Appendix D

Placer County
Best Available Mitigation Measures
PCAPCD, 1996

BEST AVAILABLE MITIGATION MEASURES

Project Design/Construction

Project/Site Design:

Tree planting in excess of that already required.

Landscape with native drought-resistant species to reduce water consumption and to provide passive solar benefits.

Use of low VOC coatings.

EPA Phase II certified woodburning devices required.

Site design to minimize the need for external trips by including services/facilities for day care, banking/ATM, restaurants, vehicle refueling, and shopping.

Require development practices which maximize energy conservation as a prerequisite to permit approval.

Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors.

Introduce window glazing, wall insulation, and efficient ventilation methods.

Introduce efficient heating and other appliances, such as water heaters, cooking equipment, refrigerators, furnaces and boiler units.

Incorporate appropriate passive solar design and solar heaters.

Use devices that minimize the combustion of fossil fuels.

Capture waste heat and reemploy it in nonresidential buildings.

Install an electrical outlet at the front and back of a home for electrical yard equipment.

Install a natural gas outlet in the backyard for gas burning barbecues.

Install a natural gas hook up in any proposed fireplaces.

Install low nox (NOX) hot water heaters.

To protect sensitive land uses from major sources of air pollution:

Integrate additional mitigation measures into site design such as the creation of buffer zones between a potential sensitive receptor's boundary and potential pollution source.

Require design features, operating procedures, preventive maintenance, operator training, and emergency response planning to prevent the release of toxic pollutants.

Measures to reduce construction-related impacts on air quality:

Use low emission mobile construction equipment (e.g., tractor, scraper, dozer, etc.).

Develop trip reduction plan to achieve 1.5 AVR for construction employees.

Water site and clean equipment morning and evening.

Spread soil binders on site, unpaved roads, and parking areas.

Apply approved chemical soil stabilizers according to manufacturers specifications, to all inactive construction areas (previously graded areas which remain inactive for 96 hours).

Reestablish ground cover on construction site through seeding and watering.

Implement or contribute to an urban tree planting program to offset the loss of existing trees at the construction site.

Employ construction activity management techniques, such as: extending construction period; reducing the number of pieces used simultaneously; increasing the distance between emission sources; reducing or changing the hours of construction; and scheduling activity during off-peak hours.

Pave construction roads and sweep streets if silt is carried over to adjacent public thoroughfares.

Reduce traffic speeds on all unpaved road surfaces to 15 miles per hour or less.

Suspend all grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour.

Wash off trucks leaving the site.

Maintain construction equipment engines by keeping them tuned.

Use low sulfur fuel for stationary construction equipment.

Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.

Use low emission on-site stationary equipment.

Traffic Flow Improvements

Mitigations to reduce construction-related impacts on traffic:

Provide a flagperson to guide traffic properly and ensure safety at construction sites.

Schedule operations affecting traffic for off-peak hours.

Develop a traffic plan to minimize traffic flow interference from construction activities. Plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service.

Minimize obstruction of through-traffic lanes.

Project Design/Operation:

Configure parking to minimize traffic interference.

Schedule goods movement for off-peak traffic hours.

Synchronize traffic signals.

Provide adequate ingress and egress at entrances to public facilities to minimize vehicle idling at curbsides.

Provide dedicated turn lanes as appropriate.

Contribute to an area traffic flow improvement fund to mitigate traffic circulation/congestion impacts and offset the cost of the deficiency planning and program implementation that will have to be done if a project contributes to an intersection/roadway falling below the adopted Level Of Service (LOS) in the Congestion Management Plan.

Lower Vehicle Miles Traveled (VMT)/Increase Average Vehicle Ridership (AVR)

Public/Private Trip Reduction Programs

The development and implementation of Transportation Control Measures (TCMs), such as the operation of a local Transportation Management Association (TMA) and project employer trip reduction plans.

Establish telecommuting programs, alternate work schedules, and satellite work centers.

Work with cities/developers/citizens in the region to implement Transportation Demand Management (TDM) goals.

