MACARTHUR TRANSIT VILLAGE PROJECT

Volume 2. Draft Environmental Impact Report
(Appendices A-E)
SCH No. 2006022075

Prepared for:
City of Oakland

January 2008

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APPENDIX A-1

2006 NOTICE OF PREPARTION AND COMMENT LETTERS

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA, SUITE 3315 • OAKLAND, CALIFORNIA 94612-2032

Community and Economic Development Agency
Planning & Zoning Services Division

(510) 238-3941
FAX (510) 238-6538
TDD (510) 839-6451

NOTICE OF PREPARATION (NOP) OF A DRAFT ENVIRONMENTAL IMPACT REPORT MacARTHUR TRANSIT VILLAGE PROJECT

The Oakland Community and Economic Development Agency, Planning and Zoning Division, is preparing a Draft Environmental Impact Report (EIR) for the project identified below, and is requesting comments on the scope and content of the EIR. The EIR will include a discussion of potential environmental effects for each of the environmental topics included in Appendix G of the California Environmental Quality Act (CEQA) Guidelines, thus the City has not prepared an Initial Study. The City of Oakland is the Lead Agency for the project and is the public agency with the greatest responsibility for either approving the project or carrying it out. This notice is being sent to Responsible Agencies and other interested parties. Responsible Agencies are those public agencies, besides the City of Oakland, that also have a role in approving or carrying out the project. Responsible Agencies will receive a copy and use this EIR when considering approvals related to the project. Responsible Agencies include the San Francisco Bay Area Rapid Transit (BART), as well as other public agencies. Response to this NOP and any additional questions or comments should be directed in writing to: Natalie Fay, Senior Transportation Planner, Community and Economic Development Agency, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612; 510-238-2129 (phone); 510-238-6538 (fax); nfay@oaklandnet.com. Comments on the NOP must be received at the above mailing or email address **on or before March 16, 2006**. Please reference case number ER060004 in all correspondence. In addition, comments may be provided at the EIR Scoping Meeting to be held before the City Planning Commission.

EIR SCOPING MEETING – CITY PLANNING COMMISSION
Wednesday, March 15, 2006
6:30 p.m.
City Hall, 1 Frank H. Ogawa Plaza
Hearing Room 1 or Council Chambers

PROJECT TITLE: MacArthur Transit Village Project

PROJECT LOCATION: The project site is located in North Oakland, within the block that is bound by 40th Street, Telegraph Avenue, West MacArthur Boulevard, and Highway 24, as shown in Figure 1. The project site includes the BART parking lot and four privately owned parcels. These four parcels are anticipated to be acquired as part of the project. It is also noted that several parcels on the block are not included in the project area, as shown in Figure 2, including the parcel on the southwest corner of 40th Street and Telegraph Avenue, parcels that front on Telegraph Avenue (between Apgar Street and West MacArthur Boulevard) and West MacArthur Boulevard. The project would also include access improvements to the MacArthur BART station, which is located west of the project site.

EXISTING CONDITIONS: The project site is approximately 7 acres. The majority of the project site is currently occupied by the MacArthur BART parking lot, a surface parking lot with approximately 600 parking spaces. There are several structures included in the project site that front on

Telegraph Avenue. These structures vary in height, and contain both residential and commercial uses. Parcels that comprise the project site are not included in the Hazardous Waste and Substances Sites (Cortese) List; however, other hazards or hazardous waste, not included in the Cortese List, may be located on the project site.

PROJECT SPONSOR: MacArthur Transit Community Partners, LLC

PROJECT DESCRIPTION: The proposed MacArthur Transit Village project would include six buildings with approximately 800 units of high-density multi-family housing and 30,000 square feet of ground-floor neighborhood serving retail and community space. Approximately 20 percent of the units would be below market rate, with the remainder of the units being for-sale condominiums.

The residential buildings along Telegraph Avenue and 40th Street would be five stories tall, and would include four stories of housing above ground-floor retail. Set back against the freeway in the rear of the BART parking lot are two residential towers, one 20-story and one 22-story in height. Figure 3 shows a conceptual site plan and drawing of the proposed project.

The project includes approximately 1,030 residential, retail and community use parking spaces and 300 BART parking spaces. BART currently has approximately 600 spaces dedicated for exclusive BART parking purposes. The project would reduce exclusive BART parking by approximately 50 percent. Full replacement of BART commuter parking will also be analyzed as part of the EIR.

As part of the proposed project, a Residential Parking Permit Program, covering a ¼ mile radius around the project site, would be implemented to minimize potential adverse BART parking effects on the surrounding neighborhood.

The proposed project also includes several public infrastructure upgrades, including a new public street through the site off of Telegraph Avenue, the renovation of the existing BART entry plaza, intermodal improvements, a new intermodal area, and a new public plaza adjacent to the retail space.

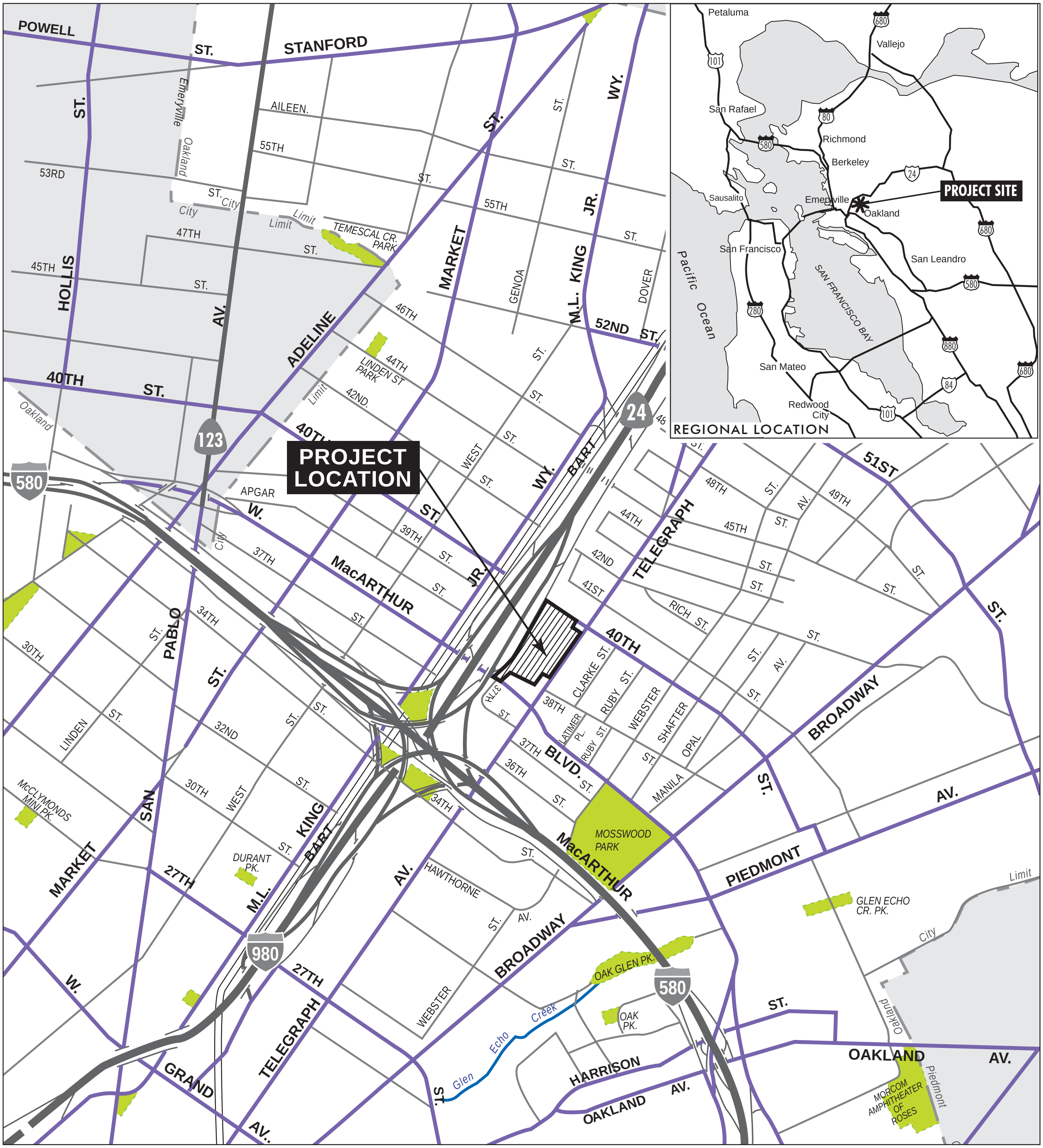
Actions/approvals by the City that may be necessary for this project include without limitation: rezoning; design review, conditional use permit; development agreement; tree removal; grading; and a disposition and development agreement

The Draft EIR will also examine a reasonable range of alternatives to the project, including the CEQA-mandated No Project Alternative and other potential alternatives that may be capable of reducing or avoiding potential environmental effects.

Information for the proposed project can be found at the following website:
http://www.oaklandnet.com/government/ceda/revised/planningzoning/MajorProjectsSection/macarthur.html

February 15, 2006 Gary Patton
File Number ER060004 Environmental Review Officer

Attachments
Figure 1: Project Location and Regional Vicinity Map
Figure 2: Project Site Map
Figure 3: Conceptual Site Plan and Drawing



LSA

FIGURE 1

LEGEND

PROJECT AREA

0 1000 2000

FEET

MacArthur Transit Village Project EIR

Project Location and Regional Vicinity Map

SOURCE: CALIFORNIA STATE AUTOMOBILE ASSOCIATION, 2000.

I:\ARF530 macarthur bart\figures\Fig_1.ai (01/18/06)

LSA

FIGURE 2

LEGEND

PROJECT AREA

PARCEL LINES

N

MacArthur Transit Village Project EIR

Project Site Map

SOURCE: CITY OF OAKLAND, 2006.

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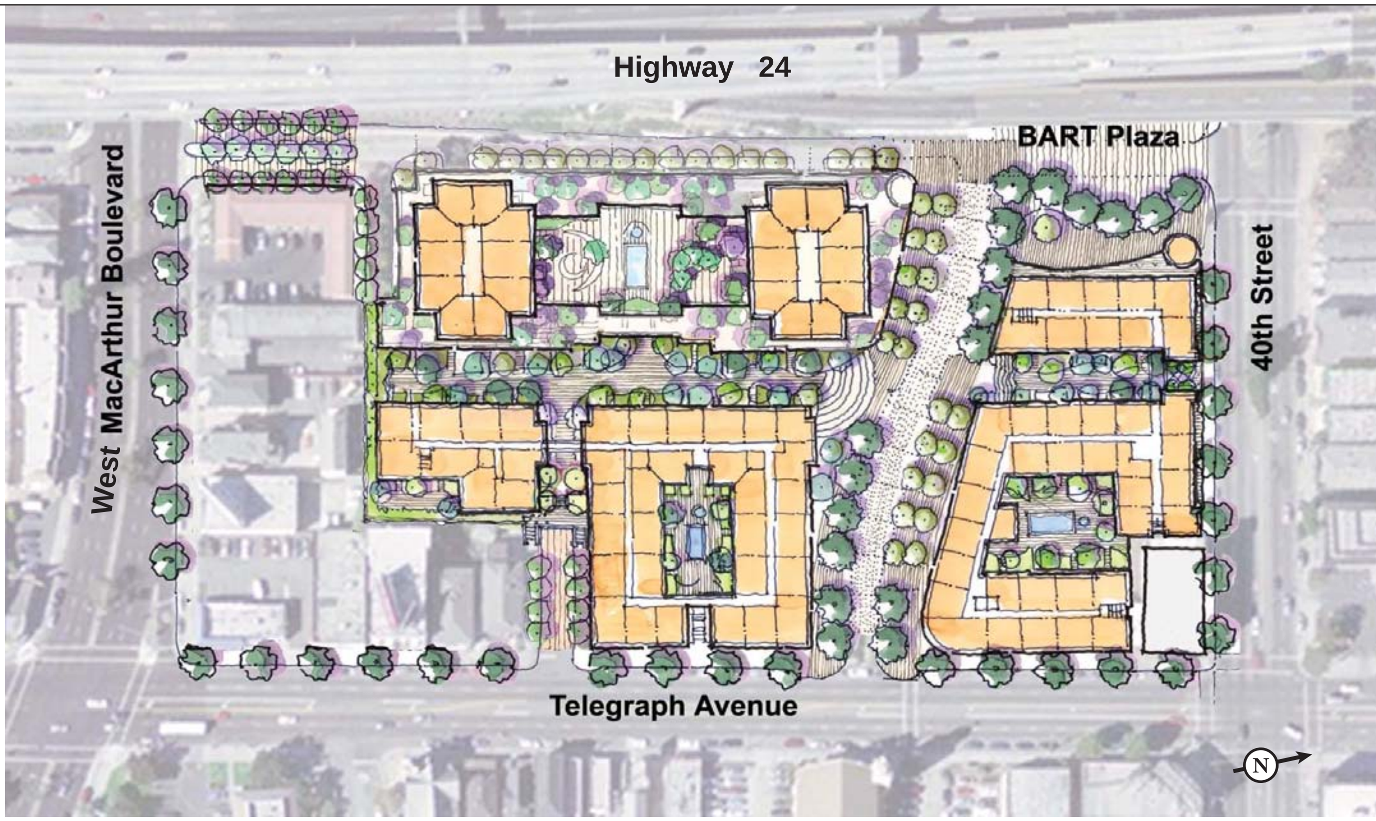

LSA

FIGURE 3

MacArthur Transit Village Project EIR
Conceptual Site Plan
and Drawing

SOURCE: CITY OF OAKLAND, 2006.

I:\ARF530 macarthur bart\NOP\figures\Fig_3.ai (02/02/06)

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA, SUITE 3315 • OAKLAND, CALIFORNIA 94612-2032

Community and Economic Development Agency
Planning & Zoning Services Division

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PUBLIC AGENCY EIR SCOPING MEETING
Tuesday, February 28, 2006
3:30 p.m.
Fox Conference Room
5th Floor, 250 Frank Ogawa Plaza
and
EIR SCOPING MEETING – CITY PLANNING COMMISSION
Wednesday, March 15, 2006
6:30 p.m.
City Hall, 1 Frank H. Ogawa Plaza
Hearing Room 1 or Council Chambers

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February 15, 2006
File Number ER060004

Gary Patton
Environmental Review Officer

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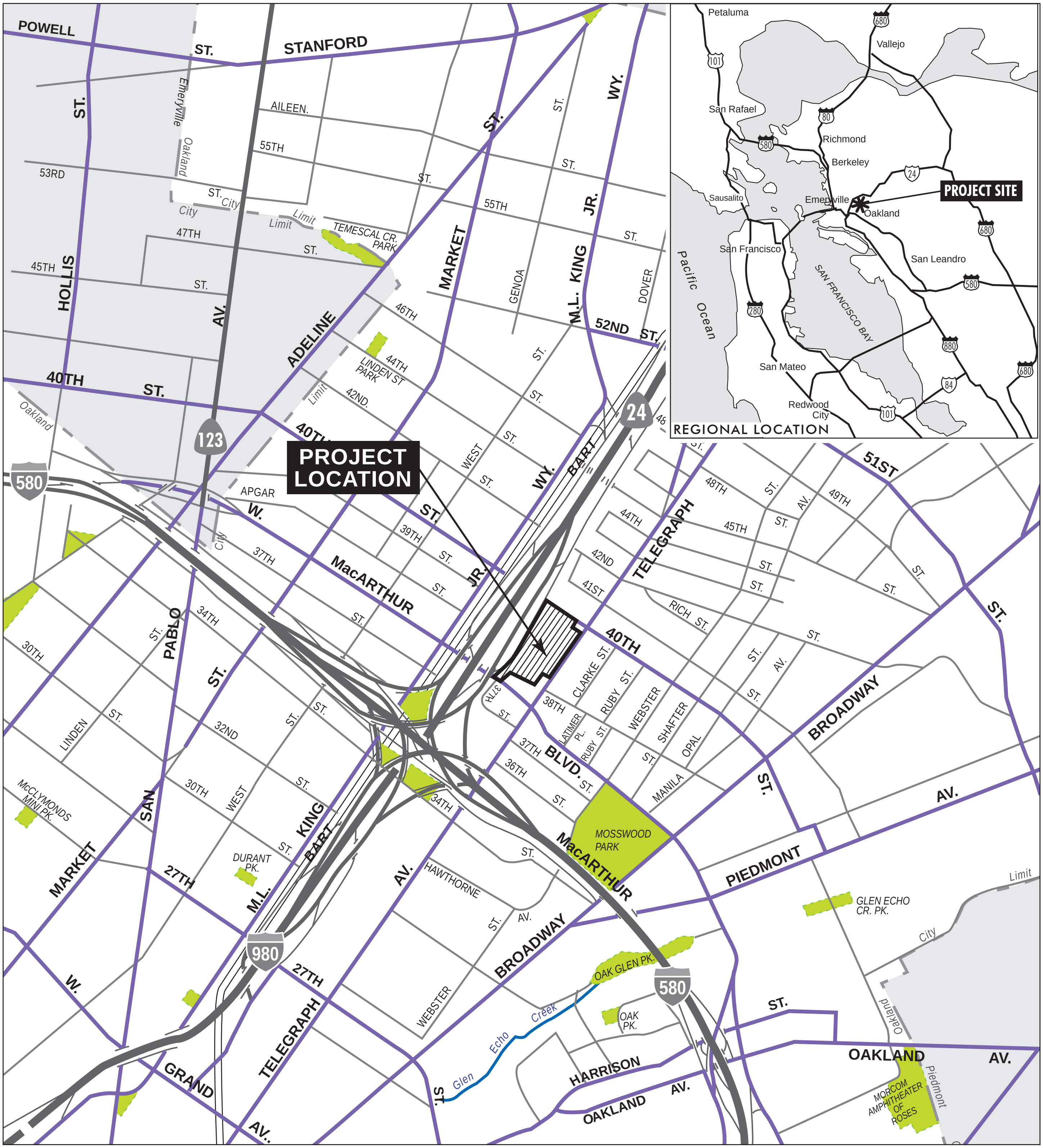
Figure 2: Project Site Map
Figure 3: Conceptual Site Plan and Drawing



LSA

FIGURE 1

LEGEND

PROJECT AREA

0 1000 2000
FEET

MacArthur Transit Village Project EIR

Project Location and
Regional Vicinity Map

SOURCE: CALIFORNIA STATE AUTOMOBILE ASSOCIATION, 2000.

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FIGURE 2

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LEGEND

PROJECT AREA

PARCEL LINES

MacArthur Transit Village Project EIR

Project Site Map

SOURCE: CITY OF OAKLAND, 2006.

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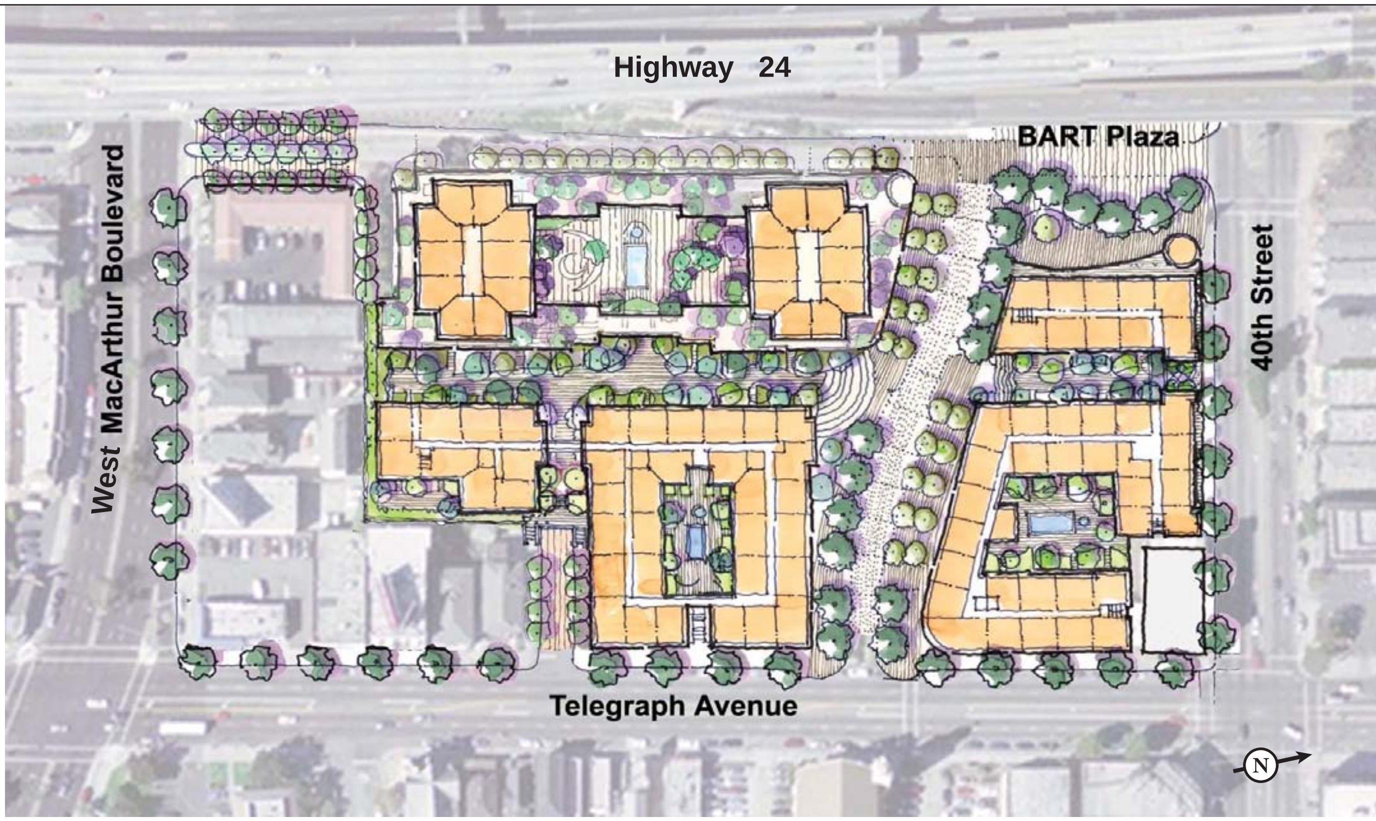

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FIGURE 3

MacArthur Transit Village Project EIR
Conceptual Site Plan
and Drawing

SOURCE: CITY OF OAKLAND, 2006.

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STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

Notice of Preparation

February 15, 2006

To: Reviewing Agencies

Re: MacArthur Transit Village Project
SCH# 2006022075

Attached for your review and comment is the Notice of Preparation (NOP) for the MacArthur Transit Village Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, <u>within 30 days of receipt of the NOP from the Lead Agency</u>. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Natalie Fay, Senior Transportation Planner
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

for

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# **2006022075**
Project Title MacArthur Transit Village Project
Lead Agency Oakland, City of

Type **NOP** Notice of Preparation

Description The proposed MacArthur Transit Village project would include the construction of six buildings with approximately 800 units of high-density multi-family housing and 30,000 square feet of ground-floor neighborhood serving retail and community space. Approximately 20 percent of the units would be below market rate, with the remainder of the untis being for-sale condominiums. The project includes approximately 1,030 residential, retail, and community use parking spaces and 300 BART parking spaces. BART currently has approximately 600 spaces dedicated for the exclusive BART parking purposes. The project would reduce exclusive BART parking by approximately 50 percent. The project would also include access improvements to the MacArthur BART station, which is located west of the project site.

