# IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS SAN ANTONIO DIVISION

AQUIFER GUARDIANS IN URBAN AREAS,	) )
Plaintiff,	
VS.	) CIVIL ACTION NO. SA-08-CA-0154-FB
FEDERAL HIGHWAY	)
ADMINISTRATION; UNITED STATES	)
FISH AND WILDLIFE SERVICE;	)
AMADEO SAENZ, JR., Executive	)
Director, Texas Department	)
of Transportation; TERRY	)
BRECHTEL, Executive Director,	)
Alamo Regional Mobility Authority.	)
	)
Defendants.	

# **DECLARATION OF REID EWING, Ph.D.**

# I, REID EWING, declare:

1. This affidavit is my professional opinion relating to the above-styled case, in support of Plaintiff's request for preliminary injunction. I have the qualifications and experience and have reviewed the documents necessary to state the opinions set forth in this affidavit.

# **Professional Qualifications**

- 2. I hold masters degrees in Engineering and City Planning from Harvard University, and a Ph.D. in Urban Planning and Transportation Systems from the Massachusetts Institute of Technology. My current position is Professor at the University of Utah in the Department of City and Metropolitan Planning, where I teach in land use and transportation. Previously, I taught as Research Professor at the University of Maryland's National Center for Smart Growth. I have also served as Executive Director of the Voorhees Transportation Center at Rutgers University.
- I have published and consulted extensively in the areas of land use and transportation planning, including on the impact of transportation investments on land development patterns. In 2008-09, I co-authored research published in the Journal of the American Planning Association, Journal of Planning Literature,

- Journal of Urban Design, Urban Design International, Environmental Practice, Journal of Environmental Psychology, Journal of Urbanism, Housing Policy Debate, American Journal of Preventive Medicine, Journal of Epidemiology and Community Health, Transportation Research Record, and ITE Journal.
- 4. My most recent book on land use and transportation was published in 2008 by the Urban Land Institute and is titled Growing Cooler: The Evidence on Urban Development and Climate Change. It contains a chapter on "Induced Traffic and Induced Development" (Chapter 6), from which I draw in this affidavit, in addition to my general professional background and expertise. My opinion is also drawn from a recent article that I published in the Transportation Research Record: Journal of the Transportation Research Board of the National Academy of Sciences, in which I comprehensively review the literature on highway-induced development. For more details on my consulting, speaking, research, and writing, see the attached copy of my curriculum vitae.

# **Summary of Professional Opinion**

- 5. In my professional opinion, the Federal Highway Administration and the other agencies involved in this case have failed to justify the use of a Categorical Exclusion ("CE") from the National Environmental Policy Act for the proposed "US 281 North at Loop 1604 Interchange Improvements."
- 6. Based on my expertise and a review of the available information, the CE is wrong in concluding that: (1) the proposed project will not add capacity; (2) the project will not have significant impacts on travel patterns; and (3) the project will not have significant impacts on planned growth and land use. A CE is not appropriate under the circumstances, and the project details that I have seen do not indicate a project that is remotely similar to categories of projects that I have seen in the FHWA regulations.
- 7. In my opinion, this project will increase capacity and will have significant impacts on travel patterns and planned growth and land use. As discussed more below, a comprehensive review of the many transportation studies on these issues (including my own) establish that adding highway capacity to an urban and congested environment—which is what this project proposes—results in significant impacts to travel patterns, planned growth and land use.
- 8. In addition to my expertise, I reached this opinion after reviewing the most important pertinent documents currently available, including the Revised February 2010 "Categorical Exclusion for Proposed US 281 North at Loop 1604 Interchange Improvements" (the "CE"); the Alamo RMA website for the project and the schematics of the project posted on the Alamo RMA website; and the 2009 Operational Analysis prepared by Rodriguez Transportation (the "operational analysis").

9. While the opinions expressed in this affidavit are not as complete as they would be if I were able to review the administrative record and undertake further analysis, I feel confident in speaking to the plaintiffs' likely success on the merits given what I have seen so far.

# The Proposed Project and the FHWA Regulation on CEs

- 10. The proposed project is a set of highway construction improvements at and around the US 281/Loop 1604 interchange with a total estimated cost of \$145,207,355. CE, pg. 2. The project will extend for approximately six miles along Loop 1604 and three miles along US 281. CE, pg. 4. The Alamo RMA estimates on its website that the project will take 2 ½ years to build. The CE estimates that the project will add 19.8 acres of impervious cover. CE, pg. 58.
- 11. The project involves adding four new "direct connector" lanes, which would add a fourth and fifth level to the current 3-level diamond interchange, and additional highway-related construction that includes the following:
  - "Non-through traffic lanes would be added to the mainlanes of both US 281 North and Loop 1604 to accommodate the merge and diverge lanes associated with the direct connectors," CE, pg. 1.
  - Widening of a Loop 1604 bridge over Panther Springs Creek and widening of two Loop 1604 bridges over Mud Creek (CE, pg. 35-36) and "bridge abutments" (CE, pg. 37).
  - Five different segments of "auxiliary lanes," CE, pg. 58-59.
  - Removal of two exits ramps, removal of one entrance ramp, addition of one entrance ramp, relocation of one exit ramp, and reversal of one entrance ramp and one exit ramp. CE, pg. 59.
  - Lighting improvements, including "continuous illumination on all the direct connector structures." CE, pg. 59-60.
  - "At Bitters Road, Huebner Road, Gold Canyon Road and Redland Road, the existing cross street structures would be widened and new turn around structures (two at each location) would be constructed." CE, pg. 60.
  - "installation of piers for elevated structures and for road base installation for auxiliary lanes." CE, pg. 60.

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<sup>&</sup>lt;sup>1</sup> http://www.alamorma.org/default/assets/File/PDF/281-1604%20Interchange/011110%20Open%20house/Appendix%20C%20Files%20Media.pdf

- Pedestrian bridges and sidewalks. Pg. 60.
- "horizontal shifts of some frontage roads." Pg. 37.
- 12. Overall, the CE refers to the project as involving at least six different types of lanes: 1) "direct connector" lanes; 2) "merge and diverge" lanes; 3) "auxiliary" lanes; 4) "non-through traffic lanes;" 5) "acceleration and deceleration" lanes; and 6) "turn-around" lanes.
- 13. In my professional judgment, the basic aspects of the project that have been disclosed establish that this is a major highway construction project that will have significant impacts to traffic patterns and land use, even without taking into account the surrounding environmental context. It is wrong to conclude otherwise.
- 14. I also cannot see how the project as a whole is similar in type or scale to the various categories and types of projects presented in the FHWA Categorical Exclusion regulations in 23 CFR sections 771.117(c) and (d). While it is conceivable that some elements of the project standing alone, such as the proposed resurfacing, or new sidewalks, or lighting improvements, or short segment of an auxiliary lane, could be appropriate for a CE, the project as a whole is not.
- 15. The FHWA's regulations do not state anywhere that a new interchange, new direct connectors, or new elevated highway lanes are appropriate for a CE.
- 16. The fact that this project will cost \$145 million and take 2 ½ years to build are additional indications that a CE is unwarranted. In my opinion, the projects listed in the CE regulations do not come close to approaching this project's substantial cost, construction time, and likely impacts to the environment.
- 17. While the list of projects in the FHWA regulations is non-exhaustive, it is also impossible, in my opinion, for this project to meet the broader definition of a Categorical Exclusion. Categorical Exclusions are defined, among other things, as actions that "do not have significant impacts on travel patterns" and "do not induce significant impacts to planned growth or land use for the area."
- 18. In the case of *West vs. Secretary of Transportation*, the United States Court of Appeals, Ninth Circuit held that the Federal Highway Administration could not approve a highway interchange construction project by relying on a documented categorical exclusion. This \$18.6 million project pales by comparison with the magnitude and potential impact of the \$145 million US 281/Loop 1604 interchange. The former project involved on- and off-ramps, auxiliary lanes, new structures, and widened existing structures, as does the latter project. When the court looked to FHWA's list of 20 actions that meet the criteria for a categorical exclusion, it found they were different in kind and degree from the proposed

interchange. "None of the examples listed in the DCE regulations approaches the magnitude of this project-an entirely new, \$18.6 million, four-lane, "fully-directional" interchange constructed over a former Superfund site and requiring 500,000 cubic yards of fill material, 30,000 tons of crushed surfacing, and 32,000 tons of asphalt concrete pavement. To the contrary, the other examples provided in 23 C.F.R. § 771.117(d) suggest that the FHWA intends a very different scale of project to escape the more detailed environmental review that would occur in an environmental assessment." The court goes on to say: "It is axiomatic that a new, fully-directional interchange cannot simultaneously relieve traffic congestion and yet have no significant impact on travel patterns." The same could be said of the US 281/Loop 1604 interchange.