Parking

Design parking areas with less emphasis on "convenience."

Include a limited number of parking spaces in project design.

Include wide spaces to accommodate vanpool vehicles.

Develop vehicle and bicycle all day parking lots near rail stations, transit stops, and freeway access points.

Construction/enhancement of a Park and Ride lot.

Provide dedicated parking spaces with electrical outlets for electric vehicles.

Operation

Parking pricing strategies, such as charging parking lot fees to low occupancy vehicles.

Preferential parking for those who rideshare.

Ridesharing

Operation

Provide funds for on line computer rideshare matching.

Provide ridesharing information and matching in homeowners association package. Applicable to residential developments.

Telecommunications

Design

Site design to maximize telecommunication including appropriate network infrastructure

Provide satellite offices when appropriate. Applicable to office/industrial and educational institutions.

Operation

Design/establish telecommuting programs for office/industrial complexes.

Offer low cost financing to employees for the purchase of telecommuting equipment, or lend company-owned equipment.

Design "Shop by Telephone" or "Shop-by-Computer" services. Applicable to shopping centers and retail facilities.

Provide home-computer link to mainframe computer (via modem) so that students may complete programming assignments or use computer tutorials at home. Applicable to educational institutions.

Provide individual private telephones for patients which allows for "visits without trips." Applicable to hospitals and medical facilities.

Alternative Transportation

Purchase abandoned railroad rights-of-way for future transit line, bikeway or hiking use(s).

Transit

Design

Contribute to an area transit fund to help build, maintain, and enhance transit services/facilities/amenities.

Site design to maximize access to existing transit lines.

Street design to accommodate bus travel.

Street design to maximize pedestrian access to transit stops, including access from residential cul-de-sacs to collector and arterial streets.

Site design to include bus shelters at transit access points.

Provide additional lighted transit shelters and multimodal transfer stations for transit users.

Construction of transit facility/amenity(bus shelter, bicycle lockers/racks, etc.) for existing public and private transit.

Operation

Provision for transit-use incentives such as subsidized transit passes, accommodation of "unusual" work schedules to allow for transit schedules. Applies to office/industrial, educational institutions, and resorts/hotels.

"Validation" of transit ticket to provide free return trip. Applies to shopping centers, hospitals/medical facilities, and retail facilities.

Sell transit passes. Applies to retail facilities, educational institutions, resorts/hotels, and office/industrial complexes.

Free or reduced transit fares for midday central business district trips.

Free transfers between all shuttles and transit.

School bus service or low-cost student fares.

First year subsidy of added transit services.

Services

Provide shuttle service to connect to existing transit sites.

Operation of a shuttle bus to shopping, health care, public services sites and other nearby trip attractors to reduce automobile use.

Establish delivery services. Applicable to retail facilities (frequent use), shopping centers, and restaurants.

Bicycle/Pedestrian

Require residential developers to provide two bicycles with every home (being considered in Greenfield, CA).

Site design to maximize bicycle access to and within the project.

Provide bicycle parking/lockers.

Employers provide locker room/showers to employees who bicycle.

Include bicycle lane systems in new developments.

Develop or improve bicycle/pedestrian paths between destinations using public or utility rights-of-way.

Develop or improve access by bicycle, wheelchair or on foot to existing major destinations in city or region. For example, schools, employment centers, shopping, recreation, and parks.

Provide secure bicycle storage at public parking facilities.

Design/construction of bicycling/pedestrian paths to both connect with existing system and promote use for internal trips.

Land Use/Transportation/Air Quality Planning

Monitoring

Contribute towards the purchase/operation of air quality/traffic monitoring equipment by local AQMD and planning agencies.

General Plan/Land Use

Subdivisions/site designs that promote mixed use development in order to achieve a balance of commercial, employment, and housing options within the project site or its immediate environment.

/ork towards achieving a job/housing balance.

Encourage growth in and around activity centers, transportation nodes and corridors.

Promote future patterns of urban development that make better use of existing facilities.