Lead Agency Contact

Name Natalie Fay, Senior Transportation Planner
Agency City of Oakland
Phone (510) 238-2129 ***Fax***
email
Address 250 Frank H. Ogawa Plaza, Suite 3315
City Oakland ***State*** CA ***Zip*** 94612

Project Location

County Alameda
City Oakland
Region
Cross Streets 40th Street, Telegraph Avenue
Parcel No. 012-0967-049-01; 12-0968-003-01; 012-0968-055-01; 012-0969-002; 012-0969-003-01;
Township 012-0969-004; ***Range*** ***Section*** ***Base***

Proximity to:

Highways 24, 13, 123, I-580, I-980, I-880
Airports
Railways BART, UPRR
Waterways San Francisco Bay
Schools 20+
Land Use Present Land Use: Surface parking, medical center, privately owned buidlings

Zoning: High Density Residential (R-70)/ Mediated Residential Design Review Combining District (S-18); Commercial Shopping District Zone (C-28)/ Mediated Residential Design Review Combining District (S-18)

General Plan Designation: Neigborhood Center

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; San Francisco Bay Conservation and Development Commission; Department of Water Resources; Department of Fish and Game, Region 3; Department of Health Services; Office of Emergency

Patrol; Department of Housing and Community Development; Caltrans, District 4; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 2

Date Received 02/15/2006 ***Start of Review*** 02/15/2006 ***End of Review*** 03/16/2006 bution List

County: Alameda

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Game

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Game Region 1
Koch

Game Region 2
Curtis

- [ ] **Fish & Game Region 3**
  Robert Floerke
- [ ] **Fish & Game Region 4**
  Julie Vance
- [ ] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Tammy Allen
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Robert Sleppy
  Environmental Services Section
- [x] **Dept. of Health Services**
  Veronica Rameriz
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Debby Eddy
- [x] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [x] **Native American Heritage Comm.**
  Debbie Treadway

- [x] **Public Utilities Commission**
  Ken Lewis
- [ ] **State Lands Commission**
  Jean Sarino
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [x] **California Highway Patrol**
  Mark Mulgrew
  Office of Special Projects
- [x] **Housing & Community Development**
  Lisa Nichols
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Jeff Pulverman
- [x] **Caltrans, District 4**
  Tim Sable
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Marc Birnbaum
- [ ] **Caltrans, District 7**
  Cheryl J. Powell
- [ ] **Caltrans, District 8**
  Mark Roberts
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Mario Orso
- [ ] **Caltrans, District 12**
  Bob Joseph

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [ ] Transportation Projects
  Kurt Karperos
- [ ] Industrial Projects
  Mike Tollstrup
- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Jim Hockenberry
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [x] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Jonathan Bishop
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** ____________

Last Updated on 02/9/06

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

D[illegible]ARTMENT OF TRANSPORTATION
1[illegible] GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5505
FAX (510) 286-5559
TTY (800) 735-2929

Flex your power!
Be energy efficient!

March 13, 2006

ALA024030
ALA-24-R1.85
SCH2006022075

Ms. Natalie Fay
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Dear Ms. Fay:

MacArthur Transit Village Project – Notice of Preparation

Thank you for including the California Department of Transportation (Department) in the early stages of the environmental review process for the MacArthur Transit Village project. The following comments are based on the Notice of Preparation for the Draft Environmental Impact Report (DEIR). As lead agency, the City of Oakland is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. The project's traffic mitigation fees should be specifically identified in the DEIR. Any required roadway improvements should be completed prior to issuance of project occupancy permits. While an encroachment permit is only required when the project involves work in the State Right of Way (ROW), the Department will not issue an encroachment permit until our concerns are adequately addressed. Therefore we strongly recommend that the lead agency ensure resolution of the Department's CEQA concerns prior to submittal of the encroachment permit application. Further comments will be provided during the encroachment permit process; see the end of this letter for more information regarding the encroachment permit process.

The Department acknowledges that the MacArthur Transit Village proposal is consistent with state planning priorities that:

- Promote infill development and the appropriate reuse and redevelopment of previously developed land.
- Encourage efficient development patterns by ensuring that infrastructure supports compact development adjacent to existing developed areas that are appropriately planned for growth and served by adequate transportation and other essential utilities and services.

The Department is primarily concerned with impacts to the State Highway system. Specifically, a detailed Traffic Impact Analysis (TIA) should identify impacts to State Route 24 and Interstates 580 and 980 with and without the proposed MacArthur Transit Village Project traffic. The TIA should include, but is not limited to the following:

1. Information on the project's traffic impacts in terms of trip generation, distribution, and assignment. The assumptions and methodologies used in compiling this information should be addressed.

2. Average Daily Traffic (ADT) and AM and PM peak hour volumes on all significantly affected streets and highways, including crossroads and controlling intersections.

3. Schematic illustration of the traffic conditions for: 1) existing, 2) existing plus project, and 3) cumulative for the intersections in the project area.

4. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect the State Highway facilities being evaluated.

5. Mitigation measures should consider highway and non-highway improvements and services. Special attention should be given to the development of alternate solutions to circulation problems that do not rely on increased highway construction.

6. All mitigation measures proposed should be fully discussed, including financing, scheduling, implementation responsibilities, and lead agency monitoring.

We encourage the City of Oakland to coordinate preparation of the study with our office, and we would appreciate the opportunity to review the scope of work. Please see the Caltrans' *"Guide for the Preparation of Traffic Impact Studies"* at the following website for more information: http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf

We look forward to reviewing the TIA, including Technical Appendices, and Draft Environmental Impact Report for this project. Please send two copies to:

Lisa Carboni
Office of Transit and Community Planning
Department of Transportation, District 4
P.O. Box 23660
Oakland, CA 94623-0660

Encroachment Permit

Work that encroaches onto the State ROW requires an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the address below. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process. See the website link below for more information.
http://www.dot.ca.gov/hq/traffops/developserv/permits/

Sean Nozzari, District Office Chief
Office of Permits
California DOT, District 4
P.O. Box 23660
Oakland, CA 94623-0660

Should you have any questions regarding this letter, please call Lisa Carboni of my staff at (510) 622-5491.

Sincerely,

Timothy C. Sable

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: Scott Morgan (State Clearinghouse)

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

March 3, 2006

Natalie Fay
City of Oakland, CEDA
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Subject: MacArthur Transit Village Project

Dear Ms. Fay:

Bay Area Air Quality Management District (District) staff have reviewed your agency's Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the MacArthur Transit Village Project. This project proposes to construct approximately 800 residential units and approximately 30,000 square feet of neighborhood-serving retail and community space. The project also proposes to provide approximately 1,030 parking spaces for residents and an additional 300 spaces for BART patrons.

The Bay Area is currently a non-attainment area for national and State ambient air quality standards for ground level ozone and State standards for particulate matter. The air quality standards for these "criteria pollutants" are set at levels to protect public health and welfare.

The District has the following specific comments on the environmental analysis that should be included in the DEIR.

1. The *BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans (1999)* provide guidance on how to evaluate a project's construction, operational and cumulative impacts. You may obtain a copy by calling our Public Information Division at (415) 749-4900 or downloading the online version from the District's web site at: http://www.baaqmd.gov/pln/ceqa/index.htm.

2. The DEIR should provide background information regarding the District's attainment status for all criteria pollutants and the implications for the region if these standards are not attained by statutory deadlines. In addition, a discussion of the U.S. EPA's current proposal to amend national health based particulate matter standards should be discussed. A discussion of the health effects of air pollution, especially on sensitive receptors, should be provided.

3. The DEIR should provide a detailed analysis of the project's potential effects on local and regional air quality from construction, operations and cumulative impacts. Estimate daily and annual volatile organic compounds (VOCs), nitrogen oxides (NOx), and fine particulate matter (PM_{10}) emissions from stationary, area and mobile sources resulting from long-term operation of this

project and compare to the significance criteria in the *BAAQMD CEQA Guidelines*. Evaluate the potential adverse health impacts of toxic air contaminants (TACs) on sensitive receptors within and adjacent to this project, particularly from Highway 24 traffic adjacent to the project site. Additionally, the California Air Resource Board's (ARB) *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides helpful guidance on air quality and siting issues for some land uses. The handbook can be downloaded from ARB's website: http://www.arb.ca.gov/ch/landuse.htm. We recommend the City refer to ARB's handbook when considering the siting of new residential buildings and other sensitive receptors in order to avoid conflicts with existing sources of TACs.

4. Construction generates fugitive dust emissions and emissions of criteria pollutants and TACs from construction equipment. The project developers should be required to comply with the dust mitigation measures in the District's CEQA Guidelines. Additionally, the California Air Resources Board (ARB) has identified diesel engine particulate matter as a toxic air contaminant and known carcinogen. For informational purposes, we recommend that the DEIR also include a quantitative analysis of the criteria pollutant emissions that would be generated from construction equipment exhaust during project construction. Given the presence of existing nearby sensitive receptors, we also encourage the City to include a mitigation measure requiring the implementation of all feasible measures that reduce construction equipment exhaust emissions. Such measures could include but are not limited to: maintaining properly tuned engines; minimizing the idling time of diesel powered construction equipment to three minutes; using alternative powered construction equipment (i.e., CNG, biodiesel, water emulsion fuel, electric); using add-on control devices such as diesel oxidation catalysts or particulate filters; using diesel construction equipment that meets the ARB's 2000 or newer certification standard for off-road heavy-duty diesel engines; phasing the construction of projects; and limiting the hours of operation of heavy duty equipment.

5. If the project is found to have potentially significant impacts on air quality, we recommend that the DEIR evaluate and recommend all feasible mitigation measures that can reduce project emissions. These could include TDM strategies, such as providing: Class II bicycle lanes within a one-mile area of the project location; expanded community shuttle service, transit information and shelters; and subsidized transit passes for project residents. We also recommend that the City require that the project sponsor to unbundle the parking for residential uses (i.e. charge for off-street parking separately from rents) and that the parking requirements be lowered if it is determined that demand for on-site parking would decrease as a result. The project could also reduce area source emissions by utilizing only electric landscaping equipment to maintain common areas and prohibiting the use of leaf blowers. The DEIR should provide an analysis of all mitigation measures considered, and justification for those measures not considered feasible.

6. The DEIR should evaluate the project's potential to increase the demand for energy in the City. Increasing the demand for electricity, natural gas, and gasoline may result in an increase of criteria air pollutant emissions from combustion, as well as an increase in greenhouse gas emissions, which can impact regional air quality. We recommend that the DEIR discuss energy demand of the project at build-out, including any cumulative impacts,

such as the need to build "peaker power plants" to provide power during peak demand. When identifying strategies to minimize the project's impact on energy and air quality, the District encourages the City to include feasible mitigation measures that would require the development to incorporate a minimum level of green building measures. This minimum level could be based on the Leadership in Energy and Environmental Design (LEED) standards or by setting a target percentage reduction below California Building Code's Title 24 energy standards. Green building measures could include but are not limited to using: super-efficient heating, ventilation, and air conditioning (HVAC) systems; light-colored and reflective roofing materials, pavement treatments and other energy efficient building materials; shade trees adjacent to buildings and in parking areas; photovoltaic panels on buildings; and natural light and energy-efficient lighting.

If you have any questions regarding these comments, please contact Douglas Kolozsvari, Environmental Planner, at (415) 749-4602.

Sincerely,

Jean Roggenkamp

Jean Roggenkamp
Deputy Air Pollution Control Officer

JR:DK

cc: BAAQMD Director Roberta Cooper
BAAQMD Director Scott Haggerty
BAAQMD Director Nate Miley
BAAQMD Director Shelia Young

Department of Toxic Substances Control

Alan C. Lloyd, PhD
Agency Secretary
Cal/EPA

700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

Arnold Schwarzenegger
Governor

March 1, 2006

Ms. Natalie Fay
City of Oakland
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, California 94612

Dear Ms. Fay:

Thank you for the opportunity to comment on the Notice of Preparation of the Draft Environmental Impact Report for MacArthur Transit Village Project (ER060004). As you may be aware, pursuant to the California Health and Safety Code, Division 20, Chapter 6.8, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released. As a potential Resource Agency, DTSC is submitting comments to help ensure environmental documentation prepared for this project under California Environmental Quality Act (CEQA) adequately addresses remediation activities pertaining to releases of hazardous substances.

According to the Notice of Preparation (NOP), the project consists of the development of six buildings with approximately 800 units of high-density multi-family housing, 30,000 square feet of ground-floor neighborhood-serving retail and community space, and a multi-use parking garage. The project also proposes to build a new public street through the site off Telegraph Avenue, improve intermodal areas, and add a public plaza adjacent to retail space. The project includes renovating the BART entry plaza and fully replacing BART parking.

The NOP describes current land use as mixed commercial/industrial and residential, including the MacArthur BART parking lot (600 spaces) and several commercial and residential structures that front on Telegraph Avenue. The notice states that no Cortese List sites are included in the current project area; however, it acknowledges that other hazards or hazardous waste may be present.

The NOP does not mention the need to thoroughly investigate all historical uses of the property, which is located in a heavily developed area. In addition, several nearby commercial properties are listed on the State Water Resources Control Board list of leaking underground fuel tank sites (http://geotracker.swrcb.ca.gov/). Contamination from these sites may affect soil and ground water in the project area. Without this information, DTSC will be unable to determine whether hazardous substances may have been released at the Site. We strongly suggest that the City of Oakland thoroughly assess all historical activities in and around the property. Based on that information, samples should be collected to determine whether additional issues need to be addressed in the CEQA compliance document. If hazardous substances have been released to the soil, ground water, or surface water at the Site, this contamination will need to be addressed as part of the project.

For example, if the proposed construction and landscaping include the need for soil excavation and remediation, the CEQA document should include: (1) an assessment of air impacts and health impacts associated with soil excavation activities; (2) identification of applicable local standards, which may be exceeded by the excavation activities, including dust levels and noise; (3) transportation impacts from the removal or remedial activities; and (4) risk of upset if an accident occurs at the Site.

DTSC and the Regional Water Quality Control Boards (Regional Boards) signed a Memorandum of Agreement (MOA), March 1, 2005 aimed at preventing duplication of efforts among the agencies in the regulatory oversight of investigation and cleanup activities at brownfield sites. Under the MOA, anyone requesting oversight from DTSC or the Regional Board must submit an application to initiate the process to assign the appropriate oversight agency. The completed application and site information may be submitted to either DTSC or Regional Board office in your geographic area.

Please contact Amy E. DeMasi at (510) 540-3812 if you have any questions or would like to schedule a meeting. Thank you in advance for your cooperation in this matter.

Sincerely,

Denise M. Tsuji, Unit Chief
Northern California - Coastal Cleanup Operations Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
PO Box 3044
Sacramento, California 95812-3044

Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
PO Box 806
Sacramento, California 95812-0806

EMERYVILLE TRANSPORTATION MANAGEMENT ASSOCIATION

1300 67th Street
Emeryville CA 94608
Telephone 510-451-3862
Fax 510-465-6637

March 3, 2006

Natalie Fay
Senior Transportation Planner
City of Oakland
250 Frank Ogawa Plaza, #3315
Oakland, CA 94612

Re: Preliminary Site Plan for MacArthur Transit Village
ER0600004

Dear Natalie,

Thank you for the opportunity to meet regarding our concerns with the initial site plan proposed for the MacArthur Transit Village project. As I shared in the meeting, I am distressed that a "TOD" site plan has eliminated critical access for thousands of existing BART, bus and taxi patrons without any thought as to how it might be replaced.

I hope you will consider the negative impacts of this site design for the 20,000 MacArthur BART patrons; the nearly 4,000 Emery Go Round users; plus thousands more who use the hospital and corporate shuttles, taxis and AC Transit lines at this station.

Our research shows that some 65% of our customers walk to a BART station; 61% live within a mile; another 24% live within 1-to-3 miles. Approximately 20% of our customers get to BART by bus; another 10% are dropped off.

This project represents many opportunities – key is the chance to improve the current conflicted, uncoordinated network of pedestrian/auto/bicycle/bus/and drop-off access to BART in ways that improve access and safety for all users as well as occupants of the new Transit Village.

The project benefits list includes three items which in particular, are problematic with the initial design:

1) increased safety resulting from positive street activity…
2) improved access to BART…
3) de-emphasize reliance on automobiles…

I believe our conversation with the developer about their preconceived notion that "it is not good for a shuttle to run right by a resident's front door" begins to address the problem. It seems worth further exploration as to what is behind this, so we can all begin to work on perceptions, realities, and make adjustments where we need to if we are all to co-exist. I think we also touched on several creative possibilities – such as access on a different level (perhaps access from the development could be from a second story rather than ground level that is above the access road); looking at reconfiguring 40th Street for the BART entry; the use of MacArthur and/or MLK for access by various modes; and thinking about areas within the "TOD" for possible access.

This project either redefines and divides it from adjacent neighborhoods or it will redefine and blend with neighboring communities in a positive way.

It is important to remember that the inhabitants of the Transit Village will be using BART and also the extensive bus systems at their doorstep – and in this way, they share the same needs as the existing patrons we are so concerned about. Many will work in Emeryville, at one of the hospitals served by shuttles; or want to walk or bicycle to their jobs. Likewise, retailers will need the foot traffic generated by BART and bus patrons en route to their jobs and home again; they will also need the patronage of those who are dropped off or currently walk to this station. Therefore, it seems prudent to make sure that access to and intermodal connections are safe, inviting, and convenient for all coming to BART and/or the Transit Village.

I look forward to working with you, the EIR and development team to resolve these important issues.

Sincerely yours,

Wendy Silvani

Wendy Silvani
Executive Director

Kleinbaum, Kathy

Fr :	John Gatewood [johnnyg@california.com]
S	Monday, March 06, 2006 10:01 PM
To:	Kleinbaum, Kathy
Cc:	deborah@aegisrealty.com
Subject:	Re: MacArthur Transit Village EIR Scoping

Good morning Kathy,

Here are a few things I believe fall under CEQA that should be addressed in the EIR:

1) Pedestrian Safety-
Please note that there is an existing exit from MacArthur BART to MacArthur Blvd. This is already a long, narrow and isolated walk for pedestrians. If the two towers and the parking structure are built as shown in the plans this walk will become even more isolated, almost a narrow dark canyon.
Making this exit even less safe.

2) Shadow Study of these towers-
What kind of shadows will these towers cast onto the rest of the project?
Also the study should be more than just the shortest day of the year but throughout the year; barring that then at least the equinoxes and first day of winter and first day of summer.

3) Reflection Study of these towers-
What kind of sun reflections will be bouncing off these towers and where will they land?
In the morning will they be beaming down onto the BART Plaza?
More importantly from a traffic safety standpoint, in the afternoon will these towers cast sun reflections onto cars on the Freeway and in the Maze, possibly temporarily blinding vers?
Again, like the Shadow Study, this study should take into account the seasonal changes of the sun's position.

4) Wind Study of these towers-
Because of their height will these towers divert upper level winds down to plaza level making these plazas windswept and unusable?
Will they divert upper level winds onto the BART platform making them unsafe for those waiting for trains?

5) Aesthetic Impact-
Impact this project and especially these towers will have on the existing architectural fabric of this neighborhood. I am not convinced that towers of this height can ever be respectful of the context of our neighborhood.

6) Any alternative to this project should explore redistributing the density on the site. Presently it appears that there are a series of low rise (5-story buildings) then along the freeway are two towers, 20 and 22 stories respectively. Why can't these towers be brought down in height to say 10-12 stories? Then the inner buildings on the site (those across the way from the
towers) could be 8-12 stories high. The buildings along the perimeter of the site would remain 5 stories. In this way the height of the project would gradually increase as you go further into the site. This approach to the project would be an improvement because:
A) The taller buildings would be much less jarring because there would now be a variety of heights on the site, not just 5 stories and high rises.
B) More visual interest because of the variety of heights.
C) The opportunity to create large balconies for many more units. The taller buildings could have setbacks at 5, 8, 10 stories in order to do this.
-' The project would more resemble a little city in that there would be low density on the rimeter rising to higher density at the core.

Any economic feasibility study needs to look at the viability of retail businesses along the reconstituted 39th Street. If you were to draw a circle with a radius of 3/4 mile centered on the BART plaza, this would roughly encompass the majority of commuters who walk to this BART station. So the question becomes how many of these pedestrians are going to walk down this reconstituted 39th St? Half of this circle is below the freeway. Another quarter is above 40th. But the final quarter, those whose walk would take them down this n 39th St., contains large amounts of non-residential uses (Mosswood Park, Kaiser, the 5‿ freeway, the medical facilities of Pill Hill.) So I suspect this quarter supplies far less than a quarter of the commuters who walk to BART. I think this is an important point in that lack of commuters walking through the new Fruitvale Transit Village has been given as the main reason the majority of businesses in that space are failing. This new 39th Street was described as being lined with retail spaces but if there is not enough foot traffic it will suffer the same fate as the businesses in the Fruitvale Transit Village. An argument can be made that people will make a detour in their commute to take advantage of these new retail opportunities but any argument like this is very subjective. What kind of retail would be compelling enough for people to change their commute?

Sincerely,

John Gatewood
360 50th St.
Oakland, CA 94609

On 3/1/06 9:31 AM, "Kleinbaum, Kathy" <KKleinbaum@oaklandnet.com> wrote:

> John,
>
> Thank you for submitting comments. Economic feasibility is not a CEQA
> issue, and as a result, will not be covered in the Environmental Impact Report.
> However, it is a concern of the Redevelopment Agency and BART's in
> terms of approving the development deal for this project. The
> development team will be required to commission a third-party market
> study evaluating the feasibility of the project prior to the Agency or
> BART entering into any formal development agreement with them.

> So I hope this addresses your concern, market feasibility analysis
> that addresses the points in your email will be completed for this
> project but will not appear in the Environmental Impact Report itself.
>
> Kathy Kleinbaum
> City of Oakland
> CEDA, Redevelopment Division
> 250 Frank Ogawa Plaza, Suite 5313
> Oakland, CA 94612
> Ph: (510) 238-7185
> Fax: (510) 238-3691
> ** Please note change in phone number effective 12/19/05**
> -----Original Message-----
> From: John Gatewood [mailto:johnnyg@california.com]
> Sent: Thursday, February 23, 2006 10:42 PM
> To: kkleinbaum@oaklandnet.com
> Cc: deborah@aegisrealty.com
> Subject: MacArthur Transit Village EIR Scoping
>
> Dear Ms. Kleinbaum,
>
> I attended the MacArthur BART Citizen Planning Committee meeting
> Wednesday night. I believe the EIR for this project must contain an
> economic analysis of the viability of the proposed two towers of this project.
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> My concern is that these two towers are not economically viable. For
> the City and the residents to make an informed decision about this
project, there needs to to be in a public document what financial
analyses have been undertaken that show these towers will be
> successful and not a blight in the neighborhood. I think this would
> fall under the Public Policy and Cumulative Impact components of the EIR.
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> Any analysis should include, but not be limited to:

> 1) Who is the target market for these condos?
> 2) What kind of market research has been done to show that these
> condos are desirable?
> - they are hi-rise, hi-density condos in a residential neighborhood.
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> 3) How are these condos going to be priced?
> 4) When these condos go online how many other condos will be going
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> 1) Units selling so slowly that the development team decides to market
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> original owners, rather than selling their units when they leave, rent
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> My experience having grown up in New York is that when projects as
> dense as this become rentals they tend to decline quickly and age badly.
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> My hope is that whatever is built on this site is a success. The only
> thing worse than the existing hole in the ground would be a failed
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> John Gatewood
> 360 50th St.
> Oakland, CA 94609
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Kleinbaum, Kathy

From: John Gatewood [johnnyg@california.com]
S : Tuesday, March 07, 2006 11:38 PM
To: Kleinbaum, Kathy
Subject: Re: MacArthur Transit Village EIR Scoping

Good morning Kathy,

One more EIR comment. These two towers and the parking structure will act like a sound wall. How will this affect the neighborhood? Will freeway and BART noise bounce of these towers and into the neighborhood below the freeway, making the freeway and BART noise levels in this part of the neighborhood even louder? It is something that should be studied in the EIR.

Thanks,

John

On 3/7/06 11:41 AM, "Kleinbaum, Kathy" <KKleinbaum@oaklandnet.com> wrote:

> John,
>
> Thanks for your comments on the EIR topics. These have been forwarded
> to the EIR consultant.
>
> Kathy Kleinbaum
> City of Oakland
EDA, Redevelopment Division
> 250 Frank Ogawa Plaza, Suite 5313
> Oakland, CA 94612
> Ph: (510) 238-7185
> Fax: (510) 238-3691
> ** Please note change in phone number effective 12/19/05**
> -----Original Message-----
> From: John Gatewood [mailto:johnnyg@california.com]
> Sent: Monday, March 06, 2006 10:01 PM
> To: Kleinbaum, Kathy
> Cc: deborah@aegisrealty.com
> Subject: Re: MacArthur Transit Village EIR Scoping
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> addressed in the EIR:
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> MacArthur Blvd. This is already a long, narrow and isolated walk for
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John Gatewood
360 50th St.
>> Oakland, CA 94609
>>
>

Klein, Heather

From: Fay, Natalie
Sent: Friday, March 03, 2006 1:24 PM
To: Klein, Heather
Subject: FW: input on scoping

-----Original Message-----
From: swbelcher@msn.com [mailto:swbelcher@msn.com]
Sent: Thursday, February 23, 2006 3:50 PM
To: nfay@oaklandnet.com
Subject: input on scoping

I don't know if you are aware of this, but the transit station proposal is in the flight path of the helicopters servicing children's hospital. There is apparently a route bearing approximately northwest, southeast, from and to Contra Costa County which I can attest is used sometimes several times a day. The route flies over, I believe, the transit village site. You probably should check their use permit for conditions. I think that the contractors are supposed to fly above 500 feet but my observation is that standard is routinely violated, particularly at night. Steve Belcher, 5333 Locksley Ave.