# Significant Impacts to Travel Patterns, Growth and Land Use

- 19. Immediately following the project description on pg. 1 of the CE, the document states: "The proposed project would not result in additional roadway capacity." This conclusion is never explained in the CE and the project facts that have been disclosed actually establish the opposite.
- 20. The CE states that the current diamond interchange operates at a Level of Service ("LOS") of F. CE, pg. 3. As correctly noted in the CE, an LOS of F means that "traffic demand exceeds capacity." The CE predicts that "the proposed direct connectors and the proposed roadway enhancements would provide substantially improved traffic flow through the US 281 North/Loop 1604 interchange; upon completion, LOS at the interchange would improve to C." CE, pg. 8. LOS C typically represents a stable flow of traffic.
- 21. In the absence of any demand management measures, the proposed project's improvement in LOS, from F ("traffic demand exceeds capacity") to C, would ipso facto mean that project results in an expansion in capacity. It is arbitrary to conclude otherwise.
- 22. The operational analysis upon which the CE appears to rely states on pg. 2 that the major cause of queuing on US 281 is due to "capacity constraints at the diamond interchange." After discussing the proposed improvements, the operational analysis concludes: "The existing conditions indicate that this interchange operates at LOS F, with approximately 117 seconds of delay per vehicle. The direct connections reduce the delay to approximately 28 seconds per vehicle, which equates to a LOS C." Again, this substantial change in Level of Service is not due to reducing the amount of traffic entering the interchange. The time savings result from the capacity increase effectuated by the direct connectors.
- 23. Highway capacity has traditionally been thought of as the maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or

- uniform section of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions.
- 24. In this case, the addition of new highway lanes in the form of direct connectors facilitate the movement of greater traffic volumes through the US 281 and Loop 1604 interchange. In turn, the greater volumes of traffic moving through the interchange via the direct connectors necessitate expansion beyond the interchange. As the operational analysis states on pg. 12: "There will need to be added improvements on EB and WB Loop 1604 to accommodate the additional volumes from the direct connection ramp. They are currently being metered by the diamond interchange, but that will not be the case once the direct connection ramps are constructed."
- 25. As recommended by the operational analysis, the project proposed in the CE will feature several segments of "auxiliary" lanes and therefore a substantial widening of the footprint for US 281 and Loop 1604. While "auxiliary" lanes typically means non-continuous, the designation of "auxiliary" does not mean that such lanes do not add capacity. It is important to consider the length of the proposed auxiliary lanes as well as the precise need for such lanes.
- Weaving width, defined as the number of lanes between entry and exit areas, 26. influences the operation of a weaving segment. The weaving width includes merge and diverge lanes and auxiliary lanes like those being added at the US 281/Loop 1604 Interchange. As the Highway Capacity Manual (one of three bibles of transportation engineering profession) of the Transportation Research Board notes: "As the number of [merge and diverge and auxiliary] lanes increases, the throughput *capacity* increases (emphasis added)" (p. 13-18). On its face, an increase in throughput capacity at a bottleneck like the US 281/Loop 1604 interchange increases traffic flow upstream and downstream of the interchange. Again, I quote the *Highway Capacity Manual*: "Traffic flow within basic freeway sections can be highly varied depending on the conditions constricting flow at upstream and downstream bottleneck locations. Bottlenecks can be created by ramp merge and weaving segments, lane drops, maintenance and construction activities, accidents, and objects in the roadway (emphasis added)" (p. 13-2). By relieving a bottleneck, the proposed interchange will affect travel patterns upstream and downstream on both US 281 and Loop 1604.
- Another bible of the transportation engineering profession, the American Association of State Highway and Transportation Official's A Policy on Geometric Design of Highways and Streets (the AASHTO Green Book) describes auxiliary lanes as follows: "An auxiliary lane is defined as the portion of the roadway adjoining the traveled way for speed change, turning, storage for turning, weaving, truck climbing, and other purposes supplementary to through-traffic movement" (p. 824). One of those purposes is "to comply with capacity needs."

- 28. The same source defines weaving sections as "highway segments where the pattern of traffic entering and leaving at contiguous points of access results in vehicle paths crossing each other." Designs that minimize weaving movements may need a great number of structures or larger and more complex structures, with some direct connections. This is the case with the proposed US 281/Loop 1604 interchange. The AASHTO Green Book notes: "The *capacity* of weaving sections may be seriously restricted unless the weaving section has adequate length, adequate width, and lane balance (emphasis added)" (p. 819). There is no question that the proposed improvements create a high-capacity interchange.
- 29. In my opinion, the combined effect of the new direct connector lanes, auxiliary lanes, and other highway improvements (including widening and replacing bridges, adding turn-arounds, and moving and adding entrance and exit ramps) included in this project, is such that the project cannot properly be classified as not adding capacity, or for that matter, not having a significant impact on travel patterns. The obvious intention and stated effect of the project is to increase capacity and impact travel patterns. It is highly likely, moreover, that in the long run the added capacity at the interchange and surrounding the interchange will create additional pressure to further expand US 281 and Loop 1604.
- 30. The CE states on pg. 63: "While no adverse or substantial access-alteration effects are anticipated, associated induced growth effects are possible, and will be examined further." Despite the lack of support and many contradictions that follow, the CE eventually concludes that there will be no substantial direct or indirect effects to land use (CE, pg. 72) and that "substantial access-alteration/induced growth effects are not anticipated" (CE, pg. 74). As a result of these conclusions, the CE never even takes a cursory look at the cumulative and indirect effects on land use, or access alteration, or induced growth.
- The CE discloses that 70 percent of the resource study area is developed. CE, pg. 54. To assess the effects to the undeveloped land, the CE relies on the opinion of City of San Antonio senior planner, Richard Martinez. The CE states as follows:
  - "According to Dr. Martinez, the type, timing, and intensity of development could be influenced by the project; it is plausible the improvements will hasten the development of developable land. Moreover, to the extent the project increased accessibility to the area, higher density development could become more feasible, which could in turn bring about re-zoning efforts. While noting the improvements may increase the probability that currently available land will be developed, he nevertheless made no distinction between areas of foreseeable development when asked to delineate them for the project build versus nobuild scenarios. In summary, it was his conclusion that the remainder of developable land will be developed by 2030 with or without construction of project improvements." (emphasis added).

- 32. Relying on the opinion of one local official for the position that the growth will happen anyway, when there is a whole body of literature that establishes that expanding highway capacity will stimulate additional growth, especially at the edge of a growing city, is not defensible, and does not meet professional standards for analyzing growth related effects of transportation improvements.
- 33. For highway induced development to occur, three conditions must be met. First, highway capacity must be expanded. Second, traffic congestion must be present for the no-build alternative. Third, land must be available for development. All three conditions are met in this case.
- 34. First condition: As discussed above, this project adds capacity to the US 281 and Loop 1604 network.
- 35. Second condition: As the operational analysis notes on pg. 10, "there is severe congestion at the interchange of US 281 and Loop 1604." Past studies have noted conditions of LOS F at other locations along US 281. LOS F translates as stopand-go conditions during the peak hour.
- 36. Third condition: By the CE's own reckoning, 30 percent of the land within RSA is not developed.
- 37. In the short term, a variety of behavioral changes can contribute to increased traffic following highway expansion. These include route switches, mode switches, and changes in destination. In addition, new trips may be taken that would not have occurred without the additional highway capacity.
- 38. In the longer run, increases in highway capacity lower travel times so that new residents and businesses are drawn to locate near the highway. The question is always whether this new development was induced to locate there by the highway expansion or whether it would have occurred anyway, regardless of the highway. If the development itself would not have occurred otherwise, the development and the traffic it generates can be considered induced and are an indirect effect of the transportation project.
- 39. These short-term and long-term changes in land use and travel patterns are precisely what will occur in this case, which is why it is implausible to claim that there will be no significant impacts on travel patterns or land use.
- 40. In a meta-analysis of the peer-reviewed literature, Robert Cervero of UC Berkeley concludes that ". . . the preponderance of research suggests that induced-demand effects are significant, with an appreciable share of added capacity being absorbed by increases in traffic, with a few notable exceptions." The average long-term elasticity of 0.73 suggests that for every 1 percent increase in areawide highway

capacity, VMT increases by 0.73.<sup>2</sup> The actual increase in a given corridor or metropolitan area depends on the level of congestion. Adding capacity in an area with no congestion has little effect; adding capacity in an area with severe congestion has huge effects.

- 41. In my own recent review of the highway induced development literature, I conclude that:
  - Corridors receiving major highway investments experience land appreciation, and therefore are likely to be developed at higher densities than developable lands outside the corridors.
  - Nonresidential development is more strongly attracted to major highways than is residential development, particularly in the immediate vicinity of facilities.
  - The induced development impacts of interstate-quality highways are wider and deeper than those of lesser highways and streets.
  - It takes many years after construction for development to adjust to a new land use/transportation equilibrium.
  - The induced development impacts of major highways extend out at least one mile, and likely several miles along connecting arterials.
  - The relationship between highway capacity and growth is a two-way relationship, in that growth induces highway expansion as well as the reverse.<sup>3</sup>
- 42. As an expert, I see no fundamental difference between the facts in this case and in two prior NEPA cases involving highway expansions and induced development. In Sierra Club v. United States Dep't of Transp., 962 F.Supp. 1037 (N.D.III.1997), the court held that it was not reasonable for an EIS to assume the same future land-use patterns with and without a toll road. In Senville v. Peters, 327 F. Supp. 2d 335 (D.Vt. 2004) another district court reached similar conclusions.
- 43. Both induced traffic and induced development result from changes in what transportation planners refer to as "accessibility" to trip attractions. It is widely accepted and well established empirically that accessibility to trip attractions

<sup>&</sup>lt;sup>2</sup> Cervero, R. "Induced Travel Demand: Research Design, Empirical Evidence, and Normative Policies." *Journal of Planning Literature*, Vol. 17, Issue 1, 2002, pp. 3–20.

<sup>&</sup>lt;sup>3</sup> Ewing, R. "Induced Transportation Operating Costs." In R. Burchell et al., Calculating the Transportation Cost Impacts of New Development: Literature Review Related to Procedures. National Cooperative Highway Research Program Project 08-59, August 17, 2007 draft, pp. 83–104.

depends on travel times. The improvements in LOS discussed above that are associated with the Proposed US 281 North at Loop 1604 Interchange Improvements will translate directly into reductions in travel times, and substantial reductions in travel times at that. That is the whole purpose of the improvements. Hence it is incontrovertible that the improvements will result in induced traffic and induced development.

44. Finally, studies have shown that for many major highway projects the additional time that commuters spend stuck in construction traffic takes years or decades to be made up for through the ostensible increased traffic movement after construction is completed. In many cases driver delays due to construction are so long, and the time savings predicted from the finished project so minor, that it can take years for commuters to break even and begin to make up the time they lost during construction. For the massive I-15 highway in Salt Lake City, Utah, the Surface Transportation Policy Project found that commuters now using the road wouldn't break even on the time they wasted during construction until a full eight years after the project was completed. In Trenton, New Jersey, the expansion of Route 29 necessitates a detour that costs the average commuter more than 80 hours a year. The new road will save just about 25 hours a year. The break-even point for motorists using this route will not come until 2012, an incredible ten years after completion. Most alarming is the Springfield Interchange located in Northern Virginia outside of Washington, DC. Unless the Virginia Department of Transportation can remove 2,500 cars from the road every day during construction, the average commuter could waste an astonishing 1,750 hours in traffic during the eight years of construction. Motorists who stick it out hoping to realize some time savings once the project is completed will never recoup the hours lost to the reconstruction project. This kind of analysis has not been done for the US 281/Loop 1604 interchange, and will affect the cost/benefit calculus for the project.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Dated this 20<sup>th</sup> day of December, 2010.

