

January 2, 2009

SENT VIA E-MAIL

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**Subject: September 2008 DRAFT Specifications and Drawings for the Proposed Sacramento County Street Improvement Standards**

Dear Mr. Irving:

Thank you for providing the Sacramento Metropolitan Air Quality Management District (SMAQMD) with the opportunity to comment on the proposed Sacramento County Street Improvement Standards. Staff comments are as follows.

To help reduce motor vehicle emissions in Sacramento County, the proposed street improvement standards must (1) provide for equitable access, mobility and safety for non-motorized travel modes, and (2) support smart growth land use. Without smart growth land use, street improvement standards have significantly reduced potential to help reduce motor vehicle emissions. Smart growth land use is associated with a 20 – 40% reduction in vehicle miles traveled (VMT)<sup>1</sup>, in part because it places a mix of uses in proximity, so that travel between uses is possible without motor vehicles, or at least requires shorter motor vehicle trips. Smart growth is associated with a smaller scale of development, which enables it to provide a mix of uses in proximity. Smaller scale development is known as pedestrian-scaled development when its scale is based on pedestrian proportions, rather than motor vehicle proportions. Street improvement standards that support smart growth land use support non-motorized travel modes, and support the scale of smart growth development. Following are recommendations for edits to the proposed street standards, to support these ends.

#### **Smart Growth**

Recommendations herein are appropriate to urban development, rather than suburban development. Smart growth land use prescribes urban development standards, rather than more suburban development standards. Urban development standards' smaller, more pedestrian scale is appropriate to smart growth land use. Narrower roadways and smaller block sizes are more pedestrian-scaled than status quo development, and are more appropriate to urban development.

Much of Sacramento County is rural, but County government is taking an increasing role in governance of urbanized areas. To do this in a way that supports air quality, it must adopt smart growth land use. This includes applying urban development standards to urbanized areas.

#### **Speed and Roadway Width**

Roadways serving local destinations should generally be designed for speeds of no more than 35 miles per hour. The Institute of Transportation Engineers (ITE) has produced a recommended practice

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<sup>1</sup> Ewing, Reid, Keith Bartholomew, Steve Winkelman, Jerry Walters and Don Chen. *Growing Cooler: The Evidence on Urban Development and Climate Change*. Washington, D.C.: Urban Land Institute, 2008. 4 and 33.

document called *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*<sup>2</sup>. This document designates 35 miles per hour as a maximum speed for walkable communities. It provides comprehensive parameters for collectors, arterials and thoroughfares that accommodate maximum speeds of 35 miles per hour. Lane widths of more than 11 feet, and roadways of more than 4 – 6 lanes, facilitate increased vehicular speeds and associated collisions. Correspondingly enlarged curb radii, of over 20 feet, facilitate vehicle turning speeds that pose a significant threat to pedestrians crossing at intersections.

Faster speeds are dangerous, and serve no purpose other than to facilitate motor vehicle travel, which is primarily the role of freeways. Minor reductions in vehicular speeds, to accommodate alternative modes improvements, have not to date been shown to result in significant increases in motor vehicle emissions<sup>3</sup>. Finally, enlarged roadway widths, based primarily on motor vehicle proportions, are incompatible with pedestrian-scaled development, and compromise its effectiveness in reducing vehicle miles traveled.

### **Connectivity**

The proposed street standards should include connectivity standards. Roadway networks without adequate connectivity do not provide adequate access for non-motorized travel. Non-motorized travel requires good connectivity because due to its slower speeds (relative to motorized travel), longer than necessary distances between destinations are especially inefficient.

The referenced ITE document provides principles to determine connectivity. It recommends expanding the definition of collectors to recognize their role in connecting local origins and destinations to distribute trips efficiently, keep short trips off the arterial system and provide a choice of routes for all modes. It recommends building network capacity through a dense, connected multi-modal network rather than through an emphasis on high levels of vehicle capacity on arterials. By emphasizing a diversity of multi-modal routes to destinations, rather than high vehicle capacity on a few larger arterial routes, this approach gives equal access to non-motorized travelers.

Some pre-established, useful connectivity standards include

- the ratio of intersections divided by the sum of intersections and dead-ends;
- the number of surface street intersections within a given area as a measure of intersection density;
- and the ratio of direct travel distances to actual travel distances (The Victoria Transportation Policy Institute, [www.vtppi.org](http://www.vtppi.org)).

In its document *Recommended Guidance for Land Use Emission Reductions*, SMAQMD recommends block size perimeters of no more than 1,350 feet. Block size may be a good connectivity standard, as smaller block sizes allow for more direct routes between destinations.

For connectivity of non-motorized travel, the recommendation that “Where possible a pedestrian connection should be provided from the bulb end of a cul-de-sac to the nearest neighboring roadway” (Section 4-12) is commendable. Cul-de-sacs are by definition not connective roadways, but providing a pedestrian connection, or “cul-de-sac connector,” at the end of a cul-de-sac provides connectivity for non-motorized travel. A stronger standard than “where possible” should be applied to the provision of cul-de-sac connectors. Cul-de-sac connectors should be a default requirement for any cul-de-sac construction; limited criteria should be provided to allow cul-de-sac construction *without* a cul-de-sac connector.

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<sup>2</sup> Institute of Transportation Engineers. *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*. Washington, D.C. 2006.

<sup>3</sup> Planning Dynamics Group. *Central City Two-Way Conversion Study*. Prepared for the City of Sacramento, California January 2006.  
City of San Francisco Planning Department. *San Francisco Bicycle Plan Draft Environmental Impact Report*. San Francisco, California November 2008. 790 – 813.

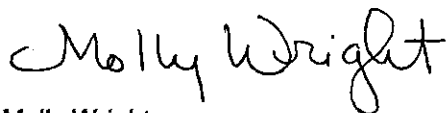
### **Pedestrian Access and Complete Streets**

The proposed street standards should emphasize street features that support, and do not impede, pedestrian or other non-motorized travel. The standard for separated sidewalks, and minimum unobstructed width, is commendable. Striped crosswalks should be a default requirement for intersections, because they are more easily seen by all roadway users, not just pedestrians. Text in section 4-36 A reads "At roadway intersections, striped crosswalks shall only be installed at controlled intersections and with the approval of the Director of Transportation." Instead, crosswalks should be a default requirement, and the Director's approval should be required only when striped crosswalks are *not* installed.

Rights-of-way depicted should include Complete Streets considerations, pursuant to the nation-wide Complete Streets effort. Complete Streets are designed to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street. Rights-of-way depictions for collectors, arterials and thoroughfares should show accommodations for a range of travel modes, including bicycle lanes and separated sidewalks. Some of the rights-of-way depicted include Complete Streets accommodations, which is commendable. For assistance with more comprehensive inclusion of Complete Streets accommodations, please visit [www.completestreets.org](http://www.completestreets.org).

In conclusion, to improve air quality in Sacramento County, the proposed street standards must support pedestrian and other non-motorized travel, and must support smart growth land use. To do this, the street standards must be appropriately scaled for urban development. The recommendations herein support these objectives. If you have any questions on these recommendations, please contact us using the contact information below.

Sincerely,



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