Fay, Natalie

Fr Kleinbaum, Kathy
Se... Thursday, March 02, 2006 1:35 PM
To: Fay, Natalie
Subject: FW: MacArthur Transit Village EIR Scoping

For you files, my correspondence with John Gatewood on his NOP comment.

Kathy Kleinbaum
City of Oakland
CEDA, Redevelopment Division
250 Frank Ogawa Plaza, Suite 5313
Oakland, CA 94612
Ph: (510) 238-7185
Fax: (510) 238-3691
** Please note change in phone number effective 12/19/05**

-----Original Message-----
From: Kleinbaum, Kathy
Sent: Thursday, March 02, 2006 9:12 AM
To: 'John Gatewood'
Subject: RE: MacArthur Transit Village EIR Scoping

John,

There is no set public process in place for posting and noticing the availability of a market study. Since the issue of public interest in the document just came up, the City has not yet developed any plan of how to make such a document available. As a result, I ha e no definitive answer for you. If, as it seems it may be, that the public is very i rested in reviewing this study when it is completed, then we will make all efforts to make it publicly available. The most likely form this will take will be posting it on the webpage that has been set up for this project and sending out notice that it is available via the mailing list for the Citizen's Planning Committee and referencing its availability in the Planning Commission and City Council reports on this project.

There will be no statutory comment periods on the market study as there are on the EIR. It is not a legally required document and therefore is not covered by State law. However, during the entitlements process for the project, the public can comment on the market study.

Feel free to email me if you have any further questions.

Thanks,

Kathy Kleinbaum
City of Oakland
CEDA, Redevelopment Division
250 Frank Ogawa Plaza, Suite 5313
Oakland, CA 94612
Ph: (510) 238-7185
Fax: (510) 238-3691
** Please note change in phone number effective 12/19/05**

-----Original Message-----
From: John Gatewood [mailto:johnnyg@california.com]
Sent: Wednesday, March 01, 2006 7:14 PM
To: Kleinbaum, Kathy
S ject: Re: MacArthur Transit Village EIR Scoping

Thank you, Kathy.

I look forward to reviewing this third party study when it is released. However since this study is not part of the CEQA process at what point will the public get to review and

> 2) What kind of market research has been done to show that these
> condos are desirable?
> - they are hi-rise, hi-density condos in a residential neighborhood.
> - the neighborhood has none of the urban amenities that a person
> terested in living in a hi-rise, hi-density would want nearby.
> they are next door to one of the busiest, if not the busiest freeway
> interchange in Northern California.
> 3) How are these condos going to be priced?
> 4) When these condos go online how many other condos will be going
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> 1) Units selling so slowly that the development team decides to market
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> original owners, rather than selling their units when they leave, rent
> them out instead. My experience having grown up in New York is that
> when projects as dense as this become rentals they tend to decline
> quickly and age badly.
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> My hope is that whatever is built on this site is a success. The only
> thing worse than the existing hole in the ground would be a failed
> project in our neighborhood and I am far from convinced that there is
> a market for this type of development in this kind of neighborhood.
>
> Sincerely,

> John Gatewood
> 360 50th St.
> Oakland, CA 94609
>

Comment on it? My concern is that we residents will not have adequate time to review this study and we will not be able to bring our comments and critiques to the Planning Commission, Redevelopment Authority, BART and City Council in time to affect their decisions in regard to this project.

Will there be a public notice that this market study is being undertaken?

Will there be a public notice when it is submitted to the various interested parties?

Will there be a public notice when it is released to the public for their review?

Is there a statutory public comment period for this market study?

Thanks again,

John Gatewood

On 3/1/06 9:31 AM, "Kleinbaum, Kathy" <KKleinbaum@oaklandnet.com> wrote:

> John,
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> Ph: (510) 238-7185
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> ** Please note change in phone number effective 12/19/05**
> -----Original Message-----
> From: John Gatewood [mailto:johnnyg@california.com]
> Sent: Thursday, February 23, 2006 10:42 PM
> To: kkleinbaum@oaklandnet.com
> Cc: deborah@aegisrealty.com
> Subject: MacArthur Transit Village EIR Scoping
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> fall under the Public Policy and Cumulative Impact components of the
> EIR.
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> Any analysis should include, but not be limited to:
> 1) Who is the target market for these condos?

Fa Natalie

From: Phyllis Tait [pmtait@gmail.com]
Sent: Wednesday, March 01, 2006 6:00 PM
To: nfay@oaklandnet.com
Subject: MacArthur BART parking

Hello Ms. Fay,

I recently read an article about proposals for the newMacArthur Bart area - a "transit village". It all sounds good, but I have two concerns.

1. There are several substantial old houses in the area (some admittedly in bad repair), and I think that it would be a shame to see them demolished. We need all the architecture that gives the Temescal neighborhood its unique flavor.
2. The reduction in parking spaces. I thought we were tryning to increase public use of BART! I would think that a reduction in spaces would discourage commuters. I live in the neighborhood and am impacted by the parking situation as is. I'm probably outside the 1/4 mile radius, but people still park on my street. I expect this problem to get worse, AND I sure do NOT want that 2-hour residential permit thing. My neighborhood looked into that a few years ago, since we are also impacted by the Oakland Tech Highschool, and discovered that it has more downs than ups. I suspect that we would all constantly be getting parking tickets when guests or gardeners or mothers wanted to visit for more than 2 hours (the length of a visitor pass).

I would like to see plans for more, not less parking at the station. Thanks,

Phyllis Tait

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February 28, 2006

Natalie Fay
Senior Transportation Planner
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Dear Ms Fay,

This letter is written to express concern and opposition to the current proposed MacArthur Transit Village Project. This project with its 22 and 20 story buildings is massively out of scale for the neighborhood in which it is planned. The impact on the adjacent neighborhood will be tremendous. Additionally, the 50% decrease in parking at the BART parking lot is a move in the wrong direction at a time when the East Bay is approaching traffic gridlock. It has yet to be proven that high density housing around a transit hub actually results in increased use of that transit system and a decrease in surface traffic. The decrease in BART parking will make it even more difficult for those who actually use the system to continue to do so.

As members of the High Street Neighborhood Alliance we have worked to improve the quality of life of residents in our area. We are not in favor of the Manhattanization of Oakland.

Sincerely,

Adele Foley
Natalya Nicoloff
Laurie Conner
Alphas B. Scoggins
Brenda K. Cooper
Rosetta Eggers
Nellie R. Duncan

High Street Neighborhood Alliance members

Fay, Natalie

F~~n: martha friedberg [mefriedberg@yahoo.com]
S ; Wednesday, March 08, 2006 2:58 PM
To: nfay@oaklandnet.com
Subject: MacArthur BART

To: Natalie Fay, Senior Transportation Planner, CEDA

I am dismayed to read in the March-April issue of Temescal News & Views that part of the City's plan for the MarArthur BART "village" is to reduce public parking for BART riders by half, from 600 to 300 spaces.

This is an absolutely horrible idea which will have negative effects on the surrounding neighborhood. Do you even think there could be anything positive to be gained by this idea? Already, parking for BART is at a premium, with commuters circling and searching and parking on neighborhood streets. With higher population density at BART, at 41st and Telegraph and at 51st and Telegraph, this problem will be exacerbated. How can you plan so short-sightedly? Aren't we supposed to be encouraging BART ridership? How can a person take BART if they cannot park at the station or nearby? I know that if parking can't be found, people will simply stay in their cars and drive to S.F.
H=lving the parking for BART patrons will diminish the lity of life in our neighborhood.
DυN'T DO THIS = RETHINK! Create more, not fewer spaces for BART riders.

Martha Friedberg
Temescal Neighbor
Downtown Oakland Office

Fay, Natalie

From: Karen Dere [girlabout@gmail.com]
Sent: Wednesday, March 08, 2006 6:03 PM
To: nfay@oaklandnet.com
Subject: MacArthur Transit Village

Dear Natalie,

I am writing to voice my concerns over the proposed transit village on the site of the MacArthur BART station. While I applaud the effort to provide more afforadable housing and reduce the need for cars near BART, I do not feel the area is ready to undertake such a huge project. The city needs to address many issues before moving forward with such a large scale development.

Crime-The neighborhoods surrounding MacArthur BART are already a target for crime. Adding 3,000 + more people (800 condos times 2-4 people per unit) is not going to solve this problem (despite the claims of "more eyes"). The city needs to take a long hard look at the residential hotels along MacArthur as well as the blocks of 30th-40th St. Until there is a solid patrol of this area, there will be continual problems. My neighbor was physically assaulted as she walked home from BART, and my car was stolen right out of my driveway (and the city could barely be bothered to deal with that-reports were not filed correctly, and I am still trying to resolve parking tickets that my car got while it was stolen 4 months ago). The kids who had assaulted 30+ people were arrested right around the corner from my house. Is a huge condo complex going to make this area safer?

Trash-I am already an honorary janitor for the City of Oakland. I never thought I would have to pick up as much trash as I do, but by living near 3 fast food restaurants and several schools, it is a daily ritual. With the addition of thousands more people into such a small area, I think you are asking for a huge mess.

Parking-There is often a lack of street parking as it is. I do not want to be inconvenienced further (and have to deface my car with another sticker) by having a residential permit program.

I have lived in the Rockridge-Temescal neighborhood for the last six years, and I feel like safety is steadily going downhill. Until the city can address these issues, I cannot suport the disruption of what little peace is left in our neighborhood by putting up a huge condo/retail complex. I hope you can take the existing resident's quality of life into consideration when making decisions about this project. Thank you for your time.

Regards,

Karen Dere

Fay, Natalie

Fr~~: Kleinbaum, Kathy
S(Wednesday, March 08, 2006 9:12 AM
To: 'Lynette Dias'; 'Amy.Paulsen@lsa-assoc.com'; Fay, Natalie
Subject: FW: MacArthur Transit Village EIR Scoping

One more scoping comment...

Kathy Kleinbaum
City of Oakland
CEDA, Redevelopment Division
250 Frank Ogawa Plaza, Suite 5313
Oakland, CA 94612
Ph: (510) 238-7185
Fax: (510) 238-3691
** Please note change in phone number effective 12/19/05** -----Original Message-----
From: John Gatewood [mailto:johnnyg@california.com]
Sent: Tuesday, March 07, 2006 11:38 PM
To: Kleinbaum, Kathy
Subject: Re: MacArthur Transit Village EIR Scoping

Good morning Kathy,

One more EIR comment. These two towers and the parking structure will act like a sound wall. How will this affect the neighborhood? Will freeway and BART noise bounce of these towers and into the neighborhood below the freeway, making the freeway and BART noise levels in this part of the neighborhood even louder? It is something that should be studied in the EIR.

T iks,

John

On 3/7/06 11:41 AM, "Kleinbaum, Kathy" <KKleinbaum@oaklandnet.com> wrote:

> John,
>
> Thanks for your comments on the EIR topics. These have been forwarded
> to the EIR consultant.
>
> Kathy Kleinbaum
> City of Oakland
> CEDA, Redevelopment Division
> 250 Frank Ogawa Plaza, Suite 5313
> Oakland, CA 94612
> Ph: (510) 238-7185
> Fax: (510) 238-3691
> ** Please note change in phone number effective 12/19/05**
> -----Original Message-----
> From: John Gatewood [mailto:johnnyg@california.com]
> Sent: Monday, March 06, 2006 10:01 PM
> To: Kleinbaum, Kathy
> Cc: deborah@aegisrealty.com
> Subject: Re: MacArthur Transit Village EIR Scoping
>
> Good morning Kathy,
>
> Here are a few things I believe fall under CEQA that should be
> addressed in the EIR:
>
> 1) Pedestrian Safety-

> Please note that there is an existing exit from MacArthur BART to
> MacArthur Blvd. This is already a long, narrow and isolated walk for
> pedestrians. If the two towers and the parking structure are built as
> shown in the plans this walk will become even more isolated, almost a
> rrow dark canyon. Making this exit even less safe.
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> 2) Shadow Study of these towers-
> What kind of shadows will these towers cast onto the rest of the
> project? Also the study should be more than just the shortest day of
> the year but throughout the year; barring that then at least the
> equinoxes and first day of winter and first day of summer.
>
> 3) Reflection Study of these towers-
> What kind of sun reflections will be bouncing off these towers and
> where will they land? In the morning will they be beaming down onto
> the BART Plaza? More importantly from a traffic safety standpoint, in
> the afternoon will these towers cast sun reflections onto cars on the
> Freeway and in the Maze, possibly temporarily blinding drivers?
> Again, like the Shadow Study, this study should take into account the
> seasonal changes of the sun's position.
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> 4) Wind Study of these towers-
> Because of their height will these towers divert upper level winds
> down to plaza level making these plazas windswept and unusable? Will
> they divert upper level winds onto the BART platform making them
> unsafe for those waiting for trains?
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> 5) Aesthetic Impact-
> Impact this project and especially these towers will have on the
> existing architectural fabric of this neighborhood. I am not convinced
> that towers of this height can ever be respectful of the context of
> our neighborhood.
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> Any alternative to this project should explore redistributing the
> density on the site. Presently it appears that there are a series of
> low rise (5-story buildings) then along the freeway are two towers, 20
> and 22 stories respectively. Why can't these towers be brought down in
> height to say 10-12 stories? Then the inner buildings on the site
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> site would remain 5 stories. In this way the height of the project would
> gradually increase as you go further into the site. This approach to the
> project would be an improvement because:
> A) The taller buildings would be much less jarring because there would now
> be a variety of heights on the site, not just 5 stories and high rises.
> B) More visual interest because of the variety of heights.
> C) The opportunity to create large balconies for many more units. The taller
> buildings could have setbacks at 5, 8, 10 stories in order to do this.
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> retail businesses along the reconstituted 39th Street. If you were to
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Fay, Natalie

Frm: Kleinbaum, Kathy
S Tuesday, March 07, 2006 9:15 AM
To: Fay, Natalie; 'Lynette Dias'; 'Amy.Paulsen@lsa-assoc.com'
Subject: FW: MacArthur Transit Village EIR Scoping

Scoping comments submitted today.

Kathy Kleinbaum
City of Oakland
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> the tower units as rentals instead of condos.
> 2) Units not appreciating in value or even losing value so that
> original owners, rather than selling their units when they leave, rent
> them out instead. My experience having grown up in New York is that
> when projects as dense as this become rentals they tend to decline
> quickly and age badly.
>
> My hope is that whatever is built on this site is a success. The only
> thing worse than the existing hole in the ground would be a failed
> project in our neighborhood and I am far from convinced that there is
> a market for this type of development in this kind of neighborhood.
>
> Sincerely,
>
> John Gatewood
> 360 50th St.
> Oakland, CA 94609
>

Fay, Natalie

From: Leslie Firestone [leslie@lesliefirestone.com]
Sent: Saturday, March 11, 2006 5:52 PM
To: nfay@oaklandnet.com
Subject: Macarthur BART Transit Village

Dear Ms. Fay,

I am writing to express some concerns over the MacArthur BART Transit Village proposal. While I am very infavor of infill building and and high density planning, I have some very strong issues with the plan as proposed. First and foremost the idea of putting in 2 buildings at 20 or more stories is completely objectionable. I only know of 2 buildings in all of Oakland at that height and more of that size do not belong in a residential area. The character of this neighborhood, where I live, would be substaintially altered for the negative if buildings of this size are built here. They would dwarf all of the existing properites and I believe be a detriment to our neighborhood. Buildings more in the 5-7 story range would be much more appropriate and acceptable. I don't know if you are aware of the very lengthy process that recently occured regarding building only a 5 story building project at 51st Street and Telegraph but there were many who opposed the 5 stories that is to be built there. I personally feel that 5 stories is reasonable, but 20 is unacceptable.

Additionally, I am strongly opposed to reducing the available parking for BART. MacArthur station is one of the busiest stations on the line and parking is already strained. Forcing folks to find parking in the neighborhood is a terrible idea. I know that a permit area is proposed to protect those living nearby but that is not sufficient for those needing access to BART or those living around it. I believe it will only force more folks to drive because they can't park and those that do, face a dangerous walk to BART. Yes, this neighborhood is not safe at night. In addition, this area is among the highest rental areas in the city and home to many apartment dwellers. This neans that many, many of us are forced to park on the street. Adding more congestion to the streets is not a solution and forcing already financially strained folks to purchase parking while you take away parking for those using mass transit does not make sense.

Finally, while you may think that providing 20% affordable housing is generous, I beleive it is out of touch with the nieghborhood. Again we are a predominately lower income, renting area and the units built here should reflect the character of the existing nieghborhood by providing 40-50% affordable housing.

This plan as it is proposed is a disservice to BART patrons and our neighborhood. Please revise the plan to accomodate at least 600 parking spaces for BART riders, reduce the buildings to a reasonable height (5-7 stories) and increase the percentage of affordable units. I intend to fight this project until our concerns have been addressed.

Thank you for your time.

Sincerely,

Leslie Firestone
445-44th Street
Oakland, CA

Fay, Natalie

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To: nfay@oaklandnet.com
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Sincerely,

Leslie Firestone
445-44th Street
Oakland, CA

North Oakland Residents Against MacArthur Towers (NORAMT)
Factors to consider in the EIR for the
MacArthur Transit Village Project
Case number: ER060004

Land Use

In the City's General Plan, the surrounding community is to be zoned R-50 or lower, in accordance with actual use. The Telegraph Avenue corridor has been revitalized in the Temescal neighborhood (45-51st Sts.) through thriving small business that have a distinctly Oakland flavor. There are the beginnings of this in the area close to BART – the Café Eritrea d'Afrique, the Abyssinian Market, the Korean restaurants, and the church on the corner of 38th and Telegraph which is being converted into an artists' studio and performance space. We want the development and enhancement of the neighborhood along this corridor to continue in the current organic manner that emphasizes development along several blocks and reflects the community.

The project is entirely oversized for this area. The proposed towers are a monolith which disrupts the neighborhood experience. It is a vertical "community" on 7 acres which is planned to have a population equivalent to 6 or 7 blocks of the existing communities. Perhaps it would be more appropriate downtown or uptown, but the "uptown" development has been restricted to 6 stories. Why should there be two towers more than three times that height in this area?

In the over twenty years of discussion about the MacArthur BART space, stress has always been put on the inclusion of the west side of the station in any development. This development cuts off the people and properties west of the station. Further, the towers may discourage development to the west side because of their imposing size and the literal shadow they will cast, or it may encourage further develop to match the large scale of the towers, which is not in keeping with the neighborhood that present homeowners have bought into.

The abrogation of public BART parking for private parking for the residents and shoppers will have a severe impact on the residents of the neighborhood. Parking permits only partly alleviate this problem in terms of tickets. It does not guarantee that present residents will be able to find parking with half a block of their houses, which is, for the many people with small children, a real issue.

Public Policy

The CPC and the various groups that existed before it have come up with many plans for the use of this space. This project resembles none of them, although it is similar to a Space Needle plan presented by Seattle developers which was rejected by the community. As it was then, it is now. This project does not fit with the existing fabric of the neighborhood.

We ask for respect for those who have a vested interest in this community, the homeowners and long-term renters who have over the years fought many battles to keep the neighborhood from degradation by fast food restaurants which inspired the City to pass new regulations to halt fast food proliferation. Homeowners have bought in this neighborhood because it is that, a place where one sees and knows ones neighbors and certain communal values are expressed. This project will have the impact of a de facto eminent domain, as we will lose what we bought into, both in aesthetic and quality of life factors.

There is also the question of tax implications. Since the residences will be built on BART land, do the taxes go to BART, or to Oakland, or to the County. How does the immediate neighborhood benefit in terms of tax revenue?

Population, Employment and Housing

The population of the neighborhood will be increased dramatically, in such a way as may put a strain on utilities, police services and public schools.

The increased traffic will also require greater maintenance of Telegraph and the other surrounding streets, which already have significant pothole problems and are in dire need of repair.

What contingency plans will be in place in event of power outages in the high-rise condominiums, either through the rolling brown/black-outs of the power shortage crisis, or the several black outs caused by failures at substations in recent memory?

Since the project is overwhelmingly residential, there seem to be few long-term employment possibilities. What guarantees are there that the construction jobs will be Oakland residents?

Given the glut of condominium constructions and conversions in Oakland, what is the analysis of the possibility of full occupancy? Since the affordable housing sections of the plan will be in buildings separate from the market-rate development, how will the project avoid ghettoizing the affordable housing residents?

Transportation, Circulation and Parking

While the project is being proposed as a transit hub enhancement, it takes away public transit (BART) oriented parking and replaces it with private parking for residents and shoppers. The commute parking will move into the surrounding neighborhood, which is already impacted. Is there any guarantee that the number of frustrated BART riders who will simply drive to San Francisco rather than deal with parking problems is outweighed by the residents of the new housing who will take BART?

While present BART parkers are long term, the proposal for the parking spaces for retail use are short term which will increase traffic and circulation problems throughout the day. There will be an increase in car traffic.

The configuration of the traffic patterns does not allow entrance from the west. The Martin Luther King side of the BART station is left with no improvements while the developer picks the low-hanging fruit of a large plot of land to maximize their profits with little concern for the existing neighborhood or how the development fits into the existing neighborhood fabric.

Increased traffic on Telegraph will make turning North from the BART station onto Telegraph in an automobile from Apgar, 39th and 40th extremely difficult. It will also make turning South onto Telegraph from 37th, 38th, and 40th almost impossible. The plan is for people coming south on Telegraph to cross traffic and enter the site in the middle of the block at Apgar and 39th St., but it is only shown in the rendering that has no basis in reality. This is hazardous at present and will be more so with the proposed increased chaotic circulation. It will be a gridlock for cars that are waiting to make a left turn and it will be increasingly hazardous for pedestrians and bicycles. It reminds us of the Emeryville traffic jam near IKEA and now circuitous route one must make to get to Trader Joe's and the Powell St. shops, as well as the mysterious gridlock at various intersections along 40th St. in Emeryville.

Aside from the gridlock for cars, the proposal creates a situation that is increasingly pedestrian unfriendly and almost impossible for bicycles. The plan has done little or nothing to improve pedestrian access to the station or the ability to access the proposed retail with the present approach. In a neighborhood that is generally friendly to pedestrians and bicycles, it prioritizes cars coming to the BART station, although not to use BART. It is a lose-lose situation.

There is also the issue of the new intersection at the BART station, approximately where there is a pedestrian stair from the parking lot and the change of the existing road that is presently used predominately by bus transport. The new plan intends to the change the roadway into a two way from the new intersection to 40th Street to allow motorists to exit the new retail/kiss and ride area. If it remains a two lane road, with one lane in either direction, there will be gridlock whenever a bus is parked or a driver is letting off a passenger, and no one can pass. If it is made a three or four lane road, it becomes a monstrous obstacle to the non-motorist.

The existing bus transport road that also provides pedestrian access from the west at MacArthur has not been improved in the slightest but has instead been further impacted in a negative way. There has been no crosswalk at the MacArthur intersection proposed or considered to serve patrons from the western area of District 3. The sidewalk/road, which is already poorly designed, is also to be sandwiched between the existing freeway and the proposed dominating 20 and 22 story residence towers and the raised area between the towers. This only makes an ugly, uninviting pedestrian way even more daunting. That this area is also where there are two motels that are known to have prostitutes in front of them just adds to the problem. There appears to be no attempt to provide or promote pedestrian travel along this important access corridor. Is the assumption that only the people in the condominiums will be the users of BART and that the residents who presently choose to live in this area because its convenience to BART should not be considered? Will students who take BART to MacArthur from other areas of Oakland to walk to Oakland Tech be risking their lives every day?

Air Quality
The increase in automobile traffic, despite smog checks, will increase air pollution in the area. Residents of the new project will have to use their cars to get groceries, since there is no retail outlet for groceries nor a supermarket in the plan. They will have to drive their children to school, if they have children, especially since the area will be so unfriendly to pedestrians. As there are few basic services in the area, they will be using their cars in the evening and on weekends, adding to the traffic and pollution.

Noise
MacArthur BART is next to the freeway and the MacArthur maze, one of the most congested highway interchanges in the country, and therefore noisiest to nearby residents. The two towers as presently planned are not using exterior surfaces to deflect noise, and may well make the noise problem greater for those on the ML King (west) side of the project.

There needs to be a serious analysis of the impact of the noise that bounces off the towers. Since there is a plan for open gathering space in front of the towers, this use will be impacted by the high noise level (as well as the afternoon shadow.)

Hydrology and Water Quality
Geology and Soils
Residents are not expert in these areas. However, we do request a study of where the creek that lies beneath Mosswood Park flows.

Public Health and Safety
This project leaves in place two motels in an area which is known for prostitution and drug-dealing. As a previous seemingly-viable project by LaSalle was abandoned because of the presence of prostitutes on the street at ten in the morning in front of the motels, we as residents wonder whether the influx of presumably wealthy condominium owners will magically decrease crime or whether they might become the targets of it. Since these new residents will be loathe to being accosted, what provisions are being made to increase police surveillance and activity in the area? Is the Oakland Police Department which is understaffed at present signing on to increase their vigilance? How many officers will they commit to this area when it has a seven-fold increase in population?