Reid Ewing, Ph.D.

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#### REID H. EWING

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#### **EDUCATION**

Doctor of Philosophy in Urban Planning and Transportation Systems, Massachusetts Institute of Technology (1978)

Master of City Planning, Harvard University (1973)

Master of Science in Engineering and Applied Physics, Harvard University (1971)

Bachelor of Science in Mechanical Engineering, Purdue University (1970)

## **EMPLOYMENT**

Professor, Department of City and Metropolitan Planning, University of Utah, Salt Lake City, UT (2009)

Associate Professor, National Center for Smart Growth, University of Maryland, College Park, MD (2003-2008)

Director, Alan M. Voorhees Transportation Center, Rutgers University, New Brunswick, NJ (2001-2003)

Research Professor, Rutgers University, New Brunswick, NJ (1999-2003)

Associate Professor, School of Architecture, Florida International University, Miami (1995-1998)

Senior Researcher, FAU/FIU Joint Center for Environmental and Urban Problems, Ft. Lauderdale (1992-1995)

Visiting Faculty Member, Center for Urban Transportation Research, University of South Florida, Tampa (1990-1992)

Associate and Senior Planner/Engineer with Glatting Lopez Kercher Anglin, Inc., Orlando, Florida (1989-1990)

State Representative, Arizona Legislature, Phoenix, Arizona (1985-1989)

Assistant Professor, Department of Public Policy, Planning and Administration, University of Arizona (1981-1984)

Staff Director, General Oversight Subcommittee, Small Business Committee, U.S. House

of Representatives (1980-1981)

Associate Analyst, U.S. Congressional Budget Office (1977-1979)

Visiting Lecturer, University of Science and Technology, Kumasi, Ghana (1975)

Researcher, Center for Research and Training in Regional Planning, United Nations Development Program, Tehran, Iran (1973-74)

#### **OTHER MAIN AFFILIATIONS**

Associate Editor, Journal of the American Planning Association (2004-present)

Columnist, *Planning* magazine, "Planning Research You Can Use" (2006-present)

Fellow, Urban Land Institute (2004-present)

Consultant, Fehr & Peers Associates (1999-present)

Member, LEED Technical Advisory Group (2008-present)

#### SPONSORED RESEARCH (PAST 8 YEARS)

Optimal Transportation Investment Strategies (Smart Growth America -- \$35,000 task order)

Research and Analysis Regarding Traffic Calming Measures (New York City -- \$30,000 subcontract)

Florida Keys Hurricane Evacuation Study (Monroe County -- \$23,000)

Transportation Planning Services (Fehr & Peers Associates -- \$90,000)

Pedestrian- and Transit-Friendly Design book (Urban Land Institute -- \$30,000)

Urban Development, VMT, and Greenhouse Gas Emissions (U.S. Environmental Protection Agency/Hewlett Foundation -- \$94,000 -- \$24,200 subcontract)

Measuring the Impact of Urban Form and Transit Access on Mixed-Use Site Trip Generation Rates (U.S. Environmental Protection Agency -- \$266,000 -- \$58,100 subcontract)

Transportation Cost Implications of New Development (National Cooperative Highway Research Program -- \$25,000 subcontract)

Increasing Walking and Bicycling with Federal Funding Programs and State, Regional and Local Policies (Robert Wood Johnson Foundation -- \$21,000 subcontract)

Transportation and Land Use Training Course Materials (National Highway Institute/FHWA -- \$20,300 subcontract)

Multi-Modal Smart Growth Design Template (Delaware Valley Regional Planning Council, IDIQ -- \$20,000 subcontract)

Environmental Innovations: Development & Transportation (U.S. Environmental Protection Agency, IDIQ -- \$11,300 subcontract).

Traffic Calming Case Studies (Robert Wood Johnson Foundation -- \$27,000 subcontract)

Study of Sprawl and Obesity in Children (National Institutes of Health -- \$23,700).

LEED-ND Public Health Criteria Study (US Green Building Council -- \$4,100 subcontract).

Guidance for Context Sensitive Design of Major Thoroughfares (Institute of Transportation Engineers and Congress for the New Urbanism - \$16,200 subcontract)

Identifying and Measuring Environmental Determinants of Physical Activity (Robert Wood Johnson Foundation -- \$100,000)

Developing Site Plan Standards for Infill, Mixed Use, and Reuse: Model Ordinance and Commentary (New Jersey Office of State Planning)

Main Street Visual Preference Survey (New Jersey Department of Transportation)

School Sprawl Study (U.S. Environmental Protection Agency)

Master Design Plan for El Camino Real (California Department of Transportation/City of Palo Alto)

Chronic Disease and the Built Environment (Robert Wood Johnson Foundation)

Plainsboro Township Traffic Calming Evaluation and Monitoring Project (KMM)

Land-Use Efficiency Index (U.S. Environmental Protection Agency/Smart Growth America)

Treasure Valley Futures (TCSP Project -- Federal Highway Administration)

Sketch Planning Travel Model Development (TCSP Project -- Federal Highway Administration)

Flexible Highway Design Standards (New Jersey Department of Transportation)

Context-Sensitive Design Training Course (New Jersey Department of Transportation)

Traffic Calming Design Manual (Delaware Department of Transportation)

#### BOOKS

Pedestrian- and Transit-Friendly Design, Urban Land Institute/American Planning Association, under contract (an abridged version was published by the International City/County Management Association for the Smart Growth Network).

*U.S. Traffic Calming Manual*, American Planning Association/American Society of Civil Engineers, Chicago, 2009 (with S. Brown).

*Growing Cooler: The Evidence on Urban Development and Climate Change*, Urban Land Institute, Washington, D.C., 2008 (with K. Bartholomew and others).

*Traffic Calming State-of-the-Practice*, Institute of Transportation Engineers/Federal Highway Administration, Washington, D.C., 1999.

Transportation and Land Use Innovations—When You Can't Pave Your Way Out of Congestion, American Planning Association (in cooperation with the Surface Transportation Policy Project), Chicago, 1997.

Best Development Practices, American Planning Association (in cooperation with the Urban Land Institute), Chicago, 1996.

Listed by APA as one of the 100 essential planning books in the past 100 years (http://www.planning.org/centennial/greatbooks)—best selling book in APA catalogue 1997-1999—one of APA's top selling books of all time (http://www.planning.org/25anniversary/bestsellingbooks.htm).

Developing Successful New Communities, Urban Land Institute, Washington, D.C., 1991.

#### PEER-REVIEWED ARTICLES

"Traffic Generated by Mixed-Use Developments – A Six-Region Study Using Consistent Built Environmental Measures," *Journal of the American Planning Association*, in review (with M. Greenwald, M. Zhang, et al.)

"The Association between Community Physical Activity Supports and Youth Physical Activity, Overweight and BMI," *Journal of Physical Activity and Health*, in review (with S. Slater, L. Powell, and F. Chaloupka).

- "Travel and the Built Environment—A Meta-Analysis," *Journal of the American Planning Association*, accepted (with R. Cervero).
- "New Traffic Calming Device of Choice," *ITE Journal*, December 2009, pp. 26-31 (with J. Gulden).
- "Measuring the Benefits of Compact Development on Vehicle Miles and Climate Change," *Environmental Practice*, Vol. 11, Issue 3, 2009, pp. 196-208 (with J. Walters).
- "Validating Digital Measures of Urban Design," *Journal of Environmental Psychology*, in press, available online 5 April 2009 (with M. Purciel, J. Quinn, K. Neckerman, G. Lovasi, C. Weiss, and A. Rundle).
- "Can the Built Environment Influence Physical Activity? The Harvard Alumni Health Study," *American Journal of Preventive Medicine*, Vol. 37, Issue 4, 2009, pp. 293-298 (with I. Lee and H. Sesso).
- "Comparing Forecasting Methods: Expert Land Use Panel vs. Simple Land Use Model," *Journal of the American Planning Association*, Vol. 75, Issue 3, 2009, pp. 343-357 (with K. Bartholomew).
- "The Built Environment and Traffic Safety: A Review of Empirical Evidence," *Journal of Planning Literature*, Vol. 23, Issue 4, 2009, pp. 347-367 (with E. Dumbaugh).
- "Land Use-Transportation Scenario Planning: A Meta-Analysis," *Journal of the American Planning Association*, Vol. 75, Issue 1, 2009, pp. 13-27 (with K. Bartholomew).
- "Measuring the Unmeasurable: Urban Design Qualities Related to Walkability," *Journal of Urban Design*, Vol. 14, Issue 1, 2009, 65-84 (with S. Handy).
- "Urban Development and Climate Change," *Journal of Urbanism*, Vol. 1, Issue 3, 2008, pp. 201-216 (K. Bartholomew, J. Walters, S. Winkelman, and G. Anderson).
- "Traffic Calming in the United States: Is the U.S. Following Europe's Lead?" *Urban Design International*, Vol. 13, 2008, pp. 90-104.
- "Highway Induced Development: Results for Metropolitan Areas," *Transportation Research Record*, Vol. 2067, 2008, pp. 101-109.
- "Quantitative Analysis of Urban Form: A Multidisciplinary Review," *Journal of Urbanism*, Vol. 1, 2008, pp. 17-45 (with K. Clifton, G. Knaap, and Y. Song)
- "Impact of Urban Form on U.S. Residential Energy Use," *Housing Policy Debate*, Vol. 19, 2008, pp. 1-30 (with F. Rong).

