project, you may contact Dr. Ming Zhang, Architecture Department, The University of Texas at Austin. Other questions regarding the proposal or budgetary matters may be referred to Ms. Dana Morrison, Office of Sponsored Projects, at 512/471-6424.

Sincerely,

A handwritten signature in cursive script that reads "Courtney Frazier".

Courtney Frazier, Assistant Director
Office of Sponsored Projects

CF:dm

Enclosures

Proposal Title

CAMPO Transit Oriented Development (TOD) Study

Proposal Submitted to:

Capital Area Metropolitan Planning Organization

Physical Address:

505 Barton Springs Road,
Suite 700
Austin, TX 78704

Mailing Address

P. O. Box 1088
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Proposed by:

Ming Zhang, Ph.D., AICP
Assistant Professor of Community & Regional Planning

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August 31, 2007

Problem Statement and Significance

Transit Oriented Development (TOD) integrates transit and land use through creation of an urban form featured with moderate to high densities, mixed land-use, and pedestrian/cyclist friendly environmental design around transit stations. TOD is gaining worldwide popularity because of the potential it offers to tackle the many problems related with urban sprawl. The City of Austin's TOD program lists a number of benefits associated with TOD. They include enhancing transit ridership, providing greater mobility choice (walking, bicycling, transit, etc.), decreasing roadway congestion and pollution, and improving the design quality of the built environment, along with others.

Although TOD is expected to generate a range of travel benefits, it has not been fully incorporated by most Metropolitan Planning Organizations (MPOs) in their long-range travel demand forecasting. Two constraints contribute to the exclusion of TOD in the travel demand analysis. First, TOD is still new; there are only approximately 100 established TODs nationwide. Austin's first rail transit line will not begin its services until 2008 and the related TOD proposals will require additional time to be implemented. Consequently, there have been no empirical TOD data from the Austin region to update the base trip rates needed for refining the demand forecasting to capture the potential effects of TOD. Second, there has been lack of capable tools available for the MPO staff to process urban form data and to derive the TOD-feature measures such as land use mixture, network connectivity, and pedestrian friendliness. The conventional tools employed by MPOs for demand analysis typically use Traffic Analysis Zone (TAZ) as the basic spatial unit of analysis. These existing tools are quite insensitive to changes in the TOD-promoted micro-scale environment. As demand forecasting results provide critical input to decision making on future transportation investments, inclusion of TOD in demand analysis will likely influence funding distributions among various urban transportation systems (i.e., highway, transit, and walk/bike), which in turn affects the fulfillment of the social, economic, and environmental responsibilities of transportation.

Tasks

This study aims at overcoming the constraints by conducting the following tasks:

- 1) Synthesize findings from the literature on the variations of trip rates of motorized and non-motorized travel generated from mixed land uses by households with similar socioeconomic characteristics;
- 2) Conduct a literature survey of empirical evidence on the extents to which TOD-featured urban form affects travel mode choice;
- 3) Develop a research methodology on using GIS to quantify TOD-featured urban form;
- 4) Derive a set of measures for the CAMPO area on the network connectivity among roadways, transit routes, bike paths, and sidewalks;
- 5) In partnership with CAMPO, conduct a case study based on the most current travel survey data in the Austin area using the research results from the above

tasks and present model refinements for CAMPO's 2005 Base Year model development;

- 6) Refine the methodology developed in Task 3 and complete the research report.

Work Plan

Work Task	2007			2008								
	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
1.	X	X	X									
2.	X	X	X									
3.			X	X	X							
4.					X	X	X	X				
5.					X	X	X	X	X	X		
6.										X	X	X
7.												

Budget

See attached

OSP BUDGET SUMMARY WORKSHEET

G&CS INITIALS: DM DATE: 9.10.07 OSP Cont. No.: 200702078

PI LAST NAME(S): Gross

SPONSOR: Ziegler Fdn

TOTAL PROPOSED PERIOD FROM: _____ TO: _____ TOTAL COSTS: \$36,002

BUDGET SUMMARY: Total Project Period, or First Yr. Only

		Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Salaries and Wages	(12)	23,125	0	0	0	0	23,125
Fringe Benefits	(14)	5,781	0	0	0	0	5,781
TOTAL Salaries/Fringe		28,906	0	0	0	0	28,906
Capital Equip. (items>\$5,000)	(80)	0	0	0	0	0	0
Equip. Fabrication (exempt)	(83)	0	0	0	0	0	0
Travel - Domestic	(75)	0	0	0	0	0	0
Travel - Foreign	(76)	0	0	0	0	0	0
Computer Time (Cray-Dept-Comp)	(67)	0	0	0	0	0	0
Tuition & Fees (exempt)	(71)	0	0	0	0	0	0
Stipends (exempt)	(70)	0	0	0	0	0	0
Inst. Allowance	(73)	0	0	0	0	0	0
Participant Supp. (exempt)	(37)	0	0	0	0	0	0
Consultants	(60)	0	0	0	0	0	0
Subcontracts (exempt after \$25K)							
(1)	(61)	0	0	0	0	0	0
(2)	(62)	0	0	0	0	0	0
(3)	(63)	0	0	0	0	0	0
Other		200	0	0	0	0	200
Publications	(58)	0	0	0	0	0	0
Materials & Supp.	(50)	2,200	0	0	0	0	2,200
TOTAL Direct Costs		31,306	0	0	0	0	31,306
MTDC	(rate) <input type="text" value="0.15"/>	31,306	0	0	0	0	31,306
TDC	<input type="text" value="0"/>	0	0	0	0	0	0
Total Ind. Costs		4,696	0	0	0	0	4,696
TOTAL Costs		36,002	0	0	0	0	36,002