The other safety issue is that of the transportation gridlock and the lack of pedestrian friendly design. The probability of increased pedestrian accidents seems likely as is the likelihood of car accidents.

Cultural Resources
This project does not seem to be in agreement with the small neighborhood, Oakland feel of the neighborhood in which present homeowners and renters have chosen to live. The

two towers are appropriate to an urban area with many attractions, whereas residents live here because of the availability of houses with yards, gardens and the possibility of knowing one's neighbors, as well as the ability to walk to BART. There are few attractions in the W. MacArthur / Telegraph neighborhood other than fast food, the Korean barbecues and motels. Unfortunately, many of the essential services we require are on Piedmont Ave, Rockridge or Emeryville, which will necessitate the new residents using cars to pass through our neighborhood to get to their destinations.

Aesthetic Resources
The project is not aesthetically in keeping with the neighborhood. It is not even an interesting new design. If it is necessary to build two huge towers, they should at least be architecturally innovative or reflective of the architectural style of the surrounding housing stock.

Shade and Shadow Analysis
It is our understanding that the 20+ story condominium towers will darken the BART plaza after noon, making it unlikely that people will gather to socialize. Instead people will probably pass through as quickly as possible, providing the perception of a ghost town. The towers will also cast a shadow on the west side of the project in the morning hours, having a direct effect on the community garden on ML King and 38th and residences for several blocks west.

Because the taller of the two towers is designed to be on the north side, this will mean that no solar panels will be possible for people north of the project. There are, in fact, several homes with solar panels in the neighborhood that could be impacted by the presence of these towers.

This is an aspect of the EIR that needs to be taken seriously.

Wind Analysis
As the project is proposed, the two towers separated from each other will create two wind tunnels. One will be created by the gap between the two towers, and another will be created in back of the towers where there will be a vacuum and then in front of the towers there will be a high pressure area. These wind tunnels effects, along with the noise from the freeway, will make any open public space unusable as a gathering space.

The present Kaiser buildings on West MacArthur several blocks east already create a wind tunnel which is often unpleasant. With the addition of these buildings, walking and biking in the neighborhood will be arduous, rather than the normal, convenient mode of transportation which they now are. This project which proposes to reduce reliance on cars may well, inadvertently, force residents into their cars for short journeys which are now made on foot or by bike.

We ask that there be a detailed analysis of the wind tunnel effects of the buildings, especially as they will affect the possibility of pedestrian transit and possible community gatherings.

Cumulative Impacts
Although we recognize the value of and have long sought for a development in our neighborhood of a transit village at the MacArthur BART station, the cumulative impact of increased car traffic in inconvenient patterns, wind tunnel and noise problems, and the strains on our beleaguered city services for police and utilities makes this project problematical. The scale of the residential housing is completely out of scale with the surrounding area and inimical to increased use of the BART station by non-residents.

All of our comments have been made with the assumption that the proposed project will in fact be financially viable. As there is no clear plan for the retail sector, we ask that you consider the possibility that it will not be entirely successful, as has happened at the Fruitvale BART station. Instead of being left with empty buildings that are at least to scale with the community, we will be condemned to live on dark, noisy, windy streets. The looming towers may have to go for whatever rent they can get, or Section 8 housing. Then the overcrowding will not be with upscale condo owners, but with people trapped in apartments that have windows that will not open. The height of a building does not guarantee its prosperity. At the time that the presentation was made at Mosswood Park, most of France was under curfew because of the response to disenfranchisement by the residents of similarly tall buildings, people who begged to have them torn down and be allowed to live in the horizontal communities that we now have.

We ask that you consider the appropriate, sustainable use of land in Oakland and the interests of those who already live here.

For the community,

Deirdre Snyder, 420 37th St. Oakland

Lena Robinson, 4405 West St. Oakland

Ron Bishop, 407 45th St. Oakland

Elin Hansen, 488 38th St, Oakland

Ed Cullen, 38884 Webster St., Oakland

Bob Brokl, 636 59th St. Oakland

March 8, 2006

Natalie Fay, Senior Transportation Planner
City of Oakland
Community and Economic Development Agency
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Subject: NOP Comments on MacArthur Transit Village Project

Dear Ms. Fay:

The Oakland Dog Owners Group (O'DOG) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the MacArthur Transit Village Project ("project"), which would construct approximately 800 residential units. We would like the DEIR to discuss the issues raised in this letter regarding recreational space for future residents of this project who will have dogs as pets. We would also like the DEIR to address the potential impacts on existing users of off-leash parks and recreational space from new residents who have dogs. If there is a potentially significant impact, we recommend that the DEIR recommend including feasible mitigation measures.

Off-leash recreation offers exercise for people and their dogs. The daily dog walk gives people a chance to exercise, to be out in nature, to meet with others and to create a community. Dog walkers find friends at off-leash parks; they also monitor each other and spread the word about courtesy, clean-up, and control. A strong argument in favor of creating off-leash spaces is that availability of legal off-leash areas cuts down on illegal off-leash use, making dog-averse people more comfortable in public spaces because there is less chance of encountering off-leash dogs in unauthorized places. It would also promote pet behavioral socialization, thereby making dogs safer around other dogs and people.

Oakland residents who have dogs also have unique recreational needs that regular park space cannot always meet. Dogs require daily exercise to maintain their physical health and responsible guardians (dog owners) will seek to maintain their pets' health. As Oakland is considered an urban environment, it is unlikely that backyard space can adequately meet the exercise needs of all dogs and this project does not appear to offer private space for residents. Further, some residents with physical disabilities who have dogs may be unable to walk far enough or maintain a walking pace that provides their dogs with enough exercise for the good health of their dogs. Dedicated off-leash dog space in municipal parks is a critical service for Oakland residents who have and care for dogs.

Overall, Oakland does a poor job in meeting the recreational service standards of its residents with dogs. According to the *2002 U.S. Pet Ownership and Demographic Sourcebook*,[1] the average number of households that have dogs is 36.1% and, overall, there are 0.58 dogs per household. This means that there are over 87,000 dogs in Oakland. Out of 150,790 households in

[1] American Veterinary Medical Association (2002).

Oakland, 54,435 households have dogs. Applying Oakland's average household size of 2.60 from the Census 2000 data, there are 141,139 Oakland residents who live in a household with a dog. This means that 34.2% of Oakland's existing population (141,139 ÷ 412,318)[2] lives in a household with a dog and should have access to recreational space that meets their daily needs.

Exacerbating the access problems is Oakland Municipal Code 6.04.080 that states all but five of Oakland's 99 municipal parks are off-limits to dogs[3] – even when they are leashed and under the control of their guardians. Hardy Park is Oakland's only dedicated recreation area for residents with dogs and offers less than one acre of dog and dog owner space. This represents less than 0.1% out of 2,257 acres of Oakland park space.[4] Even when considering the Joaquin Miller and Dimond parks that allow leashed only access which is a lower quality recreational service and not geographically accessible to all Oakland residents, the total acreage open to dog owning residents is well under what it should be. By contrast, all three of the Piedmont's parks allow off-leash and on-leash access for dogs. There is not enough dedicated space for Oakland residents with dogs and this project will make the situation worse for existing residents unless it provides adequate off-leash space for new residents and their dogs.

We recommend that the DEIR address the issue of service standards for a portion of the project's population that has unique and important recreational access needs. When considering OSCAR's service standard of 4 acres of local-serving parks per 1,000 residents, Oakland would need an additional 562 acres of off-leash recreational space to serve its existing residents that have dogs. As acknowledged in other EIRs, the City falls far short of its service standard goal for residents overall with an existing level of just 1.33 acres per 1,000 residents. In the case of access for Oakland residents with dogs, we recommend applying an even more reasonable service standard of 1 off-leash acre per 1,000 residents. This would leave the City of Oakland approximately 138 acres below its own service standard goal for its existing population. The construction of this project without providing off-leash recreational space could further reduce the service standard for existing residents using Hardy Dog Park and cause or accelerate physical deterioration of this vital park and recreational area. This should be considered a potentially significant impact in the DEIR and mitigation should be required as part of the project's conditions of approval.

We recommend that the DEIR identify the number of off-leash park acres that would be needed if the project is approved. The California Civil Code 1360.5 (Davis-Sterling Act) limits pet restrictions on separate interests within a common interest development and states that project residents could have at least one pet. We recommend that the DEIR identify a conservative estimate of project residents who have dogs given this law and the pet ownership statistics identified above. We also recommend that the DEIR compared this figure to OSCAR standards for those residents and identify the amount of off-leash park space that would be necessary to meet the recreational needs of project residents. OAWG recognizes that providing off-leash dog space on the project site may not be feasible given the project's objectives of maximizing housing densities and we recommend that the DEIR identify alternative sites on existing municipal park land and other public lands that could reasonably accommodate off-

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[2] Oakland population figure for 2005 from the California Department of Finance.

[3] The City's website does not include Knowland, Leona or Glen Daniel/King Estate on its list of parks.

[4] Total Oakland park acreage identified in the Draft EIR for the Oak to Ninth Project.

leash recreational areas. In particular, Mosswood Park would be one ideal site given its large area, the presence of adjacent major arterials and a freeway, its proximate location to the project site and the limited number of residences immediately adjacent to the park. The provision of off-site dog parks is a feasible mitigation measure that could reduce this potentially significant impact to less-than-significant.

While it is critical to include dedicated space for dogs as part of this project, it is also important to permit dogs to be walked on-leash on all park paths in the City and in areas of the project that would not have conflicting uses. This will enhance livability in Oakland and increase the project's appeal for future residents. Further, any mitigation measures considered infeasible should be identified as well as the justification for that determination. If you have any questions about these comments, please feel free to contact me at (510) 530-5030.

Sincerely,

Emily Rosenberg

Emily Rosenberg
Co Founder O'DOG
Oakland Dog Owners Group

cc. Oakland Parks and Recreation Advisory Commission
Director Audree Jones-Taylor
California Dog Owner's Group (CalDOG)
Oakland Animal Welfare Group (OAWG)

EAST BAY
MUNICIPAL UTILITY DISTRICT

March 8, 2006

Natalie Fay, Senior Transportation Planner
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Notice of Preparation of a Draft Environmental Impact Report - MacArthur Transit Village Project - Oakland

Dear Ms. Fay:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of Draft Environmental Impact Report (EIR) for the MacArthur Transit Village Project located in the City of Oakland. EBMUD has the following comments.

WATER SERVICE

Pursuant to Section 15083.5 of the California Environmental Quality Act Guidelines, and Section 10910-10915 of the California Water Code, a Water Supply Assessment (WSA) will be required, as the entire scope of the project includes at least 500 dwelling units. Please submit a written request to EBMUD to prepare a WSA. Preparation of the WSA will require that EBMUD contact the project sponsor to gather data and estimates of future water demands for the project area. Please be aware that the WSA can take up to 90 days to complete from the day the request was received.

EBMUD's Central Pressure Zone, with a service elevation between 0 and 100 feet and/or Aqueduct Pressure Zone, with a service elevation between 100 and 200 feet, will serve the proposed development. Main extensions, at the project sponsor's expense, will be required to serve the proposed development. Off-site pipeline improvements, also at the project sponsor's expense, may be required to meet domestic demands and fire flow requirements set by the local fire department. Off-site pipeline improvements include, but are not limited to, replacement of existing water mains to the project site. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the proposed development. Engineering and installation of water mains, services and off-site pipeline improvements requires substantial lead-time, which should be provided for in the project sponsor's development schedule.

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . TOLL FREE 1-866-40-EBMUD

EBMUD owns and operates 6-inch water mains located in 39th Street and Apgar Street that provide service to EBMUD customers in the area. The integrity of these pipelines must be maintained at all times. Any proposed construction activity in 39th Street and Apgar Street needs to be coordinated with EBMUD and may require relocation of the water mains, at the project sponsor's expense.

The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste, or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. EBMUD will not install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants.

The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater. EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed, and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation or EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant is anticipated to have adequate dry weather capacity to treat the proposed wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Environmental Services Division. However, the City of Oakland's Infiltration/Inflow (I/I) Correction Program set a maximum allowable peak wastewater flow from each subbasin within the City and EBMUD agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. EBMUD prohibits discharge of wastewater flows above the allocated peak flow for a subbasin because conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above this agreed limit. The developer for this project needs to confirm with the City of Oakland Public Works Department that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. The projected peak wet weather

wastewater flows from this project need to be determined to assess the available capacity within the subbasin and confirmation included in the environmental documentation. Suggested language to include in the EIR is as follows: "The City of Oakland Public Works Department has confirmed that there is available wastewater capacity within Subbasin *(insert subbasin number here)* that is reserved for this project."

In general, the project should address the replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in I/I. Please include a provision to control or reduce the amount of I/I in the environmental documentation for this project. The main concern is the increase in total wet weather flows, which could have an adverse impact if the flows are greater than the maximum allowable flows from this subbasin.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD would request that the City of Oakland include in its conditions of approval a requirement that the project sponsor comply with the Landscape Water Conservation Section, Article 10 Chapter 7 of the Oakland Municipal Code. EBMUD staff would appreciate the opportunity to meet with the project sponsor to discuss water conservation programs and best management practices applicable to the integrated projects. A key objective of this discussion will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the project.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:JAJ:sb
sb06_061.doc

cc: MacArthur Transit Village Community Partners, LLC

LAW OFFICES
McINERNEY & DILLON
PROFESSIONAL CORPORATION
1999 Harrison Street, Suite 1700
OAKLAND, CALIFORNIA 94612-3610
TELEPHONE: (510) 465-7100
FACSIMILE: (510) 465-8556

Date: March 15, 2006

To: Natalie Fay
Senior Transportation Planner
City of Oakland
(510) 238-6538

cc: Ruth E. Treisman
(510) 654-8512

From: Charles E. Toombs, Esq.

Number of pages transmitted (including this page): 19

If copy is illegible or incomplete, please telephone (510) 465-7100 and ask for Linda M. Love

Original to follow: Yes X No__

Subject: **MacARTHUR TRANSIT VILLAGE PROJECT**
Owner of Record of 505 40th Street, Oakland California
Our File No. TREI-4601

SUPPLEMENTAL MESSAGES

LAW OFFICES
McINERNEY & DILLON
PROFESSIONAL CORPORATION
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CHARLES E. TOOMBS
cet@mcinerney-dillon.com

March 15, 2006

Via Certified Mail/Return Receipt Requested

Natalie Fay, Senior Transportation Planner
Community and Economic Development Agency
City of Oakland
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Via Facsimile (510) 238-6538
E-Mail nfay@oaklandnet.com

Re: Notice of Preparation ("NOP") of a Draft Environmental Impact Report
MacArthur Transit Village Project
Public Comments submitted on behalf of Ruth Ellen Treisman
Owner of Record of 505 40th Street, Oakland, CA

Dear Ms. Fay:

Ms. Treisman has engaged our firm to advise her on the impact of the MacArthur Transit Village Project (the "Project") on her three-story, mixed use commercial and residential building located at 505 40th Street, on the southwest corner of Telegraph and 40th Street (the "Treisman Property"). The Treisman Property consists of street-level commercial property, coupled with two floors of residential apartments above it, and it is specifically excluded from the footprint of the Project.

Enclosed please find the following material submitted on behalf of Ms. Treisman for your review and consideration in response to the NOP soliciting public comment on the terms and conditions of the Project and the Draft Environmental Impact Report ("EIR"):

1. Case File Number: ER060004 accompanying Oakland City Planning Commission Agenda dated March 15, 2006, containing the recommendations of your Staff with respect to the scope of the EIR;

2. A letter dated March 13, 2006 that Ms. Treisman sent to me via email, separately stating her concerns about the scope of the EIR.

The balance of this letter will further explore these concerns.

Overview

It is apparent that the Project will make a major contribution towards the redevelopment of Oakland, and we applaud efforts by the City of Oakland to increase the quality of urban living in and around this wonderful old neighborhood. However, construction of a project of this magnitude will have a major impact on the current property owners and, in particular, on the Treisman Property, which is immediately adjacent to, but excluded from, the footprint of the Project. Your Staff has identified most of the major concerns which are discussed and reflected in Case File Number ER060004, linked to the Agenda dated March 15, 2006, of the Oakland City Planning Commission. The Case File contains a comprehensive listing of the nature and quality of the issues affecting the Project in general and Ms. Treisman in particular. We wish to see each of those issues of concern adequately addressed in the EIR; both as they apply to the Project as a whole, and as they apply to the Treisman Property.

Ms. Treisman is also terribly concerned that the Project, as currently proposed, will adversely affect the Treisman Property by, and among other things: (i) limiting available parking both during and after the Project's construction; (ii) by causing major interruptions with her ability to rent both commercial space and residential units therein during the construction phase, which may well diminish her use and income from the property; and (iii) by potentially surrounding the Treisman Property with massive five-story structures that will envelope and dwarf it without regard to the context of the Treisman Property or the adjoining neighborhood.

Accordingly, Ms. Treisman wishes to insure that the EIR carefully address those issues identified by your staff as reflected on the Case File Number, and other issues which she has identified in her enclosed letter, as such issues affect the continued integrity and value of the Treisman Property.

I. Case File Number: ER060004 Accompanying Oakland City Planning Commission Agenda dated March 15, 2006.

Case File Number ER060004 contains a thoughtful Project Description and Background, with a discussion of the Scoping Session set for March 15, along with a discussion on what your Staff have identified as a preliminary list of environmental and project issues that the City will evaluate in the EIR and during the review of the Project. We formally request that the EIR carefully review each and every item in the Case File, and in particular, those items specifically identified by your staff on the Preliminary List at pages 5 and 6, both as they apply to the Project, and all adjoining neighborhoods as a whole and as they apply to the Treisman Property in particular, and that the EIR incorporate by reference and adequately address each and every item therein as areas of concern to Ms. Treisman for purposes of this public comment.

We also hope that efforts to develop the Project in conformity with the General Plan and Zoning for the neighborhood effectively result in the creation of a Project that is both exciting and creative in its new space, but also carefully respects the context of the pre-existing neighborhood and integrates itself with the pre-existing structures not otherwise designated as part of the project in general and with Ms. Treisman's project in particular.

Finally, Ms. Treisman requests that the City of Oakland engage the adjacent neighborhood in a comprehensive, meaningful, regular, and continuing dialogue regarding the scope of the Project, its design and the impact the Project will have on both these adjacent neighbors as well as the City of Oakland as a whole as it proceeds with the design of the Project. These neighbors in general (and Ms. Treisman in particular) will be directly impacted by the Project and it is crucial to the successful development of the Project that their voice be heard and respected.

II. Concerns of Ms. Treisman

I am enclosing a copy of a letter dated March 13, 2006, from Ms. Treisman which expresses her concerns over the Project. I ask that the CEDA adequately address each of the concerns set forth in her letter in addition to those concerns above in the EIR. The following is a summary of her concerns.

A. Parking Solutions

At the outset, Ms. Treisman is extremely concerned about the lack of adequate parking and a proposed decision to reduce the number of BART parking spaces from 600 spaces to 300 spaces in the face of an existing, immediate and pressing parking crisis arising from the current lack of adequate parking. This lack of parking already causes problems for the adjacent neighborhood, including the Treisman Property. Assuming that the Project only provides adequate parking for the residential users and a moderate amount of parking for customers of the commercial tenants, the net effect of this decision is to reduce the number of allowable commuter spaces for BART by 300 spots, resulting in over 300 additional drivers who must look for adequate parking space, flooding the neighborhood in their quest for parking. This will impact already diminished parking for users of the Treisman Property, and will create a problem that dramatically increase, if for any reason, the parking for the new Project is inadequate for the users of the Project or their guests.

B. Impact of Project Construction on the Customers and Tenants of Adjacent Property Owners

Ms. Treisman also has reservations about the impact that the proposed construction will have on adjacent businesses who must either sell their properties within the Project footprint to the City or whose businesses will be negatively impacted by the ongoing construction as the clientele is unable to access their stores. Ms. Treisman accurately details the impact that prolonged construction will have on her ability to generate rental income from her commercial and residential tenants and fears that she may lose the ability to rent her premises and be left with having to pursue the City of Oakland for lost income due to the construction of the Project and its prolonged interference with her business.

Ms. Treisman is also concerned about the impact that a new structure and its lengthy construction schedule will have on her plans to build a localized commercial and art center designed to meet the needs of the community adjacent to the BART lot.

C. Design Details

We have reviewed the original plan documents from the City's Request for Proposals, MacArthur BART Station Transit Village, Oakland California, prepared by the City of Oakland Redevelopment Agency and the San Francisco Bay Area Rapid Transit District prepared in the fall of 2003 (the ("RFP"). We note that diagrams which accompany the RFP initially include the Treisman Property and other properties to the south of the proposed Project within the footprint of the Project. Such a design makes sense because it effectively gives the City of Oakland a larger site and a clean fresh palette for design and construction of a project of this scope and magnitude. However, the current design documents specifically carve out the Treisman Property as well as other properties south of the Project boundary. This may result in the creation of a new project which may or may not take into account the neighboring properties and which, in the absence of careful and thoughtful planning, may result in the five stories and two multi-storied towers of the new Project effectively dwarfing the existing and excluded sites as well as creating a visual incongruity between the two sets of property. This will have the effect of ruining the aesthetics of both the existing surviving properties and the new Project unless careful thought is given to how best to integrate the two groups of property into one neighborhood.

In this regard, it is crucial that the City of Oakland make every effort to insure that the Project adequately fit into the proposed site and be built to a property scale that does not dominate the adjacent property sites or the Treisman Property. Ms. Treisman is quite concerned that the proposed five-story project will be immediately adjacent to and otherwise abut immediately against her structure, effectively dwarfing her older building with new structures that rise to five stories immediately adjacent to her and which also contains separate twenty-plus structures within its own boundaries, all of which may be built without regard to the neighborhood context. Ms. Treisman asks that some of the proposed open space within the interior of project be relocated so that it is adjacent to her property, providing a buffer zone and a more seamless transition between the two sites as a whole.

Likewise Ms. Treisman wishes to see the Project designed so that perhaps it steps back from her three story building to its own projected height in a more gradual terraced slope rather than simply have an immediate and visually offensive increase by placing a five-story modern building next door to her three-story structure built in 1918. The Treisman Property reflects a style of building that is a direct link to Oakland's historic past, and it is hoped that the Project takes this style of architecture into account in creating a complementary architectural design for the Project with a corresponding scope and magnitude. As one critic and planner states, "(T)he secret to shaping an attractive urban landscape is the attention paid to how the pieces fit together–how they respect the street and the sky, and the quality of the materials and design." John King *Edgy New Buildings needn't clash with Bay Area Downtowns* San Francisco Chronicle, March 7, 2006 at D-1. Ms. Treisman hopes that the City of Oakland adopts wholeheartedly both the spirit and meaning of these words as it creates a new space and asks that the EIR take into account the needs to design a project that is sensitive to her building both in design and in scale.

III. Summary

Ms. Treisman wishes to see each of the staff recommendations set forth in the Case File Number: ER060004 carefully considered in the preparation of the EIR in respect to both the Project as a whole and in respect to her property in particular. Additionally, as indicated in the attached letter, Ms. Treisman is not adverse to construction of the Project; however, she does wish to see it developed so as to adequately address her concerns over parking. Further, Ms. Treisman does not wish to have the construction of the property interfere with her ability to lease space in her building and may seek compensation for lost income from the City of Oakland in the event that the EIR fails to provide adequate safeguards to protect her commercial interests in owning and operating her rental property. Finally, Ms. Treisman asks that any design of the Project takes into account the location of her property, that it be sensitive to her property's location, that open spaces be created around her property to serve as a buffer between the Project and her property, and that the Project does not dwarf her property or abut so closely to it as to diminish its character and quality.

Please carefully review this letter and the enclosed material and call or write with questions or comments.

Very truly yours,

McInerney & Dillon, P.C.