- "An Examination of Personal, Neighborhood and Urbanization Correlates of Obesity in the United States," *Journal of Epidemiology and Community Health*, Vol. 62, 2008, pp. 202-208 (with C. Joshu, T. Boehmer, and R. Brownson).
- "The Built Environment and Obesity," *Epidemiologic Reviews*, Vol. 29(1), 2007, pp. 129-143 (with M. Papas, A. Alberg, R. Ewing, KJ Helzlsouer, TL Gary, and AC Klassen).
- "Relationship Between Urban Sprawl and Weight of U.S. Youth," *American Journal of Preventive Medicine*, Vol. 31, 2006, pp. 464-474 (with R. Brownson and D. Berrigan).
- "Identifying and Measuring Urban Design Qualities Related to Walkability," *Journal of Physical Activity and Health*, Vol. 3, 2006, pp. s223-240 (with S. Handy, R. Brownson, O. Clemente, and E. Winston).
- "Researchers and Policy Makers: Travelers in Parallel Universes," *American Journal of Preventive Medicine*, Vol. 30, 2006, pp. 164-172 (with R. Brownson, C. Royer, and T. McBride).
- "Traffic Calming Revisited," *ITE Journal*, November 2005, pp. 22-28 (with A. Hoyt and S. Brown). Award for best paper of the year, Institute of Transportation Engineers, District 6
- "Turning Highways Into Main Streets: Two Innovations in Planning Methodology," *Journal of the American Planning Association*, Vol. 71, 2005, pp. 269-282 (with M. King, S. Raudenbush, and O. Clemente).
- "Can the Physical Environment Determine Physical Activity Levels?" *Exercise and Sport Sciences Review*, Vol. 33, 2005, pp. 69-75.
- "School Location and Student Travel: Analysis of Factors Affecting Mode Choice," *Transportation Research Record*, Vol. 1895, 2004, pp. 55-63 (with W. Schroeer and W. Greene).
- "Measuring Sprawl and Its Transportation Impacts," *Transportation Research Record*, Vol. 1832, 2003, pp. 175-183 (with R. Pendall and D. Chen).
- "Pedestrian Safety Through a Raised Median and Redesigned Intersections," *Transportation Research Record*, Vol. 1828, 2003, pp. 56-66 (with M. King and J. Carnegie).
- "Relationship Between Urban Sprawl and Physical Activity, Obesity, and Morbidity," *American Journal of Health Promotion*, Vol. 18, September/October 2003, pp. 47-57 (with T. Schmid, R. Killingsworth, A. Zlot, and S. Raudenbush).
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"Impediments to Context-Sensitive Main Street Design," *Transportation Quarterly*, Vol. 56, Fall 2002, pp. 51-64.

"How the Built Environment Affects Physical Activity: Views from Urban Planning," *American Journal of Preventive Medicine*, Vol. 23, August 2002, pp. 64-73 (with S. Handy, M. Boarnet, and R. Killingsworth).

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"Internalizing Travel by Mixing Land Uses: Study of Master-Planned Communities in South Florida," *Transportation Research Record 1780*, 2001, pp. 115-120 (with E. Dumbaugh and M. Brown).

"Using a Visual Preference Survey in Transit Design," *Public Works Management & Policy*, April 2001, pp. 270-280.

"Asking Transit Users about Transit-Oriented Design," *Transportation Research Record* 1735, 2000, pp. 19-24.

"Impacts of Traffic Calming," Transportation Quarterly, Winter 2001, pp. 33-45.

"Adjusting Computer Modeling Tools to Capture Effects of Smart Growth," *Transportation Research Record 1722*, 2000, pp. 17-26 (with J. Walters and E. Allen).

"Sketch Planning a Street Network," *Transportation Research Record 1722*, 2000, pp. 75-79.

"Traffic Calming in New Developments (or Avoiding the Need for Future Fixes)," *Transportation Research Record 1685*, 1999, pp. 209-220.

"Is Los Angeles-Style Sprawl Desirable?" *Journal of the American Planning Association*, Winter 1997, pp. 107-126.

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"Transit-Oriented Development in the Sunbelt," *Transportation Research Record 1552*, 1996, pp. 145-152 (with T. Messenger).

"Travel Model Improvements: From Current Practice to State-of-the-Art," *ITE Journal*, August 1996, pp. 60-63 (with M. DeAnna and S. Li).

"Land-Use Impacts on Trip Generation Rates," *Transportation Research Record 1518*, 1996, pp. 1-7 (with M. DeAnna and S. Li).

"Getting Around a Traditional City, a Suburban PUD, and Everything In-Between," *Transportation Research Record 1466*, 1994, pp. 53-62 (with and P. Haliyur and W. Page).

"Residential Street Design: Do the British and Australians Know Something We Americans Don't?" *Transportation Research Record 1455*, 1994, pp. 42-49.

"Transportation Service Standards: As If People Matter," *Transportation Research Record 1400*, 1993, pp. 10-17.

"Transportation Utility Fees," *ITE Journal*, June 1993, pp. 34-38. **Award for Best Technical Paper, Institute of Transportation Engineers** 

"Transportation Utility Fees," Transportation Research Record 1395, 1993, pp. 15-22.

"Roadway Levels of Service in an Era of Growth Management," *Transportation Research Record 1364*, 1992, pp. 63-70.

"IRS Rule Making: Drawing the Fine Line Between Debt and Equity," *American Journal of Small Business*, 1981.

"Rethinking Federal Business Loan Program Policies on Tax-Exempt Financing," *Municipal Finance Journal*, 1980.

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"Linear Cities in a Non-Linear World," *Geoforum*, 1977 (with E. Tamakoloe).

"Modeling Intrametropolitan Industrial Location Realistically," *Transportation*, 1977.

"The Nature of Travel Decision-Making," *Transportation Research Record* 526, 1974.

"Psychological Theory Applied to Mode Choice Prediction," *Transportation*, 1973.

"Introducing Dimensional Analysis to the Social Sciences," *Socioeconomic Planning Sciences*, 1973.

"Potential Relief from Extreme Urban Air Pollution," Journal of Applied Meteorology,

1972.

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- "Top Thinkers vs. Top Academics," *Planning*, December 2009, p. 38.
- "What Planners Need to Know about Evaluating LEED," Planning, October 2009, p. 43.
- "Compact Development and Good Outcomes—Environmental Determinism, Self-Selection, or Some of Both?" *Planning*, July 2009, p. 36.
- "Using Safe Streets as a Research Priority," *Planning*, May 2009, p. 43.
- "Meta Analysis of Plan Quality—More than a Literature Review," *Planning*, March 2009, p. 42.
- "When Quantitative Research Trumps Qualitative—What Makes Transfer of Development Rights Work? *Planning*, January 2009, p. 49.
- "First Look at Climate Action Plans—So Much More to be Done," *Planning*, November 2008, p 50.
- "Graduated Density Zoning The Danger of Generalizing from a Sample of One," *Planning*, August-September 2008, p. 62.
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- "Land Readjustment—Learning from International Research," *Planning*, February 2008, p. 58.
- "The Demand for Smart Growth: What Survey Research Tells Us," *Planning*, December 2007, p. 52.
- "When Qualitative Research Trumps Quantitative—Cultural Economy and Smart Growth," *Planning*, October 2007, p. 52
- "Skinny Streets and Fire Trucks," *Urban Land*, August 2007, pp. 121-123 (with T. Stevens and S. Brown).
- "Security of Public Spaces: New Measures Are Reliable, But Are They Valid?" *Planning*, August 2007, p. 54.

- "The Perils of Causal Inference: Bicycling in Davis, California," *Planning*, May 2007, p. 51.
- "Regional Scenario Plans and Meta-Analysis," Planning, March 2007, p. 38.
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- "Building Environment to Promote Health," *Journal of Epidemiology and Community Health*, Vol. 59, 2005, pp. 536-537.
- "Neighborhood Schools and Sidewalk Connections: What Are the Impacts on Travel Mode Choice and Vehicle Emissions," *TR News*, 2005, pp. 4-10 (with C. Forinash and W. Schroeer).
- "Legal Status of Traffic Calming," Transportation Quarterly, Spring 2003, pp. 11-23.
- "From Highway to My Way," *Planning*, January 2001, pp. 22-27.
- "There's a Hybrid in Your Future: Tomorrow's Development Will Look Like Today's Only More So," *Planning*, November 2000, pp. 18-21.
- "Florida's Growth Management Learning Curve," *Virginia Environmental Law Journal*, 2000, pp. 375-392.
- "Mobility-Friendly Street Standards for Delaware," *Transportation Research E-Circular*, Transportation Research Board, December 2000, pp. B5/1-8.
- "Bright Ideas in Transportation," 21st Century Issue, *Planning*, December 1999, pp. 18-21.
- "Transit-Oriented Development in Florida," *Land Development*, Fall 1997, pp. 31-35 (with B. Sewell and B. Mackey).

"U.S. Experience with Traffic Calming," *Resource Papers for the 1997 International Conference*, Institute of Transportation Engineers, Washington, D.C., 1997, pp. 16-20 (with E. McClintock and R. Hall).

"Traffic Calming for New Residential Streets Enhances Housing Value," *Land Development*, Fall 1996, pp. 7-11 (with C. Hoyle).

"Travel Model Improvements: From Current Practice to State-of-the-Art," *Resource Papers for the 1995 ITE International Conference, Institute of Transportation Engineers*, Washington, D.C., 1995, pp. 222-225 (with M. DeAnna and S. Li).

"Beyond Density, Mode Choice, and Single-Purpose Trips," *Transportation Quarterly*, Fall 1995, pp. 15-24.

"Measuring Transportation Performance," *Transportation Quarterly*, Winter 1995, pp. 91-104.

"Characteristics, Causes, and Effects of Sprawl: A Literature Review," *Environmental and Urban Issues*, Winter 1994, pp. 1-15.

"Getting Around a Traditional City, a Suburban PUD, and Everything In-Between," *Environmental Planning Quarterly*, Vol. 11, Spring-Summer 1994, pp. 16-20.

"Transportation Utility Fees," *Government Finance Review*, June 1994, pp. 13-17.

"Residential Street Design: Do the British and Australians Know Something We Americans Don't," *ITE 1993 Compendium of Technical Papers*, Institute of Transportation Engineers, Washington, D.C., 1993, pp. 135-141.

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"Beyond Speed: The Next Generation of Transportation Service Standards," *ITE 1992 Compendium of Technical Papers*, Institute of Transportation Engineers, Washington, D.C., 1992, pp. 341-345.

"Roadway Levels of Service in an Era of Growth Management," *Florida Engineering Society Journal*, Vol. 45, November 1991, pp. 10-15.

"Predicted vs. Actual Levels of Service: Evaluation of Three Arterial Analysis Procedures," *ITE 1991 Compendium of Technical Papers*, Institute of Transportation Engineers, Washington, D.C., 1991, pp. 229-233 (with A. Khoury).