Chuck

Charles E. Toombs

CET/lml

Enclosure

cc: Ruth Ellen Treisman (w/enc)
(via Email ruthiescafe@earthlink.net)
(U.S. Mail)

Location:	**MacArthur BART Station (also includes properties on Telegraph from Apgar to 40th Street, excluding the corner parcel at 40th and Telegraph) See map on the reverse.**
Proposal:	MacArthur Transit Village – Scoping Session to receive comments for a Draft Environmental Impact Report (DEIR) regarding the proposal to construct a transit village on the 6.84 acre site, including 800-units of housing and 30,000 square feet of commercial space.
Applicant:	Deborah Castles, MacArthur Transit Community Partners, LLC. / (510) 273-2002
Owner:	San Francisco Bay Area Rapid Transit
Case File Number:	ER060004, Pud06058, Rz06059
General Plan:	Neighborhood Center Mixed Use
Zoning:	R-70 (High Density Residential); C-28 (Commercial Shopping District); S-18 (Mediated Residential Design Review Combined Zone)
Environmental Determination:	Staff has determined that an Environmental Impact Report (EIR) must be prepared for this project. A Notice of Preparation to prepare the EIR was published on February 15, 2006. The comment period for the NOP ends on March 16, 2006.
Service Delivery District:	2 – North Oakland
City Council District:	1
Staff Recommendation:	Receive public and Commission comments about what information and analysis should be included in the EIR.
For further information:	Contact Kathy Kleinbaum at (510) 238-7185 or by e-mail at kkleinbaum@oaklandnet.com

SUMMARY

MacArthur Transit Community Partners, LLC. (MTCP) has filed an environmental review application to begin review and consideration of the MacArthur Transit Village project. The project site is approximately 6.84 acres, the majority of which is currently occupied by the MacArthur BART station parking lot, a surface parking lot with approximately 600 parking spaces. The project site also includes 4 one-story commercial parcels that front on Telegraph Avenue between Apgar Street and 40th Street.

The MacArthur Transit Village project proposes the construction of approximately 800 units of high-density multi-family housing, 30,000 square feet of ground-floor neighborhood serving retail and community space, and 1330 off-street parking spaces, including 300 spaces designated solely for BART patron use. The proposed project also includes several public infrastructure upgrades, including a new public street through the site off of Telegraph Avenue, the renovation of the existing BART entry plaza, intermodal improvements, and a new public plaza adjacent to the retail space. As part of the project, the applicant has requested that the project be Rezoned and a Preliminary Development Plan be considered by the City.

#1

(Contains map showing the project site and general vicinity)

The City will be the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and the land use and project approvals. As such, the City has the responsibility to prepare an Environmental Impact Report (EIR) for the project. The Notice of Preparation (NOP) was published on February 15, 2006 (see Attachment A). This scoping session is being held to solicit public and Commission comments on what information and analysis should be contained in the EIR. In addition to these oral comments, written comments will be accepted until March 16, 2006. Written comments are encouraged in order to provide an accurate record of public comments.

PROJECT DESCRIPTION AND BACKGROUND

Project Background
The City has been working jointly with BART and community in a planning process for the development of the MacArthur Transit Village since 1993. The MacArthur BART Station is located in the Broadway/MacArthur/San Pablo Redevelopment Project Area. The Redevelopment Agency and BART selected a development team for this project in April 2004 through a competitive Request for Proposals process. The development team, MacArthur Transit Community Partners, LLC (MTCP), is a limited liability company that consists of a partnership between Aegis Equity Partners, Shea Properties, and BUILD (BRIDGE Urban Infill Land Development, LLC). However, it is only recently (February 5, 2006) that applications for rezoning, preliminary development plan approval, and environmental review were submitted and the environmental review process initiated.

Existing Land Uses
The 6.84 acre project site includes the surface BART parking lot and 4 one-story commercial parcels, currently in private ownership, that front the parking lot on Telegraph Avenue between Apgar Street and 40th Street. The 3-story residential building located at the corner of 40th Street and Telegraph is not included within the project site. The BART parking lot is currently sunken approximately 1.5 levels below street level.

Proposed Project
MTCP's proposal for the MacArthur Transit Village project includes six buildings with approximately 800 units of high-density multi-family housing and 30,000 square feet of ground-floor neighborhood-serving retail and community space. Approximately 20 percent of the units would be below market rate, with the remainder of the units being for-sale condominiums. The residential buildings along Telegraph Avenue and 40th Street would be five stories tall, and would include four stories of housing above ground-floor retail. Set back against the freeway in the rear of the BART parking lot are two residential towers, one 20-story and one 22-story in height.

The project includes approximately 1,030 parking spaces for the residential, retail, and community use. Additionally, the project includes the replacement of 300 of the 600 existing BART parking spaces on site. As part of the proposed project, a Residential Parking Permit Program, covering a ¼ mile radius around the project site, would be implemented to alleviate spillover parking impacts on the surrounding neighborhood. The proposed project also includes several public infrastructure upgrades, including a new public street through the site off of Telegraph Avenue, the renovation of the existing BART entry plaza, intermodal improvements, and a new public plaza adjacent to the retail space.

Land Ownership
Approximately 5.9 acres of the project site is owned by BART. BART entered into a three-party Exclusive Negotiating Agreement with MTCP and the Redevelopment Agency to explore the disposition of their property to the development team for the purpose of developing the MacArthur Transit Village project. The remaining 0.95 acres of the property are privately held commercial properties.

Project Phasing
MTCP proposes to develop the project in several phases over a four-year period between 2008 and 2012. The development will begin with the construction of a parking podium for the replacement BART parking and the parking for the residential and retail components of the project and the project infrastructure. The housing and retail construction will begin after the podium is complete.

Project Review Process and Entitlements
The project sponsor is requesting a rezoning to a Transit Village Zoning District, approval of Preliminary and Final Development Plans, subdivision approval, design review approval, and other permits that may be necessary. In addition, approvals or permits may also be required from other agencies for activities such as demolition of structures, site remediation, tree removal permits, and possible other activities.

Environmental Review Process
The environmental impact report will address potential environmental impacts associated with construction and operation of the proposed project including construction of the project and obtainment of all necessary zoning, grading and building permits, and any other discretionary actions required by the City of Oakland and other governmental agencies.

PURPOSE OF THIS SCOPING SESSION

The main purpose of this scoping session is to solicit comments from both the Commission and the public on what types of information and analysis should be considered in the EIR. Comments about the issues that should be considered, the types of information that should be included, and the range of alternatives to the project that should be assessed are all appropriate comments. This scoping session is not a review or consideration of the merits of the project. There will be a full public process to consider the project itself.

KEY ENVIRONMENTAL AND PROJECT ISSUES IDENTIFIED TO DATE

Staff has identified the following preliminary list of environmental and project issues that the City will evaluate in the EIR and during the review of the project:

AESTHETICS:
- Relationship of site development to surrounding neighborhoods
- Mass and bulk of proposed buildings
- Height of proposed structures
- Light and glare impacts
- Shadow impacts on public spaces
- Potential wind impacts

AIR QUALITY:
- Potential dust impacts from demolition and construction activities
- Potential air quality impacts due to future increase in vehicular activity
- Exposure of sensitive receptors to toxic air contaminants

BIOLOGICAL RESOURCES
- Tree Removal

CULTURAL/HISTORIC RESOURCES:
- Potential impacts of grading activities on cultural or historical resources
- Potential impacts to paleontological resources

GEOLOGY AND SOILS:
- Soil stability and adequacy for safe development of the site
- Potential effects of earthquakes on site development

HAZARDS AND HAZARDOUS MATERIALS:
- Historic use of the project site
- Contaminated soils on project site
- Emergency response and evacuation

HYDROLOGY/WATER QUALITY:
- Capacity of stormwater drainage system
- Water quality both on and off-site due to the project
- Adequacy of on-site drainage improvements to serve the site

LAND USE AND PLANNING:
- Conformance with General Plan
- Conformance with City ordinances, including the Zoning Ordinance

NOISE:
- Potential noise impacts from demolition and construction activities
- Impacts of future residential development and proximity to BART tracks

- Impacts of future residential development and proximity to the freeway
- Impacts of project-related noise on the surrounding area

POPULATION/HOUSING:
- New residential population in this location

PUBLIC SERVICES:
- Adequacy of fire protection services, police protection services, and other public facilities
- Sufficient school capacity for children who live in the project

RECREATION:
- Park land, open space, and recreational facilities

TRANSPORTATION AND TRAFFIC:
- Existing congestion and other operations problems at the intersections in and surrounding the project area
- Congestion and operational problems on streets in and near the project area
- Congestion and operations problems on regional freeway facilities
- Impacts on pedestrian access and safety in nearby areas resulting from project-generated traffic
- Pedestrian circulation to and through the project site
- Potential vehicular and pedestrian conflicts
- Truck traffic from the site preparation and grading activities
- Multi-modal transportation links (public transportation access)
- Bike Access

UTILITIES AND SERVICE SYSTEMS:
- Adequacy of sewer infrastructure, water capacity, and energy to serve the mixed use development

GENERAL PLAN AND ZONING CONSISTENCY

General Plan Conformity

The General Plan land use classification for the project site is Neighborhood Center Mixed Use. This classification is "intended to identify, create, maintain and enhance mixed use neighborhood commercial centers. These centers are typically characterized by smaller-scale pedestrian-oriented, continuous street frontage with a mix of retail housing, office, active open space, eating and drinking places, personal and business services, and smaller scale educational cultural, or entertainment uses." The maximum allowable FAR for this classification is 4.0. The maximum residential density is 125 units per gross acre. Vertical integration of uses, including residential units above street-level commercial space, is encouraged. The project proposal conforms with the existing General Plan Designation.

The MacArthur Transit Village project proposal is supportive of several of the Transportation and Neighborhood Objectives of the LUTE including, but not limited to, the following major objectives and policies:

***Objective T2** Provide mixed use, transit-oriented development that encourages public transit use and increases pedestrian and bicycle trips at major transportation nodes.*

***Policy T2.1** Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city commuter rail.*

***Policy T2.2** Transit-oriented development should be pedestrian-oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.*

***Policy T2.3** Promote neighborhood-serving commercial development within one-quarter to one-half mile of established transit routes and nodes.*

***Objective N3** Encourage the construction, conservation, and enhancement of housing resources in order to meet the current and future needs of the Oakland community.*

***Policy N3.1** Facilitating the construction of housing units should be considered the highest priority for the City of Oakland.*

***Policy N.2** In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland.*

***Policy N3.8** High-quality design standards should be required of all new residential construction.*

Zoning Amendment
The project applicant is proposing rezoning the project site to a zone that better represents the density allowed in the General Plan classification for the area. The project site is currently zoned High Density Residential (R-70), Commercial Shopping District (C-28), and Mediated Residential Design Review Combined Zone (S-18). Approval of rezoning would require action by the Planning commission with final action by the City Council.

Broadway/MacArthur/San Pablo Redevelopment Plan
This project is located in the Broadway/MacArthur/San Pablo Redevelopment Area. The proposed project is included in the Redevelopment Plan and was included in the analysis of the Environmental Impact Report for the adoption of the Redevelopment Plan which was certified on June 7, 2000.

COMMUNITY OUTREACH

The MacArthur BART Citizen's Planning Committee (CPC) is a community group that has been meeting since 1993 to plan for the development of a transit village at the MacArthur BART Station. The development team has held several meetings with the CPC since they were selected by the Agency and BART in order to define project goals and to report on project process. A community meeting with the CPC was held on November 9, 2005 at the Mosswood Recreation Center to discuss the project proposal.

Over 600 notices announcing the release of the Notice of Preparation and the Planning Commission public hearing were sent out on February 15, 2006. A community meeting with the CPC, explaining the environmental review process, was held on February 22, 2006 at the Mosswood Recreation Center. Additionally, staff held a scoping session for interested and responsible public agencies on February 28, 2006. Staff will present a verbal summary of the Agency scoping session at the Planning Commission scoping session.

CONCLUSION

Staff requests the public and the Planning Commission to provide comments and direction on what types of information and analysis should be considered in the EIR.

Respectfully submitted:

Claudia Cappio
Development Director

Prepared by:

Kathy Kleinbaum, UEA III
Redevelopment Agency

Attachments:

A. Notice of Preparation (NOP)
B. Project Site Plans and Elevations

Subject: emailing: planning
From: "Ruth Treisman" <ruthiescafe@earthlink.net>
Date: Tue, 14 Mar 2006 18:58:18 -0800
To: "Charles E. Toombs" <cet@mcinerney-dillon.com>

Your files are attached and ready to send with this message.

— Ruth Treisman
— ruthiescafe@earthlink.net
— EarthLink: The #1 provider of the Real Internet.

planning.wpd	**Content-Description:**	planning.wpd
	Content-Type:	application/octet-stream
	Content-Encoding:	base64

Charles E. Toombs
Law Offices of McInerney & Dillon
1999 Harrison Street - Suite 1700
Oakland, CA 94612-4700

March 13, 2006

Dear Charles,

Here are my thoughts about the MacArthur Transit Village project:

The most obvious and clearly maddening part of the project is the apparent lack of planning and understanding of the needs of the neighborhood in which it is to be a part. By this I mean the idea of reducing the BART parking spaces from 600 to 300 spaces, knowing that parking in the immediate area is already negatively impacted by people parking in the neighborhoods when commuters cannot find parking in the BART parking lot. The so-called planners seem to think that adding more restrictive parking to the mix will help; it will merely cause more problems, as the commuters search frantically for a place to put their cars on the way to work. I live about six blocks from the BART station, and have a number of friends and neighbors who are angry about this idea, as am I. This is a clear indication of how little these planners truly understand the needs of the neighborhood, and of the citizens of Oakland.

The second part of the lack of planning is the idea that the current businesses and property owners in the actual affected area (and I include my building) have no right to complain about the plans which will certainly affect them negatively in two ways. It will affect them temporarily during the pre-planning, planning and construction phases, either by eliminating their businesses completely (if their buildings are torn down), or by creating so much noise and dirt in close proximity to the business (or in my case any apartments that I may wish to rent)that "business as usual" becomes impossible. I called both the City of Oakland contact (Kathy Kleinbaum) and the BART contact (Deborah Castles), and expressed my outrage that the plan was conceived with so little regard for current property and business owners, and was told, essentially, that my needs were not a priority, and that I "should have known that this project was going to happen" before I bought the building. I did not know, nor would most reasonable people think to ask if a BART station or parking lot, which appeared to be a permanent fixture, would be changing at any time in the near future. I found out about the possible plans by calling BART to see if I could rent or use the area of trees and plants between the parking lot and my property to make a public park, with picnic tables and walkways, which I would have maintained, and was told that the City of Oakland and BART would be doing a project that would include that area. This was in 1999, and they have not yet needed to use it; I could have been using it all this time!!
The most upsetting part of the apparent lack of planning is actually after the project is completed. Instead of planning for the open space to coincide with the current reality of openness around my three-story building, which is the only building taller than one story in the area under discussion, they plan to surround my building with five-story buildings on the two sides not facing a busy street, and essentially place my beautiful jewel, on which I have spent a great deal of time, energy, and money to restore and beautify, in a dark and unpleasant hole, cutting off the sunlight,

air, views, and sense of space that is currently available. It seems almost painfully obvious that the planners, who seem to think they are entitled to do whatever they want to the neighborhood and the current occupants and business owners, have not chosen to consider placing the wide public thoroughfare and public gardens around my building, where it might mitigate some of the difficulties I am facing. Since the plan seems to call for razing all of the other structures except my building, it seems obvious that my needs and wishes could certainly be taken into account, and the planning could include reasonable sensitivity to the only building left standing.

My mission from the beginning, and the reason that I bought the building at 505-40th Street, has been to create a community center of sorts, with live jazz, artwork, a small cafe and deli, perhaps a corner store with the kinds of food items that people leaving work and returning home would want, such as bread, milk and produce, but with an emphasis on quality (such as fresh baked goods). I envisioned a sort of mini-Market Hall, smaller and not as upscale as the one in Rockridge, but appealing to a group of people who value freshness and quality, and who like music and art and a sense of community. This can still be accomplished, but it will be almost impossible to interest tenants in staying in a building that is not only a few feet away from a construction zone (and right outside their windows, for the most part), but who will soon be living in a dark, cold, cave-like atmosphere instead of having a beautiful, sunny, warm, airy vista to look at daily.

Therefore, if the project is to move forward, I would like to ask for three specific things:

1. Rethink the parking situation, and add rather than subtract BART parking, as well as adding adequate parking for the residents and customers of the new (and old) mixed-use properties.

2. Compensate my lost rental income during the periods of loss; this may include (although not be limited to) the period for the nine months prior to any actual construction (as my leases are for one- year periods), as well as the period during and immediately after the construction itself, until it is clear that it no longer impacts on my ability to attract good tenants.

3. Plan the structures so that the public space, roadway, walkway, etc., are located around my building, so that the tallness of the five-story buildings is somewhat less of a problem, and redesign the buildings, so that the tallest parts are somewhat removed again, by creating a sort of stair-step pattern, with the lowest part (perhaps one story) immediately closest to the public space around my property, and then gradually getting taller as the distance increases.

These three factors would greatly reduce my opposition to the project as it is currently presented, and would probably be better for the neighborhood as a whole.

Thank you for your kind attention to these matters of the environmental impact on the neighborhood.

Yours truly,

Ruth Ellen Treisman,
Neighborhood resident, property owner and business owner

Fay, Natalie

From: Kleinbaum, Kathy
Sent: Wednesday, March 15, 2006 11:09 AM
To: Fay, Natalie
Subject: FW: MacArthur BART

FYI.

Kathy Kleinbaum
City of Oakland
CEDA, Redevelopment Division
250 Frank Ogawa Plaza, Suite 5313
Oakland, CA 94612
Ph: (510) 238-7185
Fax: (510) 238-3691
** Please note change in phone number effective 12/19/05**

From: Hugh Louch [mailto:hlouch@gmail.com]
Sent: Wednesday, March 15, 2006 10:54 AM
To: Melissa Buss; Deborah Castles; Kleinbaum, Kathy
Subject: MacArthur BART

I just wanted to let you know that I and at least one or two other people who support the MacArthur BART project in general will be at the meeting today.

One thing that occurred to a couple of us that might help address community concerns would be to do something like an area specific plan for a half mile around the station. This plan could address community concerns that may not be captured as part of the EIR. I am assuming that the EIR will focus primarily on issues on the property itself (such as soils) or issues directly generated by the project (such as traffic).

An area plan could knit together the work that has been done on the Telegraph streetscape improvements, 40th Street access improvements, and the redevelopment plan into a cohesive vision for the neighborhood. It could also address some of the issues that are most significant to the surrounding community, such as crime, the motels along MacArthur, and others that would not be captured by the EIR. It might be able to show how the project could benefit some of these - e.g., by making the motel properties more valuable for density housing. Primarily, I think it could serve as a means for the community to articulate a vision of what they want in the neighborhood as a whole and identify strategies to make this happen.

Since this has come up in discussions, I wanted to let you know that some of these issues may be raised during the meeting today. I know you'll be getting a fair number of people opposed to the towers out and it seems like this might be a low-cost way to get additional people on board.

See you this evening.
-Hugh

North Oakland Residents Against MacArthur Towers (NORAMT)
Factors to consider in the EIR for the
MacArthur Transit Village Project
Case number: ER060004

Land Use

In the City's General Plan, the surrounding community is to be zoned R-50 or lower, in accordance with actual use. The Telegraph Avenue corridor has been revitalized in the Temescal neighborhood (45-51st Sts.) through thriving small business that have a distinctly Oakland flavor. There are the beginnings of this in the area close to BART – the Café Eritrea d'Afrique, the Abyssinian Market, the Korean restaurants, and the church on the corner of 38th and Telegraph which is being converted into an artists' studio and performance space. We want the development and enhancement of the neighborhood along this corridor to continue in the current organic manner that emphasizes development along several blocks and reflects the community.

The project is entirely oversized for this area. The proposed towers are a monolith which disrupts the neighborhood experience. It is a vertical "community" on 7 acres which is planned to have a population equivalent to 6 or 7 blocks of the existing communities. Perhaps it would be more appropriate downtown or uptown, but the "uptown" development has been restricted to 6 stories. Why should there be two towers more than three times that height in this area?

In the over twenty years of discussion about the MacArthur BART space, stress has always been put on the inclusion of the west side of the station in any development. This development cuts off the people and properties west of the station. Further, the towers may discourage development to the west side because of their imposing size and the literal shadow they will cast, or it may encourage further develop to match the large scale of the towers, which is not in keeping with the neighborhood that present homeowners have bought into.

The abrogation of public BART parking for private parking for the residents and shoppers will have a severe impact on the residents of the neighborhood. Parking permits only partly alleviate this problem in terms of tickets. It does not guarantee that present residents will be able to find parking with half a block of their houses, which is, for the many people with small children, a real issue.

Public Policy

The CPC and the various groups that existed before it have come up with many plans for the use of this space. This project resembles none of them, although it is similar to a Space Needle plan presented by Seattle developers which was rejected by the community. As it was then, it is now. This project does not fit with the existing fabric of the neighborhood.

We ask for respect for those who have a vested interest in this community, the homeowners and long-term renters who have over the years fought many battles to keep the neighborhood from degradation by fast food restaurants which inspired the City to pass new regulations to halt fast food proliferation. Homeowners have bought in this neighborhood because it is that, a place where one sees and knows ones neighbors and certain communal values are expressed. This project will have the impact of a de facto eminent domain, as we will lose what we bought into, both in aesthetic and quality of life factors.

There is also the question of tax implications. Since the residences will be built on BART land, do the taxes go to BART, or to Oakland, or to the County. How does the immediate neighborhood benefit in terms of tax revenue?

Population, Employment and Housing
The population of the neighborhood will be increased dramatically, in such a way as may put a strain on utilities, police services and public schools.

The increased traffic will also require greater maintenance of Telegraph and the other surrounding streets, which already have significant pothole problems and are in dire need of repair.

What contingency plans will be in place in event of power outages in the high-rise condominiums, either through the rolling brown/black-outs of the power shortage crisis, or the several black outs caused by failures at substations in recent memory?

Since the project is overwhelmingly residential, there seem to be few long-term employment possibilities. What guarantees are there that the construction jobs will be Oakland residents?

Given the glut of condominium constructions and conversions in Oakland, what is the analysis of the possibility of full occupancy? Since the affordable housing sections of the plan will be in buildings separate from the market-rate development, how will the project avoid ghettoizing the affordable housing residents?

Transportation, Circulation and Parking
While the project is being proposed as a transit hub enhancement, it takes away public transit (BART) oriented parking and replaces it with private parking for residents and shoppers. The commute parking will move into the surrounding neighborhood, which is already impacted. Is there any guarantee that the number of frustrated BART riders who will simply drive to San Francisco rather than deal with parking problems is outweighed by the residents of the new housing who will take BART?

While present BART parkers are long term, the proposal for the parking spaces for retail use are short term which will increase traffic and circulation problems throughout the day. There will be an increase in car traffic.

The configuration of the traffic patterns does not allow entrance from the west. The Martin Luther King side of the BART station is left with no improvements while the developer picks the low-hanging fruit of a large plot of land to maximize their profits with little concern for the existing neighborhood or how the development fits into the existing neighborhood fabric.

Increased traffic on Telegraph will make turning North from the BART station onto Telegraph in an automobile from Apgar, 39th and 40th extremely difficult. It will also make turning South onto Telegraph from 37th, 38th, and 40th almost impossible. The plan is for people coming south on Telegraph to cross traffic and enter the site in the middle of the block at Apgar and 39th St., but it is only shown in the rendering that has no basis in reality. This is hazardous at present and will be more so with the proposed increased chaotic circulation. It will be a gridlock for cars that are waiting to make a left turn and it will be increasingly hazardous for pedestrians and bicycles. It reminds us of the Emeryville traffic jam near IKEA and now circuitous route one must make to get to Trader Joe's and the Powell St. shops, as well as the mysterious gridlock at various intersections along 40th St. in Emeryville.

Aside from the gridlock for cars, the proposal creates a situation that is increasingly pedestrian unfriendly and almost impossible for bicycles. The plan has done little or nothing to improve pedestrian access to the station or the ability to access the proposed retail with the present approach. In a neighborhood that is generally friendly to pedestrians and bicycles, it prioritizes cars coming to the BART station, although not to use BART. It is a lose-lose situation.

There is also the issue of the new intersection at the BART station, approximately where there is a pedestrian stair from the parking lot and the change of the existing road that is presently used predominately by bus transport. The new plan intends to the change the roadway into a two way from the new intersection to 40th Street to allow motorists to exit the new retail/kiss and ride area. If it remains a two lane road, with one lane in either direction, there will be gridlock whenever a bus is parked or a driver is letting off a passenger, and no one can pass. If it is made a three or four lane road, it becomes a monstrous obstacle to the non-motorist.

The existing bus transport road that also provides pedestrian access from the west at MacArthur has not been improved in the slightest but has instead been further impacted in a negative way. There has been no crosswalk at the MacArthur intersection proposed or considered to serve patrons from the western area of District 3. The sidewalk/road, which is already poorly designed, is also to be sandwiched between the existing freeway and the proposed dominating 20 and 22 story residence towers and the raised area between the towers. This only makes an ugly, uninviting pedestrian way even more daunting. That this area is also where there are two motels that are known to have prostitutes in front of them just adds to the problem. There appears to be no attempt to provide or promote pedestrian travel along this important access corridor. Is the assumption that only the people in the condominiums will be the users of BART and that the residents who presently choose to live in this area because its convenience to BART should not be considered? Will students who take BART to MacArthur from other areas of Oakland to walk to Oakland Tech be risking their lives every day?