"Financing New Communities," Urban Land, August 1990, pp 10-14.

"The Evolution of New Community Planning Concepts," *Urban Land*, June 1990, pp. 13-17.

"What Makes a New Community Tick?" Urban Land, April 1990, pp. 2-6.

"Demand-Responsive Transit: Shifting Gears," *Traffic Quarterly*, 1979.

"Some Principles of Business Loan Program Design," *Urban Land*, 1981.

"A Development Program for the '80s: SBA's New Development Company Program," *CUED's Commentary Magazine*, 1981.

# **CHAPTERS IN BOOKS**

"School Location and Student Travel: Analysis of Factors Affecting Mode Choice in Three Metropolitan Areas," In *School Siting and Healthy Communities: Why Where We Invest in School Facilities Matters*, Michigan State University Press, in press (with M. Zhang and M. Greenwald).

"Compactness vs. Sprawl – Have Energy, Climate, Health, and Demographics Resolved the Debate?" In *Urban Design: Roots, Influences, and Trends (The Routledge Companion to Urban Design)*, Routledge, New York, in press (with A.C. Nelson and K. Bartholomew).

"Highway Induced Development: What Research in Metropolitan Areas Tells Us," In M. Boarnet (ed.), *Transportation Infrastructure: The Challenges of Rebuilding America*, American Planning Association, Chicago, IL, 2009, pp. 27-40.

"Traffic Calming," In *Traffic Engineering Handbook*, Institute of Transportation Engineers, Washington, DC, Chapter 15, 2009, pp. 531-583 (with J. Gulden).

"Future of Land Development," In *Metropolitan Development Patterns*, Lincoln Institute of Land Policy, Cambridge, MA, 2000, pp. 66-71.

"Beyond Speed: The Next Generation of Transportation Performance Measures," In D. Porter (ed.), *Performance Standards for Growth Management*, American Planning Association, Chicago, 1996, pp. 31-40.

"Residential Street Design: Do the British and Australians Know Something We Americans Don't?" *A Compendium of Articles on Residential Street Traffic Control*, Institute of Transportation Engineers, Washington, D.C., 1993, pp. 33-39.

"New Town Planning in the United States: From Radburn to Rancho Santa Margarita," In P. Merlin and M. Sudarskis (eds.), *New Towns in Perspective*, INTA Press, The Hague, 1991, pp. 119-141.

#### **MAJOR REPORTS**

CO2 Reductions Attributable to Smart Growth in California, ClimatePlan/Natural Resources Defense Council, Sacramento, 2008 (with A.C. Nelson).

Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities—Proposed Recommended Practice, Institute of Transportation Engineers, Washington, D.C., 2006 (with Kimley-Horn and Associates and others).

Understanding the Relationship between Public Health and the Built Environment, LEED-ND Core Committee, 2006 (with Design, Community & Environment).

Endangered By Sprawl: How Runaway Development Threatens America's Wildlife, National Wildlife Federation/NatureServe/Smart Growth America, Washington, D.C., 2005 (with J. Kostyak).

*Travel and Environmental Implications of School Siting*, U.S. Environmental Protection Agency, Washington, D.C., 2003 (with W. Schroeer and W. Greene).

*Measuring the Health Effects of Sprawl*, Smart Growth American/Robert Wood Johnson Foundation, Washington, D.C., 2003 (with B. McCann).

Measuring Sprawl and Its Impact, Smart Growth America/U.S. Environmental Protection Agency, Washington, D.C., 2002 (with R. Pendall and D. Chen).

Driven to Spend: The Impact of Sprawl on Household Transportation Expenses, Surface Transportation Policy Project, 2000 (with B. McCann and M. Ernst).

Why Are the Roads So Congested? A Companion Analysis of the Texas Transportation Institute's Data on Metropolitan Congestion, Surface Transportation Policy Project, 1999 (with B. McCann and M. Ernst).

Road Work Ahead: Is Construction Worth the Wait? Surface Transportation Policy Project, 1999 (with B. McCann and M. Ernst).

# **CONSULTING (PAST 8 YEARS)**

Park City Traffic Calming Project (sub-consultant to Fehr & Peers -- 2009)

Napa Pipe Project Traffic Impact Analysis, Napa Redevelopment Partners (2008-09)

Study of Potential Reductions in Vehicle Miles Traveled (VMT) and Greenhouse Gas Emissions (GHG) through Land Use Planning, Transit Investments, Pricing Policies and

other Policies Designed to Reduce VMT, ClimatePlan and Natural Resources Defense Council (2008)

NEPA Challenge to US 281 Highway Project, Aquifer Guardians in Urban Areas, San Antonio (2008)

Observational Validation of Urban Design Measures for New York City, Columbia University, New York (2008)

Managing Growth Around Lewes, Lewes, DE (2007)

Broadening the Connection Between Public Transportation and Petroleum Conservation, American Public Transportation Association (2007 – sub-consultant to ICF Consulting)

Comprehensive Amendments to the County Road Code, Montgomery County, MD (2007)

Analyzing Induced Development for the Intercounty Connector, Surface Transportation Policy Project and others, Washington, D.C. (2006-2007)

Downtown Parking Plan, City of Reno, NV (2006 - sub-consultant to Fehr & Peers)

Traffic Calming Plans, Cities of La Habra and Brea, CA (2006 - sub-consultant to Fehr & Peers)

College Park Charrette, MD, U.S. EPA Smart Growth Implementation Assistance (2006-2007)

Gateway-1 Highway Planning Study, Maine Department of Transportation (2004-2006 – sub-consultant to HNTB)

Redesign of Downtown Columbia, MD, General Growth Properties (2005-2006)

Traffic Analysis for Frederick County, MD, Friends of Frederick County (2005-2006)

Re-Analysis of CALTRANS Median Tree Safety Study, Joint Venture: Silicon Valley Network (2005)

Developing Measures of the Built Environment Using Aerial Photographs, Institute for Health Research and Policy, University of Illinois at Chicago (2005)

New Morgan Town Plan, Arcadia Land Company, Wayne, PA (2004)

Legal Challenge to Intercounty Connector Highway, Environmental Defense et al. (2004)

Potential Measures of the Built Environment for Merge with NHANES Survey Data,

National Cancer Institute, Bethesda, MD (2004)

Impact of Metropolitan Growth on Biodiversity, National Wildlife Federation (2004 – sub-consultant to Smart Growth America)

Technical Assistance for Brownfield Redevelopment and Smart Growth, U.S. Environmental Protection Agency (2004 – sub-consultant to ICF Consulting)

Land Use Expert Panel for the Intercounty Connector Highway, Maryland State Highway Administration (2003-2004)

Street Design Guidelines, City of Charlotte, NC (2002-2004 – sub-consultant to HNTB)

Traffic Calming Guidelines and Audit Procedures, City of Charlotte, NC (2003-2004)

Review of Approaches to Transportation Adequacy Measurement, HNTB (2003 – peer review)

Legal Challenge to Gainesville Comprehensive Plan, Sierra Club and Sustainable Alachua County (2003 – expert witness)

Regional Traffic Calming Initiative, Somerset County, NJ (2003 – sub-consultant to Louis Berger)

Pedestrian Technical Guidelines, Santa Clara Valley Transportation Authority, San Jose, CA (2003 – sub-consultant to Community Design & Architecture)

Multimodal Transportation Districts, Florida Department of Transportation, Tallahassee (present – sub-consultant to Reynolds, Smith & Hills)

Alternative Designs for Lincoln Highway, Sadsburyville, PA, Arcadia Land Company (2002-2003)

Route 41 Corridor Plan, Chester County, PA (2001-2002 – sub-consultant to McCormick, Taylor & Associates)

Traffic Calming Guidelines, City of Sacramento (2001-2002 – sub-consultant to Fehr & Peers Associates)

Worthing Place Development Challenge, Delray Beach, FL (2001-2002 – expert witness)

Pegasus Bay New Town, Christchurch, New Zealand (2000-2002 – planner and expert witness)

Transportation Planning for Chicago, Illinois Department of Transportation (2000-2001 – sub-consultant to Fehr & Peers Associates)

Traffic Calming Plan for Bernal Heights, City of San Francisco (2000-2002 – subconsultant to Fehr & Peers Associates)

Transportation/Land Use Policies, Montgomery County, MD (2000-2001 - subconsultant to LDR/HNTB)

Traffic Calming Policies and Plans, Ithaca, NY (1999-2001- sub-consultant to Fehr & Peers Associates)

Alternative Development Scenarios, Sarasota County, FL (2000-2001)

US 17 Corridor Study, South Carolina Coastal Conservation League (2000)

Scottsdale General Plan Update, City of Scottsdale, AZ (2000)

Land Use/Transit Plan, Charlotte-Mecklenburg County, NC (1998-2000 - sub-consultant to LDR/HNTB)

Mobility-Friendly Design Standards, WILMAPCO/DelDOT, DE (1998-1999 - subconsultant to LDR/HNTB)

NEPA Challenge to I-95 Expansion, Conservation Alliance of Palm Beach County (2000 – expert witness)

#### **KEYNOTE AND FEATURED ADDRESSES (PAST 8 YEARS)**

# Year 2009

October 27: A Planning Monthly Event, City of Henderson, NV "Growing Cooler"

September 7: World Congress 2009, International Federation of Housing and Planning, Berlin, Germany "Mobility"

June 18: Growing Cooler: Energy-Efficient Land Use and Transportation Planning, CLEER - Clean Energy Economy for the Region, Glenwood Springs, CO "Growing Cooler: Planning for Energy Security and Climate Change"

January 5: How Land Use Can Help Minnesota Reach Its Greenhouse Gas Reduction Goals, University of Minnesota, Minneapolis, MN "Growing Cooler"

- December 17: Kansas Transportation Summit, Kansas Department of Transportation, Kansas City, KS
- "Urban Development, Energy, and Climate Change"
- November 7: Where are the Eastern Shore's Roads Taking Us?, Eastern Shore Land Conservancy, Wye Mills, MD
- "A New Era for Transportation"
- September 11: Summit on Sustainability and the Environment, Mid-Ohio Regional Planning Commission, Columbus, OH "Growing Cooler"
- September 4: Climate Change Speaker Series, Clemson University, Greenville, SC "Growing Cooler"
- June 27: Energy Sustainability and Transport: Discovering Pathways to 2040, Wellington, New Zealand
- "Less CO2 By Design: What Can Integrating Transport, Planning and Urban Design Really Achieve?"
- May 29: Designing Healthy Livable Communities, Michigan Department of Community Health, Lansing, MI
- "Health and the Built Environment (and What We Can Do to Improve Both)"
- May 10: UnJAM 2035 Regional Summit, Thomas Jefferson Planning District Commission, Charlottesville, VA
- "Growing Cooler: The Evidence on Urban Development and Climate Change"
- March 27: Community Presentation, VIA Metropolitan Transit/American Institute of Architects, San Antonio, TX
- "Growing Cooler: Urban Development and Climate Change"

- December 6: Roundtable Luncheon, Metropolitan Planning Commission, Chicago, IL "The Heat is On: Why Hybrid Vehicles Won't Save the Planet"
- September 27: Minnesota State Planning Conference, Rochester, MN "Creating Walkable Places: From Statewide Smart Growth to Context-Sensitive Street Design"
- June 28: Transit Education and Awareness Speaker Series, Indianapolis Metropolitan Planning Organization, Indianapolis, IN
- "Costs of Sprawl and Auto Dependence"

May 30: Napa County Speakers Program, Napa County Transportation and Planning Agency, Napa, CA

"Coordination of Transportation and Land Use"

May 10: Designing a 21st Century City, Raleigh Department of City Planning, Raleigh, NC

"Transit-Oriented Development: How Do We Get There from Here?"

March 8: Global Warming, Land Use, and Infrastructure Investment, Hewlett and Packard Foundations, Half Moon Bay, CA

"Urban Development, Travel, Emissions, and Smart Growth Policies"

February 6: Livable Streets Forum, UC Berkeley College of Environmental Design, Berkeley, CA

"Influences on My Work"

# Year 2006

December 10: AltCar Expo 2006, Los Angeles, CA

"Smart Growth: Best-in-Class Examples"

May 3: GreenTrends 2006: Green Building Conference, University of Florida, Gainesville, FL

"Best Development Practices 1996-2006: A Retrospective"

April 4: School of Public Health Series, State University of New York, Albany, NY "Measuring the Health Effects of Sprawl"

February 22: Transportation and Land Use Connection Series, Kane County Board, IL

"Measuring the Health Effects of Sprawl"

"Transportation and Land Use Innovations"

February 9: Guest Speaker Series, Truckee Meadows Regional Planning Agency, Reno, NV

"Best Development Practices: Exemplary Communities" Year 2005

December 7: Virginia Tech Lecture Series, Alexandria, VA

"Obesity Epidemic among American Youth--Is Urban Sprawl a Factor?"

October 26: North Carolina Metropolitan Planning Organizations, Greenville, NC "Coordinating Land Use and Transportation: Best-in-Class Examples"

October 14: Maryland Citizen Planners Association, Hagerstown, MD "The Physical Environment and Healthy Communities"

March 31: Regional Leadership Series, Tampa, FL "Impacts of Urban Sprawl"

March 7: Committee for a Sustainable Treasure Coast, Ft. Pierce, FL "Implications of Large Lot Zoning in the Countryside"

February 12: Streets Design Forum, City of Longmont, CO "Traffic Calming Revisited"

## Year 2004

October 19: Symposium Series, Hubert H. Humphrey Institute for Public Affairs, University of Minnesota, Minneapolis, MN "Health Effects of Sprawl"

October 15: Planning at the Crossroads: Making Great Communities Happen in the Heartland, APA Regional Planning Conference, Indianapolis, IN "Health Effects of Sprawl"

June 16: Sustainable Mobility for Western Municipalities, Edmonton, Alberta "Understanding the Challenge"

April 22: Annual Conference, California Healthy Cities and Communities, Riverside, CA "Healthy Cities and Smart Growth"

March 29: 2004 Upwind Downwind Air Quality Conference, Hamilton, Canada "Essence of Smart Growth: Coordinated Land Use and Transportation"

March 10: Colloquium on Cancer Prevention and Control, National Institutes of Health, Rockville, MD

"Relationship Between Urban Sprawl and Physical Activity, Obesity, and Morbidity"

February 26: The Brawl Over Sprawl Conference, Property Council of Australia, Brisbane, Australia

"Sprawl and Growth Management"

February 20: Healthy Communities, Healthy People Conference, University of Virginia, Charlottesville, VA

"Community Planning for Physical Activity: Designing Active Neighborhoods

# Year 2003

December 5: Regional Rural Lands Symposium, Treasure Coast Regional Planning Council, Port St. Lucie, FL

"Implications of Large Lot Zoning in the Countryside and Incrementally Moving Urban Service Boundaries"

November 13-14: Lecture Series, Champaign-Urbana Mass Transit District, Urbana, IL "Impact of Sprawl on Public Health"

"Best Development Practices for Residential and Commercial Land Uses"

October 2: Congressional Briefing, Washington, DC

"A Compelling Case for Addressing Public Health in Transportation and Land Use Policy"

August 28: National Teleconference on the Impact of the Built Environment on Health "Measuring the Health Effects of Sprawl"

April 17: School of Architecture and Urban Design, University of Kansas, Lawrence "Taming Traffic and Sprawl"

February 25: New Jersey Future, New Brunswick "Impacts of Sprawl and the Link to Public Health"

February 18: Tree Foundation, Savannah, GA "Highway or My Way"

#### Year 2002

September 30: RWJF National Program Office Opening, University of North Carolina at Chapel Hill

"Travel, Physical Activity, and Sprawl"

September 10: Tricentennial Town Meeting, Savannah, GA "Visionary Planning"

May 14: New Jersey Public Policy Seminar Series, Trenton Academic Center "Sprawl and Public Health"

February 25: A Practical Conference on Improving Air Quality, Hamilton, Ontario "Community Design and Traffic Management"

## <u>Year 2001</u>

April 21: Siler Lecture Series, Department of City and Regional Planning, University of North Carolina at Chapel Hill

"Smart Growth: Coordinating Land Use and Transportation"

April 11: Speaker Series, Centers for Disease Control and Prevention, Atlanta "Interaction of Land Use, Transportation, and Physical Activity"

<sup>&</sup>quot;Traffic Calming and New Development"

March 30: Smart Growth Speaker Series, University of Arizona, Tucson, "Designing a Better Suburb: Smart Growth that Can Work"

March 28: Livable Communities Forum, Partnership TMA, Lederach, PA "Traffic Calming State-of-the-Practice"

March 9: Knight Program in Community Building, School of Architecture, University of Miami, FL

"Research on Smart Growth"

#### Year 2000

December 1: National Press Club, AICP Millennium Symposium, Washington, D.C. "The American Community in the New Millennium: Debate about Growth"

September 14: Annual Conference, Louisiana Chapter, American Planning Association "Aesthetics and Land Use Management"

September 8: Urban Sprawl Symposium, University of Illinois at Chicago, Chicago, IL "Characteristics, Causes, and Costs of Sprawl: Debate with Professor Peter Gordon, USC"

February 10: Valley Forward Forum 2000, Phoenix, AZ "The Importance of Transportation in Building Livable Cities"

## TECHNICAL PRESENTATIONS (PAST 8 YEARS)

# <u>Year 2009</u>

September 29: Subcommittee on Children's Health, Senate Committee on Environment and Public Works, Washington, D.C.

"Promoting and Improving Children's Health"

June 23: Keeping Pace with Bus Rapid Transit, Utah Transit Authority, Salt Lake City, UT

"Transit and Development"

June 2: Transit Initiatives and Communities Conference, Salt Lake City, UT "Key Components of a Green Transportation Measure"

May 13: Wilmington Area Planning Council, Newark, DE "Mixed Use Traffic Mitigation"

April 28: Institute of Urban and Regional Development, UC Berkeley, Berkeley, CA "Low Carbon Cities"

April 26-29: National Planning Conference, American Planning Association, Minneapolis, MN (three presentations)

"U.S. Traffic Calming Manual"

"Infrastructure Investment Effects on Development and Travel"

"Climate Change and LEED Ratings"

March 13: Urban Planning Council, Abu Dhabi, UAE "Key Issues in Street Design"

February 19: New Zealand Centre for Sustainable Cities, Wellington, NZ "The Road to Hell Is Paved with Good Intentions – Urban Form"

January 22: New Partners for Smart Growth Conference, Albuquerque, NM "Growing Cooler – One Year Later"

January 12: Transportation Research Board Annual Meeting, Washington, D.C. "Traffic Generated by Mixed-Use Developments"

# Year 2008

October 31: Environmental Science and Engineering Seminar Series, University of New Hampshire, Durham, NH "Growing Cooler"

October 22: Our Town Community Forum, Wilmington Area Planning Council, Newark, DE

"Transportation and Energy: Setting Priorities for a Sustainable Future"

October 21: Environmental Center, Bucknell University, Lewisburg, PA "Urban Form and Climate Change"

September 18: Virginia Energy and Sustainability Conference, Virginia Sustainable Building Network, Richmond

"Sustainable Community Design: National Perspective"

June 12: Growing Communities Conference, Grand Valley Metropolitan Council, Grand Rapids, MI

"Cities as Energy and Climate Change Solutions"

June 11: Moving Forward Together, Oregon Association of Realtors, Eugene, OR "Future of Transportation"

May 28: Developing Green Conference, Urban Land Institute, Charlotte, NC "Growing Cooler"

- May 15: ICLEI Local Action Summit 2008, Albuquerque, NM "How to Align Planning, Land Use and Climate Protection"
- May 12: Internal Policy Forum, Federal Transit Administration, Washington, D.C. "Growing Cooler: The Evidence on Urban Development and Climate Change"
- May 1: Presentation, Oregon Land Conservation and Development Commission, Salem, OR
- "Growing Cooler: The Evidence on Urban Development and Climate Change"
- April 25: Congressional Briefing, Environmental and Energy Study Institute, Washington, DC
- "Growing Cooler: Transportation Policy and Developing Climate-Friendly Communities"
- April 24: EcoCity World Summit, San Francisco, CA "The Future of Cities, Towns and Villages"
- April 11: Journalists Forum on Climate Change and Cities, Lincoln Institute of Land Policy, Cambridge, MA
- "Mitigation: Climate Change as Rationale for Planning and Development"
- April 8: Growing Green Conference, Urban Land Institute, Charlotte, NC "Growing Cooler: Minimizing Development's Carbon Footprint"
- April 3: School Siting & Healthy Communities Symposium, Florida State University, Tallahassee, FL
- "School Location and Student Travel: Analysis of Factors Affecting Mode Choice in Three Different Metropolitan Areas"
- February 29: Northeast Climate and Competitiveness Summit, Regional Plan Association, Baltimore, MD
- "Regional Coordination and Climate Change"
- February 28: Northeast State Planning Leadership Retreat, Regional Plan Association, Baltimore, MD
- "Growing Cooler"
- February 7-8: New Partners for Smart Growth Conference, Local Government Commission,

(two presentations)

- "Growing Cooler: The Evidence on Urban Development and Climate Change" "Show Me the Data"
- February 6: Smart Growth Advisory Group, National Association of Realtors, Washington, D.C.