Air Quality

The increase in automobile traffic, despite smog checks, will increase air pollution in the area. Residents of the new project will have to use their cars to get groceries, since there is no retail outlet for groceries nor a supermarket in the plan. They will have to drive their children to school, if they have children, especially since the area will be so unfriendly to pedestrians. As there are few basic services in the area, they will be using their cars in the evening and on weekends, adding to the traffic and pollution.

Noise

MacArthur BART is next to the freeway and the MacArthur maze, one of the most congested highway interchanges in the country, and therefore noisiest to nearby residents. The two towers as presently planned are not using exterior surfaces to deflect noise, and may well make the noise problem greater for those on the ML King (west) side of the project.

There needs to be a serious analysis of the impact of the noise that bounces off the towers. Since there is a plan for open gathering space in front of the towers, this use will be impacted by the high noise level (as well as the afternoon shadow.)

Hydrology and Water Quality
Geology and Soils

Residents are not expert in these areas. However, we do request a study of where the creek that lies beneath Mosswood Park flows.

Public Health and Safety

This project leaves in place two motels in an area which is known for prostitution and drug-dealing. As a previous seemingly-viable project by LaSalle was abandoned because of the presence of prostitutes on the street at ten in the morning in front of the motels, we as residents wonder whether the influx of presumably wealthy condominium owners will magically decrease crime or whether they might become the targets of it. Since these new residents will be loathe to being accosted, what provisions are being made to increase police surveillance and activity in the area? Is the Oakland Police Department which is understaffed at present signing on to increase their vigilance? How many officers will they commit to this area when it has a seven-fold increase in population?

The other safety issue is that of the transportation gridlock and the lack of pedestrian friendly design. The probability of increased pedestrian accidents seems likely as is the likelihood of car accidents.

Cultural Resources

This project does not seem to be in agreement with the small neighborhood, Oakland feel of the neighborhood in which present homeowners and renters have chosen to live. The two towers are appropriate to an urban area with many attractions, whereas residents live here because of the availability of houses with yards, gardens and the possibility of knowing one's neighbors, as well as the ability to walk to BART. There are few attractions in the W. MacArthur / Telegraph neighborhood other than fast food, the Korean barbecues and motels. Unfortunately, many of the essential services we require are on Piedmont Ave, Rockridge or Emeryville, which will necessitate the new residents using cars to pass through our neighborhood to get to their destinations.

Aesthetic Resources
The project is not aesthetically in keeping with the neighborhood. It is not even an interesting new design. If it is necessary to build two huge towers, they should at least be architecturally innovative or reflective of the architectural style of the surrounding housing stock.

Shade and Shadow Analysis
It is our understanding that the 20+ story condominium towers will darken the BART plaza after noon, making it unlikely that people will gather to socialize. Instead people will probably pass through as quickly as possible, providing the perception of a ghost town. The towers will also cast a shadow on the west side of the project in the morning hours, having a direct effect on the community garden on ML King and 38th and residences for several blocks west.

Because the taller of the two towers is designed to be on the north side, this will mean that no solar panels will be possible for people north of the project. There are, in fact, several homes with solar panels in the neighborhood that could be impacted by the presence of these towers.

This is an aspect of the EIR that needs to be taken seriously.

Wind Analysis
As the project is proposed, the two towers separated from each other will create two wind tunnels. One will be created by the gap between the two towers, and another will be created in back of the towers where there will be a vacuum and then in front of the towers there will be a high pressure area. These wind tunnels effects, along with the noise from the freeway, will make any open public space unusable as a gathering space.

The present Kaiser buildings on West MacArthur several blocks east already create a wind tunnel which is often unpleasant. With the addition of these buildings, walking and biking in the neighborhood will be arduous, rather than the normal, convenient mode of transportation which they now are. This project which proposes to reduce reliance on cars may well, inadvertently, force residents into their cars for short journeys which are now made on foot or by bike.

We ask that there be a detailed analysis of the wind tunnel effects of the buildings, especially as they will affect the possibility of pedestrian transit and possible community gatherings.

Cumulative Impacts
Although we recognize the value of and have long sought for a development in our neighborhood of a transit village at the MacArthur BART station, the cumulative impact of increased car traffic in inconvenient patterns, wind tunnel and noise problems, and the strains on our beleaguered city services for police and utilities makes this project problematical. The scale of the residential housing is completely out of scale with the surrounding area and inimical to increased use of the BART station by non-residents.

All of our comments have been made with the assumption that the proposed project will in fact be financially viable. As there is no clear plan for the retail sector, we ask that you consider the possibility that it will not be entirely successful, as has happened at the Fruitvale BART station. Instead of being left with empty buildings that are at least to scale with the community, we will be condemned to live on dark, noisy, windy streets. The looming towers may have to go for whatever rent they can get, or Section 8 housing. Then the overcrowding will not be with upscale condo owners, but with people trapped in apartments that have windows that will not open. The height of a building does not guarantee its prosperity. At the time that the presentation was made at Mosswood Park, most of France was under curfew because of the response to disenfranchisement by the residents of similarly tall buildings, people who begged to have them torn down and be allowed to live in the horizontal communities that we now have.

We ask that you consider the appropriate, sustainable use of land in Oakland and the interests of those who already live here.

For the community,

Deirdre Snyder, 420 37th St. Oakland

Lena Robinson, 4405 West St. Oakland

Ron Bishop, 407 45th St. Oakland

Elin Hansen, 488 38th St, Oakland

Ed Cullen, 38884 Webster St., Oakland

Bob Brokl, 636 59th St. Oakland

Natalie Fay
Case Planner for MacArthur Transit Village Project
City of Oakland

March 15, 2006

Dear Natalie Fay,

The following is a copy of some material that I wrote and initially sent to my attorney, Charles Toombs, but I would like to send it directly to you today, March 15, 2006, as well. Please understand that I realize that the project may or may not happen, but I need to get my objections on record in the event that it does happen.

I have also thought of some other arguments, and specific needs since writing the original letter. I realize that the reason for any transit village is to encourage people to be less car-dependent and more public-transit oriented, which I would normally applaud, but this particular situation is a little different from the ones in cities like New York and Paris, where there are numerous transit points, both subway (metro) stops and bus stops that serve people from all walks of life. Here in the Bay Area, and particularly in Oakland, there are only a few BART stations, with infrequent and inconvenient bus service. Therefore, many people who live a mile away from a BART station will naturally drive to the station and park in the parking lot. This is unlikely to change quickly and easily, if at all. My complaint about the idea of 800 additional living units is that there will most likely be more than 800 additional cars, at least the same number of cars of BART commuters that there are currently, and possibly a lot more cars caused by roommates, visitors, and family members of the occupants of the new apartments, as well as patrons and customers of the businesses that are also planned. The parking situation will be dreadful as a result.

My other concern not mentioned specifically in the original letter is that my building is connected to the building next door by a single roof. The previous owner and I created a recorded easement to allow either of us to repair the roof as needed, and to walk on any part of it, if necessary. This roof protects the side of the two properties from water damage, trash buildup, and any other situation caused by having two adjacent but not adjoining walls. If the plan goes forward in such a way as to raze the next-door building, it will become necessary to cut through the roof, and quite possibly create some problems for the exterior siding and roof edges of my building. I would like to request that the developers take some responsibility for any repairs that may need to be done, and for some method that I can be able to maintain that side (and all sides) of my building in the future. This is another reason that I am unhappy with the idea of any buildings being built in close proximity to mine. It makes any maintenance or repair more difficult, if not impossible!

The rest of my concerns are expressed in the following letter (see next page):

Charles E. Toombs
Law Offices of McInerney & Dillon
1999 Harrison Street - Suite 1700
Oakland, CA 94612-4700

March 13, 2006

Dear Charles,

Here are my thoughts about the MacArthur Transit Village project:

The most obvious and clearly maddening part of the project is the apparent lack of planning and understanding of the needs of the neighborhood in which it is to be a part. By this I mean the idea of reducing the BART parking spaces from 600 to 300 spaces, knowing that parking in the immediate area is already negatively impacted by people parking in the neighborhoods when commuters cannot find parking in the BART parking lot. The so-called planners seem to think that adding more restrictive parking to the mix will help; it will merely cause more problems, as the commuters search frantically for a place to put their cars on the way to work. I live about six blocks from the BART station, and have a number of friends and neighbors who are angry about this idea, as am I. This is a clear indication of how little these planners truly understand the needs of the neighborhood, and of the citizens of Oakland.

The second part of the lack of planning is the idea that the current businesses and property owners in the actual affected area (and I include my building) have no right to complain about the plans which will certainly affect them negatively in two ways. It will affect them temporarily during the pre-planning, planning and construction phases, either by eliminating their businesses completely (if their buildings are torn down), or by creating so much noise and dirt in close proximity to the business (or in my case any apartments that I may wish to rent)that "business as usual" becomes impossible. I called both the City of Oakland contact (Kathy Kleinbaum) and the BART contact (Deborah Castles), and expressed my outrage that the plan was conceived with so little regard for current property and business owners, and was told, essentially, that my needs were not a priority, and that I "should have known that this project was going to happen" before I bought the building. I did not know, nor would most reasonable people think to ask if a BART station or parking lot, which appeared to be a permanent fixture, would be changing at any time in the near future. I found out about the possible plans by calling BART to see if I could rent or use the area of trees and plants between the parking lot and my property to make a public park, with picnic tables and walkways, which I would have maintained, and was told that the City of Oakland and BART would be doing a project that would include that area. This was in 1999, and they have not yet needed to use it; I could have been using it all this time!!

The most upsetting part of the apparent lack of planning is actually after the project is completed. Instead of planning for the open space to coincide with the current reality of openness around my three-story building, which is the only building taller than one story in the area under discussion, they plan to surround my building with five-story buildings on the two sides not facing a busy street, and essentially place my beautiful jewel, on which I have spent a great deal of time, energy, and money to restore and beautify, in a dark and unpleasant hole, cutting off the sunlight, air, views, and sense of space that is currently available. It seems almost painfully obvious that the planners, who seem to think they are entitled to do whatever they want to the neighborhood and the current occupants and business owners, have not chosen to consider placing the wide public thoroughfare and public gardens around my building, where it might mitigate some of the difficulties I am facing. Since the plan seems to call for razing all of the other structures except my building, it seems obvious that my needs and wishes could certainly be taken into account, and the planning could include reasonable sensitivity to the only building left standing.

My mission from the beginning, and the reason that I bought the building at 505-40th Street, has been to create a community center of sorts, with live jazz, artwork, a small cafe and deli, perhaps a corner store with the kinds of food items that people leaving work and returning home would want, such as bread, milk and produce, but with an emphasis on quality (such as fresh baked goods). I envisioned a sort of mini-Market Hall, smaller and not as upscale as the one in Rockridge, but appealing to a group of people who value freshness and quality, and who like music and art and a sense of community. This can still be accomplished, but it will be almost impossible to interest tenants in staying in a building that is not only a few feet away from a construction zone (and right outside their windows, for the most part), but who will soon be living in a dark, cold, cave-like atmosphere instead of having a beautiful, sunny, warm, airy vista to look at daily.
Therefore, if the project is to move forward, I would like to ask for three specific things:

1. Rethink the parking situation, and add rather than subtract BART parking, as well as adding adequate parking for the residents and customers of the new (and old) mixed-use properties.

2. Compensate my lost rental income during the periods of loss; this may include (although not be limited to) the period for the nine months prior to any actual construction (as my leases are for one- year periods), as well as the period during and immediately after the construction itself, until it is clear that it no longer impacts on my ability to attract good tenants.

3. Plan the structures so that the public space, roadway, walkway, etc., are located around my building, so that the tallness of the five-story buildings is somewhat less of a problem, and redesign the buildings, so that the tallest parts are somewhat removed again, by creating a sort of stair-step pattern, with the lowest part (perhaps one story) immediately closest to the public space around my property, and then gradually getting taller as the distance increases.
These three factors would greatly reduce my opposition to the project as it is currently presented, and would probably be better for the neighborhood as a whole.
Thank you for your kind attention to these matters of the environmental impact on the neighborhood.

Yours truly,

Ruth Ellen Treisman,
Neighborhood resident, property owner (505-40th St.) and business owner

Fay, Natalie

F 1:	Lee [caleesf@yahoo.com]
S .:	Tuesday, March 14, 2006 4:20 PM
To:	nfay@oaklandnet.com
Subject:	Proposed Condos at MacArthur BART

I want to express my views on the proposed development at the MacArthur BART station. I have lived in Oakland for 27 years, the last 15 of those years as a home-owner in the Temescal neighborhood. I am usually pro-growth and development. It makes sense for Oakland to evolve and change with the demands of its citizens. However, this development goes too far.

Twenty-two and twenty story high-rises in the Temescal neighborhood are unacceptable. It is totally out of scale and scope for this area of Oakland. This type of high-rise condo unit would be well suited around Lake Merrit or downtown, but not in the Temescal neighborhood. Look at the condos proposed for the corner of 51st and Telegraph for the right scale. A 65 foot building is reasonable. Anything larger is not.

This is my opinion for what it is worth.

I have one question. Who will directly financially benefit from this project? BART? Who is the owner and developer of this project? Thanks for reading my message.

Lee Edwards
375 50th Street

Fay, Natalie

From: melissa clinton [melissa_clinton_99@yahoo.com]

Sent: Tuesday, March 14, 2006 2:18 PM

To: nfay@oaklandnet.com

Subject: The MacArthur BART transit village development

Natalie Fay, Sr. Transportation Planner
CEDA
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Dear Ms. Fay,

I am writing regarding the seven-acre transit village that is being planned for the MacArthur BART area. I am a local North Oakland resident and am **strongly against** this major development for several reasons:

There is a great deal of housing development that is soon going to take place in the Temescal district of Oakland, near 51st and Telegraph.

Another huge development area along Telegraph Avenue and 40th streets, with 800 condominium units and 2 20- story highrises will cause major congestion in the area. The automobile traffic will be horrendous. This is California, too many people still rely on using cars, even if they live at a BART station.

The fact that 1/2 of the current parking at MacArthur BART will be taken away is devastating. There currently isn't enough parking! If one doesn't arrive at the parking lot before 7:00 am, one is forced to try to find parking in the neighborhood. There have been a great deal of muggings and crime in the streets in this area, so the worse off for people who have to walk a long distance to their car.

I hear from people often that the main reason they refuse to take BART is lack of parking at the BART stations. Given the fact that BART is now charging for parking, why would they take away parking and the fees, when they could extend their parking, thus getting more money from the parking fees and more riders?

This development project is enormous and will have too much of an impact on the Temescal neighborhood. I find it bizarre that the City of Oakland chose this location as another similar to the Fruitvale District transit village.

If this project is approved, this will give my husband and I more impetus to move away from Oakland. It is a disappointment already that there aren't enough police on the streets for combatting escalating crime. Bringing new housing and congestion of such proportion is not good for the City or for the thousands of future residents that will move into the Temescal district.

I will be happy to sign a petition against this outlandish development project.

Sincerely,

Melissa Clinton
Webster Street
)akland

Alameda County Child Care Planning Council

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w. .gov.org/childcare/

March 15, 2006

Natalie Fay
Senior Transportation Planner
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Subject: MacArthur Transit Village Project Draft Environmental Impact Report (EIR)

Dear Natalie:

This letter is to support the continued consideration of incorporating a child care center at the MacArthur BART Transit Village. As we understand it, the schematic currently includes a community space of 5,000 square feet with specific use to be determined.

We believe that a child care center would have a viable client base with children from the surrounding neighborhood, bus and BART riders, and staff of major local employers such as Kaiser and Summit. It would be helpful to have the EIR address the projected number of families with young children who would be associated with the Transit Village, those:

- Projected to live in the Transit Village;
- Estimated to utilize MacArthur BART or other public transit connections;
- Who live in the surrounding neighborhood;
- And those employed by major surrounding employers such as Kaiser and Sutter hospitals.

We know that this information would be an unusual component of an EIR, but believe it could help support the development of appropriate economic development supports such as child care. We are aware of several residential EIRs which have addressed child care.

At the community level, we believe that child care located near transportation hubs can help build community links, reduce car traffic congestion and provide a critical support to local families. As the Transit Village project managers have informally recognized, providing the licensing required outdoor play space for a center at this development is necessary and challenging to conceptualize in the center's current potential location. We are researching models of other centers in dense development to determine what design strategies could facilitate the inclusion of outdoor play space and support a viable center and the potential for waivers. We are also very interested in reviewing the EIR's assessment of air quality at different locations within the development with respect to considering a child care site.

Thank you for your consideration.

Sincerely,

Ellen Dektar
CC: Jane Brunner, City Council; Val Menotti, BART; Kathy Kleinbaum, CEDA

March 8, 2006

Natalie Fay, Senior Transportation Planner
City of Oakland
Community and Economic Development Agency
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Subject: NOP Comments on MacArthur Transit Village Project

Dear Ms. Fay:

The Oakland Dog Owners Group (O'DOG) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the MacArthur Transit Village Project ("project"), which would construct approximately 800 residential units. We would like the DEIR to discuss the issues raised in this letter regarding recreational space for future residents of this project who will have dogs as pets. We would also like the DEIR to address the potential impacts on existing users of off-leash parks and recreational space from new residents who have dogs. If there is a potentially significant impact, we recommend that the DEIR recommend including feasible mitigation measures.

Off-leash recreation offers exercise for people and their dogs. The daily dog walk gives people a chance to exercise, to be out in nature, to meet with others and to create a community. Dog walkers find friends at off-leash parks; they also monitor each other and spread the word about courtesy, clean-up, and control. A strong argument in favor of creating off-leash spaces is that availability of legal off-leash areas cuts down on illegal off-leash use, making dog-averse people more comfortable in public spaces because there is less chance of encountering off-leash dogs in unauthorized places. It would also promote pet behavioral socialization, thereby making dogs safer around other dogs and people.

Oakland residents who have dogs also have unique recreational needs that regular park space cannot always meet. Dogs require daily exercise to maintain their physical health and responsible guardians (dog owners) will seek to maintain their pets' health. As Oakland is considered an urban environment, it is unlikely that backyard space can adequately meet the exercise needs of all dogs and this project does not appear to offer private space for residents. Further, some residents with physical disabilities who have dogs may be unable to walk far enough or maintain a walking pace that provides their dogs with enough exercise for the good health of their dogs. Dedicated off-leash dog space in municipal parks is a critical service for Oakland residents who have and care for dogs.

Overall, Oakland does a poor job in meeting the recreational service standards of its residents with dogs. According to the *2002 U.S. Pet Ownership and Demographic Sourcebook*,[1] the average number of households that have dogs is 36.1% and, overall, there are 0.58 dogs per household. This means that there are over 87,000 dogs in Oakland. Out of 150,790 households in

[1] American Veterinary Medical Association (2002).

Oakland, 54,435 households have dogs. Applying Oakland's average household size of 2.60 from the Census 2000 data, there are 141,139 Oakland residents who live in a household with a dog. This means that 34.2% of Oakland's existing population (141,139 ÷ 412,318)[2] lives in a household with a dog and should have access to recreational space that meets their daily needs.

Exacerbating the access problems is Oakland Municipal Code 6.04.080 that states all but five of Oakland's 99 municipal parks are off-limits to dogs[3] – even when they are leashed and under the control of their guardians. Hardy Park is Oakland's only dedicated recreation area for residents with dogs and offers less than one acre of dog and dog owner space. This represents less than 0.1% out of 2,257 acres of Oakland park space.[4] Even when considering the Joaquin Miller and Dimond parks that allow leashed only access which is a lower quality recreational service and not geographically accessible to all Oakland residents, the total acreage open to dog owning residents is well under what it should be. By contrast, all three of the Piedmont's parks allow off-leash and on-leash access for dogs. There is not enough dedicated space for Oakland residents with dogs and this project will make the situation worse for existing residents unless it provides adequate off-leash space for new residents and their dogs.

We recommend that the DEIR address the issue of service standards for a portion of the project's population that has unique and important recreational access needs. When considering OSCAR's service standard of 4 acres of local-serving parks per 1,000 residents, Oakland would need an additional 562 acres of off-leash recreational space to serve its existing residents that have dogs. As acknowledged in other EIRs, the City falls far short of its service standard goal for residents overall with an existing level of just 1.33 acres per 1,000 residents. In the case of access for Oakland residents with dogs, we recommend applying an even more reasonable service standard of 1 off-leash acre per 1,000 residents. This would leave the City of Oakland approximately 138 acres below its own service standard goal for its existing population. The construction of this project without providing off-leash recreational space could further reduce the service standard for existing residents using Hardy Dog Park and cause or accelerate physical deterioration of this vital park and recreational area. This should be considered a potentially significant impact in the DEIR and mitigation should be required as part of the project's conditions of approval.

We recommend that the DEIR identify the number of off-leash park acres that would be needed if the project is approved. The California Civil Code 1360.5 (Davis-Sterling Act) limits pet restrictions on separate interests within a common interest development and states that project residents could have at least one pet. We recommend that the DEIR identify a conservative estimate of project residents who have dogs given this law and the pet ownership statistics identified above. We also recommend that the DEIR compared this figure to OSCAR standards for those residents and identify the amount of off-leash park space that would be necessary to meet the recreational needs of project residents. OAWG recognizes that providing off-leash dog space on the project site may not be feasible given the project's objectives of maximizing housing densities and we recommend that the DEIR identify alternative sites on existing municipal park land and other public lands that could reasonably accommodate off-

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[2] Oakland population figure for 2005 from the California Department of Finance.
[3] The City's website does not include Knowland, Leona or Glen Daniel/King Estate on its list of parks.
[4] Total Oakland park acreage identified in the Draft EIR for the Oak to Ninth Project.

leash recreational areas. In particular, Mosswood Park would be one ideal site given its large area, the presence of adjacent major arterials and a freeway, its proximate location to the project site and the limited number of residences immediately adjacent to the park. The provision of off-site dog parks is a feasible mitigation measure that could reduce this potentially significant impact to less-than-significant.

While it is critical to include dedicated space for dogs as part of this project, it is also important to permit dogs to be walked on-leash on all park paths in the City and in areas of the project that would not have conflicting uses. This will enhance livability in Oakland and increase the project's appeal for future residents. Further, any mitigation measures considered infeasible should be identified as well as the justification for that determination. If you have any questions about these comments, please feel free to contact me at (510) 530-5030.

Sincerely,

Emily Rosenberg

Emily Rosenberg
Co Founder O'DOG
Oakland Dog Owners Group

cc. Oakland Parks and Recreation Advisory Commission
Director Audree Jones-Taylor
California Dog Owner's Group (CalDOG)
Oakland Animal Welfare Group (OAWG)

EAST BAY
MUNICIPAL UTILITY DISTRICT

March 8, 2006

Natalie Fay, Senior Transportation Planner
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Notice of Preparation of a Draft Environmental Impact Report - MacArthur Transit Village Project - Oakland

Dear Ms. Fay:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of Draft Environmental Impact Report (EIR) for the MacArthur Transit Village Project located in the City of Oakland. EBMUD has the following comments.

WATER SERVICE

Pursuant to Section 15083.5 of the California Environmental Quality Act Guidelines, and Section 10910-10915 of the California Water Code, a Water Supply Assessment (WSA) will be required, as the entire scope of the project includes at least 500 dwelling units. Please submit a written request to EBMUD to prepare a WSA. Preparation of the WSA will require that EBMUD contact the project sponsor to gather data and estimates of future water demands for the project area. Please be aware that the WSA can take up to 90 days to complete from the day the request was received.

EBMUD's Central Pressure Zone, with a service elevation between 0 and 100 feet and/or Aqueduct Pressure Zone, with a service elevation between 100 and 200 feet, will serve the proposed development. Main extensions, at the project sponsor's expense, will be required to serve the proposed development. Off-site pipeline improvements, also at the project sponsor's expense, may be required to meet domestic demands and fire flow requirements set by the local fire department. Off-site pipeline improvements include, but are not limited to, replacement of existing water mains to the project site. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the proposed development. Engineering and installation of water mains, services and off-site pipeline improvements requires substantial lead-time, which should be provided for in the project sponsor's development schedule.

EBMUD owns and operates 6-inch water mains located in 39th Street and Apgar Street that provide service to EBMUD customers in the area. The integrity of these pipelines must be maintained at all times. Any proposed construction activity in 39th Street and Apgar Street needs to be coordinated with EBMUD and may require relocation of the water mains, at the project sponsor's expense.

The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste, or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. EBMUD will not install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants.