"Growing Cooler: The Evidence on Urban Development and Climate Change"

January 16: Annual, Transportation Research Board, Washington, D.C. (someone stood in for me—I got sick)

"Highway Induced Development: What Research in Metropolitan Areas Tells"

# Year 2007

December 11: Sustainable Solutions to Climate Change in Delaware, AIA Delaware, Lewes, DE

"Growing Cooler: The Evidence on Urban Development and Climate Change"

October 25: ULI Fall Meeting, Las Vegas, NV "Climate Panel"

September 19: GrowSmart Maine Summit, Augusta, Maine "Reducing Global Warming"

September 7: Society of Environmental Journalists, Palo Alto, CA "Building Healthier Communities"

May 4: Blueprints for a Healthy Community, Mecklenberg County Health Department, Charlotte, NC

"Health and the Built Environment"

April 24: Developing Green: Integrating Sustainability with Success, Urban Land Institute, Pittsburgh, PA

"Land Use, Transportation and Sustainable Communities of the Future"

April 16-17: National Planning Conference, American Planning Association, Philadelphia, PA

(two presentations)

"Planning that Reshaped America"

"Shared Streets and Spaces"

March 30: MSPZI Conference on Child-Friendly Cities, University of Memphis, Memphis, TN

"Child-Accessible Cities"

March 14: Public Work Officers Institute, League of California Cities, Monterey, CA "Traffic Calming and Roundabout Myths"

February 8-10: Annual Conference, New Partners for Smart Growth, Los Angeles, CA (three presentations)

"Technical Assistance: How to Help Communities and States Get to Smart Growth" "It's Easy Being Green...and Healthier Too"

"Changing Climate Through Smart Growth"

# Year 2006

December 4: National Environmental Public Health Conference, Centers for Disease Control, Atlanta

"Injury and Violence and the Built Environment"

November 9-11: Annual Conference, Association of Collegiate Schools of Planning, Fort Worth, TX

(two presentations)

"The Impact of Urban Sprawl on U.S. Residential Energy Use"

"Relationship between Urban Sprawl and Weight of U.S. Youth"

October 23: Newsweek-Harvard Conference on Heart Health, Boston, MA "Community Approaches to Prevention"

September 7: Institute of Transportation Engineers, Border Section, San Diego, CA "Smart Growth Index"

August 16: International Union for Health Promotion and Education/Centers for Disease Control and Prevention, Atlanta, GA

"Effectiveness of Regional Growth Management and Local Urbanist Planning"

July 15: World Planning Schools Congress, Mexico City

"Relationship between Urban Sprawl and Weight of U.S. Youth"

May 6: Environmental Design Research Association 37th Annual Meeting, Atlanta, GA "Urban Design Qualities Related to Walkability"

May 4: Gateway 1 Conference, Maine Department of Transportation, Rockport, ME (three presentations)

"Beyond the Traffic Signal: Innovative Techniques for Calming Traffic"

"Flexible Highway Design – How "Low Can You Go?"

"The Good, the Bad, and the Ugly: What Is Your Visual Preference?"

April 7: Summit on Childhood and Adolescent Obesity, College of Health and Human Performance, University of Maryland, MD, College Park, MD

"Built Environment"

April 23-26: 2006 National Planning Conference, American Planning Association, San Antonio, TX

(three presentations)

"Planning for Active Living"

"A Conversation About Livable Streets"

"Urban Design Qualities Related to Walkability"

January 25: Annual Conference, Transportation Research Board, Washington, D.C. "Identifying and Measuring Urban Design Qualities Related to Walkability"

#### Year 2005

November 9: Palm Beach County 2005 Economic Summit, West Palm Beach, FL "Smart Growth & Transportation"

October 28-29: Annual Conference, Association of Collegiate Schools of Planning, Kansas City, MO

(two presentations)

"Comparing Forecasting Methods: Expert Land Use Panel vs. Simple Land Use Allocation Model"

"Identifying and Measuring Urban Design Qualities Related to Walkability"

October 8: Transit and the Design of 21st-Century Communities, American Institute of Architects, Washington, D.C.

"Urban Redevelopment in the Absence of High Quality Transit"

September 10: Rail-Volution Conference, Salt Lake City

"Improving the Model Community: New Concepts for Columbia"

August 26: 2005 Midwest Region Context Sensitive Design & Solutions Workshop, Minneapolis

"Design Flexibility on Urban "Main Streets"

August 25: Asilomar Conference on Transportation Energy and Environmental Policy, Monterey, CA

"Generalizing from Sacramento: What Is Really Possible?"

June 2: Environmental Solutions to Obesity in America's Youth, National Institute of Environmental Health Sciences, Washington, D.C.

"Identifying and Measuring Urban Design Qualities Related to Walkability"

February 25-26: Active Living Research Conference, Robert Wood Johnson Foundation, San Diego

"Measuring Perceptual Qualities of Urban Environments"

January 10-12: Annual Meeting, Transportation Research Board, Washington, D.C. (three presentations)

"Balancing User Needs with New Street Guidelines"

"Comparing Forecasting Methods: Expert Land Use Panel vs. Simple Land Use Allocation Model"

"Traffic Calming Revisited"

November 8: Annual Conference, American Public Health Association, Washington, D.C.

"Solutions: Use of Transit Oriented and Other Designs to Promote Biking and Walking"

September 29: NCSG Debate with Professor Harry Richardson "Urban Sprawl or Smart Growth"

October 22-23: Annual Conference, Association of Collegiate Schools of Planning, Portland, OR

"Elasticities of Walking with Respect to Density, Diversity, and Design"

"Building Smart Schools: Overcoming Obstacles to Walkable Schools"

September 20: Rail-Volution Conference, Los Angeles "Physical Activity and Density: What the Experts Say"

May 25: Obesity and Built Environment: Improving Public Health Through Community Design Conference, National Institute of Environmental Health Sciences "Communities and Families"

May 3: Maryland Smart Growth Leadership Program, Baltimore "What Can Divided Highways Teach Us?"

April 24-28: National Planning Conference, American Planning Association, Washington, D.C.

"Public Health in the Public Eye"

"Overcoming Obstacles to Walkable Schools"

April 27: Knight Center for Specialized Journalism, College Park "Does Sprawl Matter? An Issues Debate" (with Randal O'Toole, Thoreau Institute)

January 30: Annual Conference, Active Living Research, Del Mar, CA "Identifying and Measuring Environmental Determinants of Physical Activity"

January 23: Annual Conference, Partners for Smart Growth, Portland, OR "Developing the Smart Growth Movement Workplan"

January 14: Annual Conference, Transportation Research Board, Washington, D.C. "School Location and Student Travel: Analysis of Factors Affecting Mode Choice" co-authored two other presented papers

#### Year 2003

November 18: Maryland Smart Growth Leadership Program, Baltimore

"Transportation and Public Health"

May 1: Science of Sprawl Conference, Trenton

"Planning and Public Health: New Issues, New Collaboration"

April 8: TransAction 2003 Conference, Atlantic City

"Flexible Design of New Jersey's Main Streets"

March 31: National Planning Conference, American Planning Association, Denver "Urban Form and Public Health"

February 21: Conference on Sustainable Suburban Development, University of California at Riverside

"Measuring Sprawl and Its Effects"

January 13-15: Annual Meeting, Transportation Research Board, Washington, D.C.

"Impediments to Context-Sensitive Main Street Design"

"Measuring Sprawl and Its Effects"

January 11: Connecting Transportation Policy with Physical Activity, Center for Science in the Public Interest, Washington, D.C.

"Transportation, Obesity, and Public Health"

#### Year 2002

November 18: Seminar for American Journalists, National Press Foundation,

Washington, D.C.

"Measuring Sprawl and Its Effects"

September 8: Smart Growth and Transportation Conference, Transportation Research Board, Baltimore

"Sprawl and Transportation"

June 28: Mid-Atlantic Sustainability Conference, Newark

"Healthy Communities, Healthy People"

May 29: 49th Annual Meeting, American College of Sports Medicine, St. Louis

"Understanding Environmental Influences on Physical Activity"

April 13-17: National Planning Conference, American Planning Association, Chicago (four presentations)

"Traffic Calming and Context-Sensitive Highway Design"

"Best Development Practices"

"Transportation and Community and System Planning"

"Is Sprawl Killing Us"

March 12: State Roundtable on Global Climate Change, Center for Clean Air Policy, Washington, D.C.

"Smart Growth—Best Practices"

March 4: Symposium, Planning the Physically Active Community, American Planning Association, Chicago

"Sprawl and Public Health"

February 12: Livability Forum, Federal Highway Administration, Washington, D.C. "Research on Transportation and Livability"

January 25: Building Safe, Healthy and Livable Communities, New Partners for Smart Growth, San Diego

(two presentations)

"The Smart Growth Transportation Model"

"When Main Street Is a State Highway"

January 15: Annual Meeting, Transportation Research Board, Washington, D.C. "Making the Connection: Transportation, Community Design, and Public Health"

# Year 2001

November 26: Annual Planning Conference, New Jersey Chapter, American Planning Association

"Perspectives on Smart Growth: Transportation, Public Health and the Cost of Sprawl"

October 19: Transportation and Land Use Planning Applications Forum, University of Florida, Gainesville

"Development of Transportation and Land Use Sketch Planning Methods"

October 15: Policy and Research Symposium Series, Public Policy Program, UCLA, Lake Arrowhead, CA

"Evaluating the Transit-Land Use Connection: What Does the Research Tell Us?"