The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater. EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed, and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation or EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant is anticipated to have adequate dry weather capacity to treat the proposed wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Environmental Services Division. However, the City of Oakland's Infiltration/Inflow (I/I) Correction Program set a maximum allowable peak wastewater flow from each subbasin within the City and EBMUD agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. EBMUD prohibits discharge of wastewater flows above the allocated peak flow for a subbasin because conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above this agreed limit. The developer for this project needs to confirm with the City of Oakland Public Works Department that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. The projected peak wet weather

wastewater flows from this project need to be determined to assess the available capacity within the subbasin and confirmation included in the environmental documentation. Suggested language to include in the EIR is as follows: "The City of Oakland Public Works Department has confirmed that there is available wastewater capacity within Subbasin *(insert subbasin number here)* that is reserved for this project."

In general, the project should address the replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in I/I. Please include a provision to control or reduce the amount of I/I in the environmental documentation for this project. The main concern is the increase in total wet weather flows, which could have an adverse impact if the flows are greater than the maximum allowable flows from this subbasin.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD would request that the City of Oakland include in its conditions of approval a requirement that the project sponsor comply with the Landscape Water Conservation Section, Article 10 Chapter 7 of the Oakland Municipal Code. EBMUD staff would appreciate the opportunity to meet with the project sponsor to discuss water conservation programs and best management practices applicable to the integrated projects. A key objective of this discussion will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the project.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:JAJ:sb
sb06_061.doc

cc: MacArthur Transit Village Community Partners, LLC

ARF530
PI-CEQA

FILE COPY

From: John Gatewood [mailto:johnnyg@california.com]
Sent: Thursday, February 23, 2006 10:42 PM
To: kkleinbaum@oaklandnet.com
Cc: deborah@aegisrealty.com
Subject: MacArthur Transit Village EIR Scoping

Dear Ms. Kleinbaum,

I attended the MacArthur BART Citizen Planning Committee meeting Wednesday night. I believe the EIR for this project must contain an economic analysis of the viability of the proposed two towers of this project.

My concern is that these two towers are not economically viable. For the City and the residents to make an informed decision about this project, there needs to to be in a public document what financial analyses have been undertaken that show these towers will be successful and not a blight in the neighborhood. I think this would fall under the Public Policy and Cumulative Impact components of the EIR.

Any analysis should include, but not be limited to:
1) Who is the target market for these condos?
2) What kind of market research has been done to show that these condos are desirable?
- they are hi-rise, hi-density condos in a residential neighborhood.
- the neighborhood has none of the urban amenities that a person interested in living in a hi-rise, hi-density would want nearby.
- they are next door to one of the busiest, if not the busiest freeway interchange in Northern California.
3) How are these condos going to be priced?
4) When these condos go online how many other condos will be going online in Oakland at that time and how will this affect the marketability of these tower condos?
5) What will be in the CCR's for this project?
- restrictions on number of units converting to rental?
- restrictions on balcony usage?
6) What are the longer term appreciation estimates for these condos?

My concern is that these units are not going to sell as quickly and for as much as the development team hopes. The result being a failed project. I define failure as:
1) Units selling so slowly that the development team decides to market the tower units as rentals instead of condos.
2) Units not appreciating in value or even losing value so that original owners, rather than selling their units when they leave, rent them out instead.
My experience having grown up in New York is that when projects as dense as this become rentals they tend to decline quickly and age badly.

My hope is that whatever is built on this site is a success. The only thing worse than the existing hole in the ground would be a failed project in our neighborhood and I am far from convinced that there is a market for this type of development in this kind of neighborhood.

Sincerely,

John Gatewood
360 50th St.
Oakland, CA 94609

-----Original Message-----
From: swbelcher@msn.com [mailto:swbelcher@msn.com]
Sent: Thursday, February 23, 2006 3:50 PM
To: nfay@oaklandnet.com
Subject: input on scoping

I don't know if you are aware of this, but the transit station proposal is in the flight path of the helicopters servicing children's hospital. There is apparently a route bearing approximately northwest, southeast, from and to Contra Costa County which I can attest is used sometimes several times a day. The route flies over, I believe, the transit village site. You probably should check their use permit for conditions. I think that the contractors are supposed to fly above 500 feet but my observation is that standard is routinely violated, particularly at night. Steve Belcher, 5333 Locksley Ave.

-----Original Message-----
From: Phyllis Tait [mailto:pmtait@gmail.com]
Sent: Wednesday, March 01, 2006 6:00 PM
To: nfay@oaklandnet.com
Subject: MacArthur BART parking

Hello Ms. Fay,

I recently read an article about proposals for the newMacArthur Bart area - a "transit village". It all sounds good, but I have two concerns.

1. There are several substantial old houses in the area (some admittedly in bad repair), and I think that it would be a shame to see them demolished. We need all the architecture that gives the Temescal neighborhood its unique flavor.

2. The reduction in parking spaces. I thought we were tryning to increase public use of BART! I would think that a reduction in spaces would discourage commuters. I live in the neighborhood and am impacted by the parking situation as is. I'm probably outside the 1/4 mile radius, but people still park on my street. I expect this problem to get worse, AND I sure do NOT want that 2-hour residential permit thing. My neighborhood looked into that a few years ago, since we are also impacted by the Oakland Tech Highschool, and discovered that it has more downs than ups. I suspect that we would all constantly be getting parking tickets when guests or gardeners or mothers wanted to visit for more than 2 hours (the length of a visitor pass).

I would like to see plans for more, not less parking at the station. Thanks,

Phyllis Tait

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Fay, Natalie

From: Kleinbaum, Kathy
Sent: Thursday, March 16, 2006 9:24 AM
To: 'Lynette Dias'; Fay, Natalie
Subject: FW: MacArthur Transit Village EIR Scope

Another comment.

Kathy Kleinbaum
City of Oakland
CEDA, Redevelopment Division
250 Frank Ogawa Plaza, Suite 5313
Oakland, CA 94612
Ph: (510) 238-7185
Fax: (510) 238-3691
** Please note change in phone number effective 12/19/05**

From: Stanley, Jennifer
Sent: Thursday, March 16, 2006 9:20 AM
To: Kleinbaum, Kathy
Cc: Patton, Jason
Subject: MacArthur Transit Village EIR Scope

Hi Kathy,

If it's not too late, I would like to suggest that the following be studied during the MacArthur EIR.

One of the main objectives of any transit village is to convert car trips to other modes. Yet conventional modeling techniques that will be used to evaluate traffic impacts for the EIR will assume that the transit village failed to meet that objective by requiring a projection of future year conditions that assumes a certain percentage growth in auto trips. Therefore, I would like to ask that the EIR also look at evaluating the impacts assuming that the transit village succeeded in meeting its objectives. This could also include ped/bike safety impacts resulting from a decrease in auto travel.

I was thrilled to hear Commissioner Boxer suggest unbundling parking in the residential component. I sense the developers don't think this will help their bottom line, but I'm hoping it can also be evaluated.

Let me know if you need this to be submitted more "formally." Thanks for your work on this exciting project! Really!

Jennifer Stanley
Bicycle and Pedestrian Facilities Coordinator
City of Oakland, Public Works Agency, Transportation Services Division
250 Frank H. Ogawa Plaza, Suite 4314
Oakland, CA 94612
(510) 238-3983 | Fax: (510) 238-6412
http://www.oaklandpw.com/bicycling

Fay, Natalie

From: Brian Rabkin [brabkin@gmail.com]
Sent: Thursday, March 16, 2006 10:11 AM
To: nfay@oaklandnet.com
Subject: Case # ER060004

Dear Natalie Fay,

I am writing in regards, and deep opposition, to the proposed plan for construction at McArthur BART.

I currently live on 41st st. 1/2 a block east of Telegraph and 1 block from the McArthur BART. The neighborhood around the BART cannot incorporate 800 new units in such a densly populated location of the city. With the addition of only 500 parking spots dedicated for the privat use of the 800 units, there will be a huge increase in cars parked on the streets in the surrounding neighbourhoods that will be associated with the new buildings. Currently there are not enough spaces to park on our street and we have to park up to two blocks away some evenings, and during the daytime parking on the street that is made available by the residents who commute by car to work in the morning are filled by BART commuters who park on our streets and walk to BART - for lack of BART parking spots and SAFTY concerns with parking at BART.

The reduction in parking spots at BART by 50%, i.e. the loss of 300 spaces will both, reduce the ease of use of BART as an ulternative to driving and will also result in an increased in cars parking in the allready surrounding neighborhood. That is 300 additional cars needing parking, on top of the cars that will be associated with the 800 or so units being built that wont have a dedicated parking spot. That is a huge impact to our enviornment. Just think of all the additional traffic through our neighborhoods. We currently have speed bumps to reduce the flow trhough our neighborhoods because the traffic on our residential streets is already a massive problem, please don't allow it to get any worse.

Another major inpact on our enviornment will be the 20story buildings them selves which will be an eye sore in addition to blocking sunlight and spurring additional high rise developments in our neighbourhood thereby changing the face of the neighbourhood to a more downtown style. It would be best if the highrise buildings were located downtown adjacent to already existing highrises.

In Summary: I totally oppose the buiding project and feel it will adversly impact the users of the McArthur BART and there for the BART system as a whole, our local neighborhood and the city as a whole (by spreading large building complexes throughout the city- as upposed to concentratin them in one local).

Thank you
Brian Rabkin
465 41st St. Oakland CA

Fay, Natalie

From:	Lee [caleesf@yahoo.com]
Sent:	Tuesday, March 14, 2006 4:20 PM
To:	nfay@oaklandnet.com
Subject:	Proposed Condos at MacArthur BART

I want to express my views on the proposed development at the MacArthur BART station. I have lived in Oakland for 27 years, the last 15 of those years as a home-owner in the Temescal neighborhood. I am usually pro-growth and development. It makes sense for Oakland to evolve and change with the demands of its citizens. However, this development goes too far.

Twenty-two and twenty story high-rises in the Temescal neighborhood are unacceptable. It is totally out of scale and scope for this area of Oakland. This type of high-rise condo unit would be well suited around Lake Merrit or downtown, but not in the Temescal neighborhood. Look at the condos proposed for the corner of 51st and Telegraph for the right scale. A 65 foot building is reasonable. Anything larger is not.

This is my opinion for what it is worth.

I have one question. Who will directly financially benefit from this project? BART? Who is the owner and developer of this project? Thanks for reading my message.

Lee Edwards
375 50th Street

Fay, Natalie

From: Adesina Stewart [adesina.stewart@gmail.com]
Sent: Monday, March 13, 2006 7:02 PM
To: nfay@oaklandnet.com
Subject: MacArthur project

Hi,

I read about the proposed McArthur Bart development in the Temescal News & Views. I looked at the info on oaklandnet and it references a meeting this week but gives no information about time or location. Can you send me more information, I'd like to attend. You can leave me a message at 510-593-4996

My initial instinct as some that lives in the neighborhood is that I don't like it at all. While I agree that we need something, I think the towers would be a blight on the neighborhood. Something so large would change the character of this area so much that I would probably want to move. If I wanted all that, I would still live in San Francisco. I moved here so I could actually park my car within blocks of my house. No permit zone is going to change the fact that parking and traffic will be atrocious if you add 800 homes and retail establishments to the area. I think the several story buildings are fine, but how about a park or community garden on top of the Bart parking instead of the towers. Also, the drawing looks like it's painted the awful salmon and mustard colors that are so popular yet so revolting. Please tell whoever chooses the color that they should be thinking about what it will look like in 10 years when that color scheme is out of fashion.

My other questions involve the sustainability of the material used in the building. Will it be a "Green Building" and if so how? I heard at the Green Festival the Oakland was trying to become the Nation's #1 Green City, does that include having standards for new building?

Thanks
Adesina Stewart

Fay, Natalie

From: Jeff Norman [jnorman@california.com]
Sent: Wednesday, March 15, 2006 4:55 PM
To: Natalie Fay
Subject: MacArthur Transit Village

March 15, 2006

Natalie Fay
Senior Transportation Planner
CEDA
250 Frank Ogawa Plaza, Suite 33155, 2006
Oakland, CA 94612

RE: NOP of a Draft Environmental Impact Report
MacArthur Transit Village Project

Dear Ms. Fay,

As a twenty year resident of Temescal and neighborhood activist, I am writing to address some concerns I have based on the above mentioned notice I received.

To begin with, I support creating a transit village at this BART station to encourage the use of public transit and increased BART ridership, and to provide additional, much needed community serving retail that neighbors can walk to.

However, the proposed 20- and 22-story towers are grossly out of scale with the neighborhood. Buildings of this height belong downtown, where the precedent for them has long been established. The fact that this is a transit village does not justify these high-rises.

The 5-story buildings proposed for Telegraph Ave. and 40th St. likewise are too tall. The community fought long and hard to establish C-28 zoning in the 1990s (replacing the out-of-date zoning from the 1960s), and the 40-foot height maximum which C-28 allows would provide the needed additional density without overwhelming the historic fabric of the Temescal neighborhood. While there are lessons to learn from the Fruitvale Transit village, its scale is much more in keeping with what would be compatible in Temescal.

I am glad to see that a healthy percentage of units would be designated as affordable housing, but I find it disturbing that the developer has proposed to restrict it to the lower buildings. This suggests that lower income families do not deserve the same amenities, such as views, as wealthier families. It also would be a benefit to the entire community to have some portion of the for-sale condo units designated as affordable housing as well.

Finally, while I'm sure I support some of the ideals underlying the proposal to limit on-site parking to less than one car per unit, and to cut in half the current amount of available parking for BART patrons, the impact of this on adjacent residential streets would be enormous. A neighborhood permit parking program, as has been proposed, will help mitigate this, but only if residents of the project are excluded from the program. This would also help ensure that the project is truly the transit-friendly project that planners hope it to be. Please research this possibility, especially with the City of Berkeley, which has successfully instituted this kind of restriction by making it a Condition of Approval.

Thank you.

Sincerely yours,

Jeff Norman
477 Rich St.
Oakland, CA 94609

Fay, Natalie

From: Anne Boyd Rabkin [boydrabkin@gmail.com]
Sent: Wednesday, March 15, 2006 10:07 PM
To: nfay@oaklandnet.com
Subject: Case # ER060004

Dear Natalie Fay,

I'm writing to express my concern about and strong opposition to the plan for the MacArthur Transit Village Project. As a resident in the neighborhood near the McArthur Bart, I'm deeply concerned with how disruptive this plan will be for the area. For example, there is already not enough parking at the BART station, which means the residential streets are full of commuters' cars parked during the day. This planned building will exacerbate the parking situation and lower quality of life in the neighborhood. I'm also concerned about the economic viability of this plan, coming into an area that is already struggling to gain economic ground.

Thank you for taking into considerations my concerns, and that of my many neighbors and Oakland residents who oppose the Transit Village Project.

Best regards,
Anne Boyd Rabkin

--
Anne Boyd Rabkin, M.P.A.
cell: 510-316-7144

March 28, 2006

City Of Oakland, CEDA - Redevelopment Division
ATTN: Kathy Kleinbaum
250 Frank H. Ogawa Plaza
Suite 5313
Oakland, CA 94612

Dear Ms. Kleinbaum:

Thank you for all the work and dedication you have put into improving the area around 40th Street and MLK and in particular to advancing plans for the MacArthur BART Transit Village.

The current proposal for the Village is (among other things) to build two residential towers, 22 stories and 20 stories respectively, to finance other aspects of the project, while not acquiring or developing most parcels that front West MacArthur Boulevard. The result is a project with a smaller footprint than was envisioned in earlier proposals, and with traffic interface primarily on Telegraph and 40th Streets, as opposed to West MacArthur.

I believe it is critical to the success of the project to fully interface with West MacArthur. A six-lane thoroughfare, it is currently underutilized since it no longer leads to the Bay Bridge or ferries, as it once did. Meanwhile, since 40th Street was extended into Emeryville in the mid-1990's, 40th has become increasingly congested. Completion of this project with major interaction on 40th Street, and lesser flow from or to West MacArthur, will only exacerbate current traffic problems on 40th.

Meanwhile, most buildings in the area are six stories or less. Once a building exceeds ten stories in height, it will be out of character with the neighborhood. It will be a tall building rising above all others in the area, regardless if it is 15 stories, 20 stories or 25 stories. Esthetically, it matters little what the exact height is, once it rises above. We are told the tall towers are necessary or else the project won't "pencil out."

Doesn't it, then, make more sense to make the towers as tall as possible, to generate additional funds that could be used to acquire properties fronting West MacArthur and to incorporate them into the project? That way, traffic flow could be more generally dispersed and, finally, a real entrance to the BART station from the south could become a reality.

You may be aware that a consortium has proposed constructing five 30 story residential towers at the Pacific Pipe site at Mandela Parkway and West Grand Avenue. Therefore, the concept of using residential high rises to finance less profitable aspects of developments is under consideration elsewhere in the general area.

Thank you for considering these possibilities and sharing them with those who are to evaluate the economic feasibility of the project and its possible variants.

Sincerely,

Larry Rice

Larry Rice
40th Street homeowner

cc: LSA Associates, Inc.

Fay, Natalie

From: Tamara Nicoloff [tamara_nicoloff@sbcglobal.net]

Sent: Wednesday, March 15, 2006 5:54 PM

To: nfay@oaklandnet.com

Subject: MacArthur Bart housing development

Dear Natalie Fay,

I am writing to express my concern about the size of the development being planned and the decrease in the amount of Bart parking slots.

I do not like the idea of high-density housing with two tall towers near the Bart station. Although I agree that we need more affordable housing, high density housing has proven in the past to leave a bad impact on the surrounding area. Surely this development could be scaled down a bit.

In addition, I don't understand why Bart riders are being asked to give up their parking spaces for this development. We actually need more Bart parking rather than less. Why isn't the design of this development improving the transit situation rather than making it worse. Giving neighbors the right to park locally helps them but doesn't help the commuters who need to part. Do we really want to force more people into driving?

Please consider redesigning this project to be more of an asset to Oakland's rebirth, instead of a liability we will live with for years.

Thank you,
Tamara Nicoloff
Temescal home owner

March 14, 2006

Melissa Buss
130 Webster Street #200
Oakland, Ca

MacArthur Planning Commission EIR Scoping Session

Dear Melissa:

I don't know if I can speak at the meeting tomorrow night. I have another meeting which I am already committed. I hope you can convey the contents of this memo to the Commission.

I am unable to speak as Chair of the Project Area Committee (PAC) as they have not taken a stand in regards to the EIR. As an individual I am highly for this project. I am hoping that it will move forward without objection. In regards to the EIR, I share some concerns about parking and crime (as it exists) at the site. I hope such things as bicycle lanes and shuttle bus are considered. I also hope that in addition to adding more eyes to the street, which this project offers, Oakland and BART police will be able to help curtail the crime problems that currently exist.

Thank you for helping to get this to the Planning Commission.

Charles Porter

Charles Porter
1079-53rd Street
Oakland, Ca 94608
510 547-2689
E-mail cpjw8@aol.com

Fay, Natalie

From: Michael Diehl [adversary359@yahoo.com]

Sent: Thursday, March 16, 2006 4:48 PM

To: nfay@oaklandnet.com; mstanzione@oakland.net

Cc: Barbara Majak; Margaret BHCS Walkover; Gary Spicer; Desley Brooks; Nancy Nadel; Ignacio del Fuente; Jane Brunner; Larry Reid; Jean Quan

Subject: MacArthur Transit Village/special needs

Dear Natalie,

It is important that any time any significant housing is built in Oakland/anywhere in the Bay area that the needs of those who make below what is considered a living wage and especially those on a fixed income like SSI disability(physical & mental) with access to shelter plus care/Section 8 and Social Security have some of that housing dedicated to their needs. We are in an extreme housing crisis that is negatively impacting the cultural/racial diversity of Oakland. I do not want see a situation such as happened with the Fruitvale transit village where many in the lower income culturally diverse neighborhoods in the immediate area could not afford to be in the transit village or the situation at the Ashby proposed transit viilage where the focus is on providing affordable housing for the city/school employees of Berkeley while displacing a community resource that provides jobs and maintains cultural diversity particularly for those of the African dispora which is being gentified out of south Berkeley and increasinly also in north Oakland. We need a serious commitment in the East Bay to aiding the current federal HUD push to "eradicate homelessness" partially by making sure that those in danger of losing their housing due to gentrification do not wind up on the street especially now as there is a regional push to implement a local Multiplan on Homelessness developed in meetings that included the mayors of Oakland, Berkeley and San Francisco and to provide housing for the mentally disabled. This is done better by including some of this in mixed housing plans rather ghettoizing the problems. These concerns were discussed by the Alliance of Bay Area Governments and Alameda County's Measure D in discussions about promoting smart growth.

I would appreciate inclusion of these concerns in discussions of building the MacArthur transit village and in the Oak and Ninth housing development. I am conveying concerns of homeless and mental health clients served by B.O.S.S. As one of them from the Oakland Homeless Project said to the Oakland Planning Commission late Wed. eve. we are born innocent alike but become seperated but as is the city symbol of Oakland we are still all part of one of tree that still (should) unite as one community.

Sincerely.
Michael Diehl,

adversary359@yahoo.com, 510-472-6192

community organizer for the homeless, Building Opportunities for Self Sufficiency, mental health consumer advocate

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To Natalie Fay, Senior Trans Planner
CEDA
Case File # ER 06004 3/15/2006

Dear Natalie Fay,

We opened last year, thinking we would be here for many years of business. We are shocked to find out we may have spent a lot of money for nothing.

Please reconsider the project, to include us and our needs.

Yen Bin Wu

To Natalie Fay, Senior Trans Planner
CEDA
Case File # ER06004 3/15/2006

Dear Natalie Fay,

We opened our business almost two years ago, and we never imagined that our time here would be limited.

Please reconsider the project to include our needs.

Betty Larsen

Hawson

3/15/06

Natalie Foy, Senior Trans. planner
250 Frank H. Ogawa plaza Suit 3315
Oakland, CA 94612

Dear Natalie Foy

I just open this businesses a few weeks ago, After spent a lot of money and time, I planned that will be my Children and my life for the next five years at last, please take into Consideration what a shocked time I had while I herd this bad news please includ me and our needs

Mekedes
3915 Telegraph

Fay, Natalie

From: Kleinbaum, Kathy
Sent: Wednesday, March 15, 2006 11:09 AM
To: Fay, Natalie
Subject: FW: MacArthur BART

FYI.

Kathy Kleinbaum
City of Oakland
CEDA, Redevelopment Division
250 Frank Ogawa Plaza, Suite 5313
Oakland, CA 94612
Ph: (510) 238-7185
Fax: (510) 238-3691
** Please note change in phone number effective 12/19/05**

From: Hugh Louch [mailto:hlouch@gmail.com]
Sent: Wednesday, March 15, 2006 10:54 AM
To: Melissa Buss; Deborah Castles; Kleinbaum, Kathy
Subject: MacArthur BART

I just wanted to let you know that I and at least one or two other people who support the MacArthur BART project in general will be at the meeting today.

One thing that occurred to a couple of us that might help address community concerns would be to do something like an area specific plan for a half mile around the station. This plan could address community concerns that may not be captured as part of the EIR. I am assuming that the EIR will focus primarily on issues on the property itself (such as soils) or issues directly generated by the project (such as traffic).

An area plan could knit together the work that has been done on the Telegraph streetscape improvements, 40th Street access improvements, and the redevelopment plan into a cohesive vision for the neighborhood. It could also address some of the issues that are most significant to the surrounding community, such as crime, the motels along MacArthur, and others that would not be captured by the EIR. It might be able to show how the project could benefit some of these - e.g., by making the motel properties more valuable for density housing. Primarily, I think it could serve as a means for the community to articulate a vision of what they want in the neighborhood as a whole and identify strategies to make this happen.

Since this has come up in discussions, I wanted to let you know that some of these issues may be raised during the meeting today. I know you'll be getting a fair number of people opposed to the towers out and it seems like this might be a low-cost way to get additional people on board.

See you this evening.
-Hugh

Fay, Natalie

From: Michele Accorsi [michele_accorsi@hotmail.com]
Sent: Monday, March 20, 2006 7:26 PM
To: nfay@oaklandnet.com
Subject: MacArthur transit village, parking spaces

I just today got the Temescal News & Views flyer with the information. I live at 335 49th street, and I would like to say that I don't believe they are allotting enough parking spaces. To provide only one parking space for high-density, multi-family units seems silly from the very beginning, and then to reduce Bart spaces by 50% on top of that, it's just asking for trouble !!!