October 5: Innovative Approaches to Understanding and Influencing Physical Behavior, Cooper Institute, Dallas

"Land Use and Transportation Data"

September 10: International Public Works Congress, American Public Works Association, Philadelphia

"Context-Sensitive Highway Design Standards: International Overview"

September 6: Context Sensitive Highway Design: Transferring Lessons from Our Collective Experiences, Federal Highway Administration, Missoula, MT "Learning from the Pioneers"

August 22: Annual Meeting, Institute of Transportation Engineers, Chicago "Flexible Design Standards for New Jersey Main Streets"

March 23: Land Use and Urban Development Forum, Maricopa Association of Governments, Phoenix

"Hybrid Development"

March 22: Annual Scientific Sessions, Society of Behavioral Medicine, Seattle "American Cities (and Suburbs) Are Dangerous for Pedestrians: Outcomes of Poor Planning"

March 13-14: National Planning Conference, American Planning Association, New Orleans

(two presentations)

"Environmental Benefits of the New Urbanism"

"Mobility and Livability in Major Travel Corridors"

January 9: Annual Meeting, Transportation Research Board, Washington, DC "Travel and the Built Environment"

### Year 2000

December 5: Partners for Smart Growth Conference, Atlanta "The Free Market and Smart Growth"

October 6: Rail-Volution Conference, Denver

"Sprawl: What is the Real Cost?"

August 9: Annual Meeting, Institute of Transportation Engineers, Memphis, TN "Traffic Calming Liability Issues"

June 16: Annual Meeting, Congress for the New Urbanism, Portland, OR "Narrowing Streets: Ways to Calm Traffic"

April 20: Advancing Smart Growth Forum, APA/Smart Growth Funders Network "Strategy Recommendations"

April 17-18: National Planning Conference, American Planning Association, New York (2 presentations)

"Humanizing Streets"

"Myths and Facts of Compact Development"

January 12-13: Annual Meeting, Transportation Research Board, Washington, DC (3 presentations)

"Sketch Planning a Street Network"

"Asking Transit Users About Transit-Oriented Design"

"Traffic Calming Main Thoroughfares"

# WORKSHOPS, TRAINING COURSES, AND EXPERT PANELS (PAST 8 YEARS)

#### Year 2009

- June 26: 2009 Growth Management Implementation Workshop, Florida Department of Community Affairs, Orlando, FL
- June 5-6: Energy & Climate Change Workshop, American Planning Association, Chicago, IL
- May 27-28: Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Diamond Bar, CA

# Year 2008

- November 14-15: Energy & Climate Change Workshop, American Planning Association, Atlanta, GA
- May 16: Training Session, Transportation Emissions at the Local Level, ICLEI Local Action Summit 2008, Albuquerque, NM
- April 23: Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Walnut Creek, CA
- April 22: Growing Cooler Workshop, National Center for Smart Growth, University of Maryland, College Park, MD

- October 23: Big City Planning Directors' Institute, Harvard University/Lincoln Institute, Cambridge, MA
- September 14: Design for Health, University of Minnesota, Minneapolis, MN
- June 26: Land Use, Energy and Climate Change Workshop, California Energy Commission, Sacramento, CA
- May 22-23: Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Pasadena, CA
- May 17: Laytonville Design Studio, California Local Government Commission, Laytonville, CA

January 18: Policy & Planning Retreat, Urban Land Institute, Washington, D.C.

# Year 2006

- October 30: Transport Greenhouse Gas Emissions Dialogue, World Resources Institute, Washington, DC
- May 17: Roundtable Discussion—Growth and Planning, Montgomery County, MD
- January 21: Workshop, Let's Talk about Route 1, EPA Smart Growth Implementation Assistance, College Park, MD

# Year 2005

- November 29-30: Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Sacramento, CA
- November 16: Healthy Neighborhood Design Workshop, East Baltimore Development Inc., Baltimore, MD
- April 20: Smart Growth Leadership Program, National Center for Smart Growth, Baltimore, MD
- March 15-16: Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Glendale, CA
- March 1: Workshop on Update of FTA New Starts Land Use Assessment Guidance, Urban Land Institute and Federal Transit Administration, Washington, D.C.
- January 17-19: International Workshop, Tel-Aviv Metropolitan Area Mass Transit Master Plan, NTA, Tel-Aviv, Israel

- December 3: Training Course, Land Use Planning for Economic Development, Maryland Economic Development Association, Baltimore, MD
- October 13: Training Course, Dealing with Traffic, Institute for Global Chinese Affairs, College Park, MD
- June 29-30: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Pensacola, FL
- June 23-25: Mayors' Institute, Regional Plan Association of New York and New Jersey, Princeton, NJ

- May 18-20: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Springfield, MO
- May 12-13: Training Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Mountain View, CA
- May 5-7: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Los Angeles
- April 5-6: Expert Panel, Developing a Framework for Evaluating State Physical Activity Legislative Policies, National Cancer Institute, National Institutes of Health, Washington, D.C.
- March 19: Advisory Panel on Benefits of Biodiversity, Defenders of Wildlife and Island Press, Washington, D.C.
- March 4-5: Advisor, TAAG-GIS Conference, Rand Corporation, Santa Monica, CA
- January 27: Jury Member, Celebration of Cities, American Institute of Architects, Washington, D.C.

- December 17-19: Advisory Services Panel, Urban Land Institute (ULI), Federal Transit Administration, Washington, DC
- December 8-10: Street Design Guidelines Workshop, City of Charlotte, NC
- December 2-3: Quantifying Smart Growth Workshops, Fehr & Peers Associates, Sacramento and Walnut Creek, CA
- November 21-22: Transportation Summit, Congress for the New Urbanism, Nashville, TN
- November 4: Express Streets Workshop, Houston-Galveston Area Council, Houston, TX
- September 24: Street Connectivity Workshop, Houston-Galveston Area Council, Houston, TX
- July 2: Workshop, Massachusetts Highway Design Manual Task Force, Concord, MA
- June 24: Context-Sensitive Design Training, New Jersey Department of Transportation, Ewing, NJ
- June 17: Context-Sensitive Design Training, New Jersey Department of Transportation,

- Ewing, NJ
- June 9-10: Mayors' Institute on Community Design, Regional Plan Association, Princeton, NJ
- June 4-6: Training Course, Coordinating Transportation and Land Use, National Transit Institute, New Brunswick, NJ
- May 29-30: Training Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Eureka, CA
- May 2: Context-Sensitive Design Training, New Jersey Department of Transportation, Ewing, NJ
- January 30-31: Mayors' Institute on Community Design, Regional Plan Association, Princeton, NJ

- November 13-14: Training Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Mountain View, CA
- July 25-26: National Governors Association Policy Academy, Integrating Transportation and Land Use, Washington, D.C.
- June 10-11: Training Course, Coordinating Land Use and Transportation, City of Charlotte, NC
- May 7: Workshop, Transportation and Land Use Connection, Surface Transportation Policy Project, Sacramento, CA

- June 13-14: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Richmond, VA
- April 25-26: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Des Moines, IA
- March 27: Training Course, Context-Sensitive Design for Transportation Professionals, New Jersey Department of Transportation, New Brunswick, NJ
- February 28-March 1: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Sacramento, CA
- February 27: Training Course, Context-Sensitive Design for Transportation

- Professionals, New Jersey Department of Transportation, New Brunswick, NJ
- February 8: Training Course, Context-Sensitive Design for Transportation Professionals, New Jersey Department of Transportation, New Brunswick, NJ
- January 24-25: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Baton Rouge, LA
- January 18: Training Course, Context-Sensitive Design for Transportation Professionals, New Jersey Department of Transportation, New Brunswick, NJ
- January 11: Workshop, Traffic Calming Pilot Program, City of San Francisco

- December 6-7: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Frankfort, KY
- November 6-7: Training Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, San Diego, CA
- October 18-19: Training Course, Coordinating Transportation and Land Use, National Transit Institute, San Antonio
- October 12-13: Training Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Costa Mesa, CA
- September 20-21: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Albuquerque, NM
- September 11: Charrette, Balanced Growth Strategies, City of Chicago
- July 18-19: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Richmond, VA
- June 14: Transportation Panel, Gateway Regional Center, Portland Development Commission, Portland, OR
- May 23-24: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Anchorage, AK
- April 26-27: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Denver, CO
- April 6-7: Training Course, Traffic Calming: Strategies that Work, UC Berkeley Institute of Transportation Studies, Costa Mesa, CA

- March 30: Workshop, General Plan Update, City of Scottsdale, AZ
- March 10: Workshop, Managing Traffic in New and Existing Neighborhoods, Florida Institute of Government, Ft. Lauderdale, FL
- March 1-2: Training Course, Coordinating Transportation and Land Use, National Transit Institute, Columbus, OH
- February 24-25: Design Charrette, Little Blue Valley, Independence, MO
- January 28: Workshop, 2030 Regional Transportation Plan, City of Reno, NV

#### OTHER NATIONAL EXPOSURE

Work cited many times in such national outlets as *USA Today*, *Time*, *US News and World Report*, and *Washington Post*.

Profiled in Planning magazine, "This Practitioner Teaches, Too," *Planning*, May 2006, pp. 28-31; featured in Planning magazine article in on traffic calming, "Drive Nicely," *Planning*, December 1998, pp. 12-15; and work cited in the same magazine many times.

Featured by many media outlets in connection with a study of urban sprawl and obesity, including National Public Radio, ABC and CBS Radio News, and almost all of the 50 top daily newspapers in the U.S.

Featured in All Things Considered story on "Residential Traffic," February 15, 2000, National Public Radio.

Featured in The Chronicle of Higher Education article on urban sprawl, "Searching for Common Ground in the Debate Over Urban Sprawl," May 21, 1999, pp. A-15-16.