Thank you,
Michele Accorsi

March 19, 2006

Dear Ms. Fay:

My Name is Laura Hunter my aunt Rosalea Wallace owns a home at 619 Apgar St. in Oakland. I am also the trustee for said property.
She is 83 years old and has owned and currently lives at that property since 1978.
She attended the planning meeting on the 15th of March. According to her, it was very difficult to hear the panel due to the crowd as well as the p.a. system.
I was unable to attend. She bought home the handouts given at said meeting. As you can well imagine she is very concerned that she is going to lose her home.
From the diagram it seems as though your plans go right through her property. Before writing this letter I attempted to go on to the website listed on your handout. I was unsuccessful.
So if you could please help me to explain exactly what is going on to her I would greatly appreciate it.
Please feel free to contact me at;
Home: 415-252-0608
Cell: 415-902-0110
Or if you would like to send me some information my address is:

Laura Hunter
543 Buena Vista West Apt.5
San Francisco, Ca.94117

Sincerely,
Laura Hunter
Laura C. Hunter

broklcrofts@earthlink.net
March 15, 2006

Re: MacArthur BART Transit Village

Planning Commissioners:

Where is the demand for this transit village, other than from the development community? Why has the public not involved from the get-go in this process? Where is the Councilperson and a true public process?

BART is a public agency, subsidized by the taxpayers. Years of disruption (many blame the impact of building BART as the cause of the death of a healthy retail environment in downtown Oakland), eminent domain and the loss of many homes and businesses, and a huge expenditure of public funds built BART. The taxpayers are also underwriting the MacArthur/San Pablo/Broadway redevelopment area, and making up for the money the redevelopment agency is socking away that would otherwise go to fund police, fire, and other basic services. One might question why that area was declared so irredeemably/intractably blighted in the first place, that a redevelopment area needed to be created.

I fear this latest project is part of a long history of a lack of foresight and planning vis a vis BART: the failure to underground BART in all of Oakland (cleverly demarking the Oakland/Berkeley border), the failure to anticipate development on the BART lots themselves, and now these ill-conceived transit villages that --at least at Ashby and MacArthur BART--are forced upon a skeptical, mostly unaware public.

Since the public must be at the table in a token way because of the subsidized nature of BART and the redevelopment agency, why is the old familiar Bottom Line dictating twin towers of 20 and 22 stories? Who in the community has asked for that? What the community DID ask for was integrating and accommodating the west side of the BART station. This project does not do that, thereby aggravating the class/racial nature of the divide between the two areas.

This project also unfortunately resembles the Uptown Forest City project in its embrace of the PUD model--developments plopped down upon cleared lots that can't and won't either blend with existing architecture elements, many with more character than what is proposed, or truly integrate with the preexisting surrounding neighborhood. Certainly the twin towers relate to nothing nearby.

As this is an EIR and--so far--the only public forum to discuss this project, I would also suggest as part of the EIR:

1. A extensive, building by building survey of the surrounding neighborhoods to identify the historic resources that will be affected by the shadows, increased traffic and parking demands, and visual impacts of this project. This study should encompass boundaries at least as far as Temescal commercial district, Emeryville border, Claremont and Grand Ave.

2. Cumulative traffic/parking impacts must also incorporate the massive Kaiser Hospital campus expansions.

3. Failed condo projects are not uncommon, and the EIR must address issues of blighted, vacant twin towers, perhaps tenanted by absentee owners and sublets. The Fruitvale Transit Village is teetering on the brink of financial disaster because of the failing retail component--are speculative high-rise condos another BART learning curve experiment? Do BART boardmembers run on their development expertise?

4. The consequences of further demands placed upon an already strapped and inadequate police force, and a fire department which has rotated closures of fire stations must also be addressed. Where is the subsidy for the additional police and fire that will be required, and where are the schools to accommodate children of the new residents? Oakland's school district is in receivership and the nearest elementary schools to this project are either shuttered or converted to charter schools. Will the developers pay impact fees demanded as a matter of course in other cities?

5. This project is being promoted as "smart growth"--creating further urban density to save agricultural land and open space, and as affordable housing for Oakland's valued but priced-out-of-the-housing-market workers such as police and schoolteachers.

So why not subsidize units for teachers and police, why not--as a mitigation for this project's overwhelming density--allocate money to set aside more parkland in Oakland and subsidize community gardens and greenbelts?

6. The architecture for this project is a mystery, other than big and massive, and therefore impossible to critique.

7. Where is the "green" component? Where is the solar power component?

Sincerely,

Robert Brokl

1600 Franklin Street, Oakland, CA 94612 - Ph. 510/891-4716 - Fax. 510/891-7157

Nancy Skowbo
Deputy General Manager for Service Development

March 17, 2006

Natalie Fay
Senior Transportation Planner
Community and Economic Development Agency
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Notice of Preparation of Draft Environmental Impact Report (EIR) for MacArthur Transit Village Project

Dear Ms.Fay:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) on the MacArthur Transit Village Project. The MacArthur Transit Village is an important project for Oakland and for transit-oriented development.

The proposed transit village is located on the east side of MacArthur BART (40th Street west of Telegraph Avenue), on a 7 acre site consisting primarily of the current BART surface parking lot. The project would develop 800 units of multi-family housing and 30,000 square feet of retail space. Approximately 20% of the units would be below market rate, though the NOP does not specify the rent or price for these units. The buildings along Telegraph Avenue would be five stories (four stories over retail); those along the freeway/BART track would be towers of 20 and 22 stories respectively. The project would include 1,030 parking spaces for development on the site and 300 BART parking spaces (to replace the 600 existing spaces). A Residential Permit Parking Program would be implemented for areas within ¼ mile of the project site to mitigate potential parking spillover.

Transit-Oriented Development at MacArthur

As we have consistently stated, AC Transit is supportive of high density, transit-oriented development. However, this type of development does require sensitive architectural and urban design, particularly because this area has not previously had high-rise development. We discuss our support for transit-oriented development in our handbook, Designing With Transit.

Transit to MacArthur Station

MacArthur station is a particularly appropriate location for this type of transit-oriented development. It is close to shopping areas and is served by three BART lines. There are seven AC Transit lines at the station, or within a block of it—the 12 Grand, 14 Adeline, 15 Martin Luther King, 40 Telegraph, 43 Shattuck, 57 MacArthur, and C Moraga Avenue Transbay. AC Transit is planning Bus Rapid Transit service on Telegraph Avenue, one block east of BART. The station is also served by Emery-Go-Round, and by shuttle service to Kaiser Hospital. Between BART, AC Transit, and Emery-Go-Round, MacArthur BART has direct transit to Downtown San Francisco, Downtown Oakland, UC Berkeley, Pill Hill, Emeryville shopping areas, and numerous other destinations. This widespread, multimodal access is a key asset for future inhabitants of the Transit Village—it should be preserved and enhanced.

Parking Supply and Management

There are a number of reasons why it is desirable to minimize the number of parking spaces at a transit village. Parking lots, structures, and driveways create hazards for people walking, which is the preferred mode of travel within and around a transit village. Excess parking also encourages more automobile trips to the site than would otherwise occur. Excess auto movements create hazards and delays for transit vehicles. Excess parking is also a cost to the project, making it more expensive than it would otherwise be.

The proposed reduction of BART parking spaces is a positive step. This will encourage BART patrons to reach the station by more environmentally positive means—walking, biking, using transit, living in the transit village. This reduction in parking spaces will help mitigate any traffic impacts from new housing.

The Notice of Preparation does not indicate any consideration of shared parking. The number of retail/community use parking spaces is relatively modest – 97 spaces according to the Project Information Sheet at the City's website. These spaces could be shared with the over 900 residential parking spaces and/or the 300 anticipated BART parking spaces. Sharing all or some of the 300 BART parking spaces with residential spaces should also be investigated. Taken together, these two measures could substantially reduce the amount of parking on site, reducing project costs and allowing improved design.

The 1.2 parking spaces per residential unit (again according to the website) is lower than some recent Oakland projects, but it is far higher than the parking requirement for similarly situated projects adjacent to Berkeley BART. While many residents will undoubtedly wish to have a car on site, the project provides an excellent location for those who do not wish to own a car. Provision of car sharing pods at the transit village would facilitate residence by households without a car.

Parking for residents should be charged separately from their other housing charges. People who do not wish to have a car should not have to pay for parking, while people who wish to have two cars should pay accordingly. Market rate parking charges will establish actual demand for parking and may ultimately suggest a reallocation of parking space.

The EIR should indicate where garage entrances and exits will be within the project. The size and specific locations of these can have important impacts on transit and pedestrians.

We look forward to working with Oakland on creating a development which is friendly to all forms of transit at MacArthur BART. If you have any questions about this letter, please contact Nathan Landau, Senior Transportation Planner, at 891-4792.

Sincerely,

Nancy Skowbo

Nancy Skowbo
Deputy General Manager, Service Development

cc: AC Transit Boardmembers
Jim Gleich, Deputy General Manager
Tina Spencer, Long Range Planning Manager
Anthony Bruzzone, Transportation Planning Manager
Nathan Landau, Senior Transportation Planner
Sean DiestLorgion, Transportation Planner

Fay, Natalie

From: Rajiv Bhatia [ucbhig@gmail.com]
Sent: Thursday, March 16, 2006 10:51 AM
To: nfay@oaklandnet.com
Cc: dboxer@gmail.com; seto@uclink.berkeley.edu; Tom.Rivard@sfdph.org; Jonathan Heller; Rajiv Bhatia
Subject: DEIR Scoping Comments on MacArthur Transit Village ER060004

March 16, 2006

Natalie Fay
CEDA
City of Oakland

Re: ER060004

Dear Natalie-

Please note the following comments on the NOP for the DEIR for the MacArthur Transit Village. I did not hear all of the public comments and some of these comments might be redundant with those of others Please note that I believe this is important project that will have many environmental health benefits. I hope the following comments will support both a comprehensive DEIR and healthful project design .

1) The conceptual plan illustrates a scramble system on a major street. I trust this means a comprehensive set of pedestrian realm improvements will be considered as a component of the project. I'd like to recommend that the EIR include forecasting of changes in pedestrian injury rates. An analysis for Oak to Ninth attached to this message shows the approach to such a method. There are ways to make such an analysis more robust and context specific.

2) Please consider the opportunity for planning for the Village and its DEIR to use a ped environmental quality / LOS metric or index. Such a metric could be used to systematically evaluate improvements and deficiencies. Exising metrics exist and the San Francisco Dept of Health is currently pilot testing an index that should be appropriate for this urban site. I'd be happy to share more information about that work.

3) While this is certainly a Transit Oriented Development, non commute vehicle trips make up the large majority of vehicle trips. Please consider a comprehensive Transportation Demand Mangement Plan for the site and evalaute the feasibility of these options in the EIR. Given the location, the Village appears to be an opportunity both to unbundle parking from housing and to reduce parking rations below 1:1. Both actions would support deeper and broader housing affordibility by reducing subsidies required for housing. Walking or Bicyle Paths to the nearby parks and public schools including Oakland HS should be considered.

4) Please explore opportunities to increase BMR units above the 20% mimimum requirements. By definition, 50% of the population has a household income below the median. Ideally, 50% of the housing should meet their affordibility requirements. This would benefit local jobs-housing balance in a meaningful way. Greater affordibility might require pursuing subsidies and funding from other sources

but still deserves further exploration. Unbundling parking would reduce the subsidy requirements and might faciliate feasibility.

5) In conducting trips analysis, please evalaute the effects of varying greater proportions of bmr units on trip generation. (see attached letter demonstrating the methodology)

6) In conducting the air emmissions analysis, please evaluate the effects of greater levels of bmr units on air emmissions using the URBEMIS model. (see attached letter demonstrating the methodology)

7) The village will be adjacent to I-580. Based on the recent CARB guidelines, some project residents may experience respiratory health effects because of the proximity to the roadway. There may be several feasible mitigations to lessen these effects involving desing and buildign orientation. I will send you a list of possible mitigations in a seperate email.

Thank you for your consideration of these comments. Please contact me if you would like to discuss these suggestions.

Rajiv Bhatia, MD, MPH
99 Roble Road
Oakland CA 94618

COEH

Rajiv Bhatia, MD, MPH
Assistant Clinical Professor of Medicine
Center for Occupational and Environmental Health
School of Public Health
University of California
Berkeley, CA 94720-7360

March 8th, 2006

Colland Jang
Chair, City of Oakland Planning Commission
Community Economic Development Agency
250 Frank Ogawa Plaza, Suite 3315
Oakland CA 84612

Re: Housing Affordability Can Mitigates Adverse Transportation and Air Quality Impacts of the Oak to Ninth Project; Case ER 04- 0009

Dear Mr. Jang:

This letter provides compelling evidence and analysis demonstrating that modifications in the Oak to Ninth project with regards to housing affordability would mitigate adverse transportation and air quality impacts.

The Draft EIR acknowledges that development of the Oak-to-Ninth Avenue Project, which includes 3100 residential units and 3500 parking spaces, will result in an additional 27,110 daily vehicle trips external to the project. The indirect impacts of these trips on Transportation System Performance, Air Quality, and Pedestrian Safety are significant. The analysis below, using existing regional transportation data and Air Resources Board modeling tools, shows that by modifying project design and increasing the number and type of units below market rate, the project could mitigate a significant portion of these transportation and air quality impacts.

Based on this analysis, the City of Oakland has a legal responsibility to transparently evaluate the environmental impacts of affordability as well as the feasibility of increasing affordability either as a project alternative or as potential air quality and transportation impacts mitigation. The letter makes the following key points:

- **The Oak to Ninth FEIR inappropriately denies a nexus between housing affordability and environmental impacts on transportation and air quality.**
- **The Metropolitan Transportation Agency (MTC) Bay Area Travel Survey (BATS) provides evidence for an unequivocal relationship between household income and personal vehicle trip generation.**
- **Based on MTC data, relative to the project as proposed, 15% affordability requirements would generate 1113 fewer weekday vehicle trips while a project that balances affordability relative to regional household incomes would produce 3426 fewer vehicle trips.**
- **Reducing vehicle trips would mitigate indirect effects of trips including those on traffic congestion and pedestrian safety.**
- **The Urban Emissions Model (URBEMIS) includes a parameter (variable) for housing affordability as an emissions mitigation measure.**

- **The URBEMIS model has the capacity to estimate changes in emissions for different proportions of restricted below market rate housing unit. The Oak to Ninth FEIR did not use this functionality to analyze the effects of varying levels of affordability on air emissions.**
- **Analysis using the URBEMIS model shows that greater housing affordability would reduce indirect air quality impacts of the Oak to Ninth Project.**
- **Increasing affordability would also increase the number of vehicle free households resulting in less need for parking and potentially allowing a greater proportion of the site to serve open space needs.**
- **The feasibility of project alternatives or mitigations with greater affordability must be analyzed by the City of Oakland as part of the FEIR.**
- **The results of negotiation between the developer, the City, and other stakeholders on affordability should be made transparent in the EIR because of their impacts on the significance of traffic, noise, air quality, and pedestrian safety impacts.**

Regulatory Context

Sections 15131 and 15064 of the California Environmental Quality Act require the analysis of significant physical environmental impacts resulting indirectly from project-related social effects or produced through project-related socio-economic mechanisms.[1 2] Case law has affirmed this requirement.[3] An EIR must similarly consider socioeconomic measures that mitigate significant effects of the project[4].

The FEIR addresses the concern related to housing affordability in Master Response H: Non-CEQA Topics and Considerations. The Section acknowledges the responsibility of the EIR to evaluate social and economic effects if evidence suggests that these effects will produce significant environmental impacts. The Section claims that this analysis has occurred in Section IV.J of the DEIR on Population and Housing.

The City of Oakland's Oak to Ninth FEIR is deficient in not mitigating effects on transportation and air quality through altering project design with regards to housing affordability. Neither the DEIR nor Master Response H acknowledge that housing affordability is directly related to several of the significant and potentially significant environmental effects of the project, including impacts on transportation, pedestrian safety, noise, air quality, and open space adequacy.

It is important to also note that housing affordability is an important policy goal within the City of Oakland's Housing Element of the General Plan.

Master Response H also notes that the City, the Developer, and the Redevelopment Agency are currently negotiating the inclusion of some affordable units in the project. The results of this negotiation should be described in the EIR because, as described below, the percentage of affordable housing will affect the significance of traffic, noise, air quality, and pedestrian safety impacts of the project.

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1 California Code of Regulations. §15131

2 California Code of Regulations. §15064

3 Citizen's Association for Sensible Development v. County of Inyo, 172Cal.App.3d 151 (1985)

4 CEQA Guidelines section 15126.4

Housing Affordability—Vehicle Trips Analysis

The mechanism of the relationship between housing affordability and vehicle trips is mediated through relationships among household income, vehicle ownership, and vehicle driving. Abundant evidence in the transportation and planning research literature has documented this relationship. Specific to the Bay Area, the MTC quantified the relationship between household income, travel behavior, and vehicle trips based on results from their Bay Area Travel Survey. The results show the strong relationship between household income and vehicle trip generation. Households in the highest income quartile generate almost 4 more vehicle trips per day (160 percent increase) than those in the lowest quartile.

Quartile of Household Income	Q1	Q2	Q3	Q4
Range of Household Income	<$30,000	$30,000-59,999	$60,000-99,999	$100,000 +
Weekday Vehicle Driver Trips	2.402	4.102	5.302	6.327

The relationship between household income and vehicle trips suggests that variants of project design with greater affordability would be a mechanism by which the project could generate fewer vehicle trips and consequently fewer environmental impacts indirectly related to vehicle trips. The table below provides an illustration of this relationship based on three scenarios:

- Project as currently proposed with housing affordable only to those making greater than the median income[5];
- Project meeting minimum redevelopment area requirements for housing affordability with 15% of units affordable to those making less than the median income;
- Project with housing affordability in balance with the regional distribution of household income.

Scenario	Housing Affordable to Each Household Income Quartile				Weekday Trips
	Q1	Q2	Q3	Q4	
Market Rate (Current Project)	0.0%	0.0%	50.0%	50.0%	**18025**
Min Affordability Requirements	6.0%	9.0%	42.5%	42.5%	**16912**
Regionally Balanced	16.0%	30.6%	29.5%	23.8%	**14599**

Based on MTC data, relative to the project as proposed, a modified design with minimum Redevelopment Area affordability requirements would generate 1113 fewer weekday vehicle trips. **A design which balances affordability relative to regional household incomes would produce 3426 fewer vehicle trips.**

The analysis shows that a project with affordability balanced to regional needs would have significantly less adverse environmental impacts of the proposed project. Increasing affordability would also increase the number of vehicle free households resulting in less need for parking and potentially allowing a greater proportion of the site to serve open space needs.

Housing Affordability—Air Quality Analysis

5 Median Household income is defined as $60,000 in order to be consistent with the quartiles of income used in the MTC Bay Area Travel Survey.

The California Air Resources Board (CARB) developed the "Urban Emissions Model" (URBEMIS) to assist local public agencies with estimating air quality impacts from land use projects when preparing a CEQA environmental analysis. The model is situated in a user-friendly computer program that estimates construction, area source, and operational air pollution emissions from a wide variety of land use development projects in California. The model further estimates emission reductions associated with specific mitigation measures including transportation demand reduction measures and affordable housing.

This analysis applied the URBEMIS model to the Oak to Ninth project and found that the emission estimates were mitigated by increasing the proportion of below market rate (BMR) housing (See table below). We used the following land use inputs: (1)3100 condo/townhouse high rise, (2) 170,000 sq. feet regional retail, (3) 30,000 sq. feet supermarket; (4) 28.4 acres city park. Operational emission sources were set at default with temperature site specific and target year 2025.We varied the proportion of BMR units between 0 and 50%.

OPERATIONAL (VEHICLE) EMISSION ESTIMATES (lbs/day)

	ROG	**NOx**	**CO**	**SO2**	**PM10**
unmitigated	64.80	46.97	539.25	1.29	194.36
BMR 15%	64.42	46.57	534.53	1.27	192.62
BMR 25%	64.16	46.30	531.37	1.27	191.47
BMR 50%	63.51	45.63	523.49	1.25	188.58

It is important to note that the URBEMIS model provides very conservative estimates of the effect of greater affordability on reduced air emissions, and we believe the above estimates likely underestimate the beneficial effect of affordability. The URBEMIS model assumes a 4% reduction in vehicle trips for each deed-restricted below market rate housing unit. [6] The 4% reduction parameter is significantly less that the three fold difference in vehicle trip generation between households in the lowest and highest income quartiles in the Bay Area Region based on regional travel survey data. The URBEMIS parameter may reflect differences in the income—vehicle trips relationship between the Bay Area and the rest of the State of California. While this analysis provides sufficient evidence for an effect of affordability on air emissions, we would recommend modifying this parameter using Bay Area specific data in future analyses.

Summary and Recommendations

Numerous comments on the project and the DEIR including those made by Oakland City Council Members, Oakland Planning Commissioners, stakeholder organizations, and Oakland residents have stressed the need for the project to make housing created through the project affordable to average Oakland residents. The many articulate comments related to project affordability reflect the sensible position that ensuring affordability balanced with the needs of local residents is a critical requirement of social, economic, and environmental sustainability. This analysis provides specific evidence that greater affordability has a role in mitigating transportation and air quality impacts.

- **The Oak to Ninth FEIR should acknowledge and describe the nexus between housing affordability and environmental impacts on transportation and air quality.**

6 Software User's Guide: URBMEIS2002 for Windows with Enhanced Construction Module, Version 8.7, South Coast Air Quality Management District, April 2005.

- **The Oak to Ninth FEIR should analyze the effects of 15%-50% affordability requirements on vehicle trips and air pollution emissions using MTC data and the URBEMIS model.**
- **The Oak to Ninth FEIR should analyze the effects of 15%-50% affordability requirements on open space preservation.**
- **The Oak to Ninth FEIR should transparently analyze the feasibility of project variants with greater affordability, including the substance and results of any financial analysis or negotiations between the developer, the City, and other stakeholders on affordability.**

Thank you in advance for your consideration of this analysis. I look forward to learning of your actions to analyze the effects and feasibility of greater housing affordability in the FEIR. Please do not hesitate to call me with questions about this analysis.

Sincerely,

Rajiv Bhatia, MD, MPH

Edmund Seto, PhD

CC: Claudia Cappio, Douglas Boxer, Nicole Franklin, Suzie Lee, Michael Lighty, Mark McClure, Anne Mudge, Zac Wald, Jane Brunner, Nancy Nadel, Pat Kernanhan,

COEH

Rajiv Bhatia, MD, MPH.
Assistant Clinical Professor of Medicine
Center for Occupational and Environmental Health
School of Public Health
University of California
Berkeley, CA 94720-7360

March 3, 2006

Colland Jang
Chair, Oakland Planning Commission
Community Economic Development Agency
City of Oakland
250 Frank Ogawa Plaza, Suite 3315
Oakland CA 84612

Re: Analysis of Pedestrian Injuries Resulting from the Oak to Ninth Avenue Project; Oakland FEIR; Case ER 04-0009

Dear Chairperson Jang:

At the public hearing on the DEIR of the Oak to Ninth Development Proposal, you raised the important issue of pedestrian safety and requested the City to conduct in the EIR an adequate analysis of project related impacts on pedestrian safety impacts. As a member of the public health community, I appreciate your concern about this issue.

Adverse environmental impacts on humans and public health must be addressed under CEQA, including but are not limited to impacts on pedestrian safety, noise, air quality, and hazardous materials.[1] Several stakeholders identified deficiencies in the DEIR analysis of project effects on pedestrian injuries in the neighborhoods surrounding the proposed Oak to Ninth development. Unfortunately, the FEIR analysis of pedestrian safety remains inadequate; furthermore, I believe, many City of Oakland FEIR responses to comments on the DEIR are not based on evidence.

This letter provides additional evidence and original analysis demonstrating that pedestrian injuries will increase significantly directly due to project-related increases in traffic volume in several neighborhoods of Oakland surrounding the project. The evidence and analysis includes the following key points:

- **The definition and use of the term *pedestrian injury rate* in the DEIR and FEIR is neither accurate nor consistent with definitions used by the Federal Government or those used in epidemiologic investigations.**
- **Oakland has a rate of pedestrian injuries several times higher than Federal public health standards. The neighborhoods surrounding the project have a disproportionate share of pedestrian injuries relative to other neighborhoods in Oakland.**
- **Project-related impacts on pedestrian injuries are significant. Quantitative forecasting of changes to Oakland's pedestrian injury rate based on project related changes in traffic flows and a baseline injury rate of 100 injuries/year in the area of influence estimates that the project's traffic alone will contribute about 5.4 additional injuries per year or 268 pedestrian injuries in the years 2025-2075. The cumulative impact of**

1 Section 15065 of the regulations for the California Environmental Quality Act (CEQA) mandates an environmental impact report (EIR) to analyze any "...environmental effects of a project [that] will cause substantial adverse effects on human beings, either directly or indirectly. CEQA guidelines section 15126.2, subdivision (a) requires an EIR to discuss "health and safety problems caused by the physical changes" that the proposed project will precipitate. Bakersfield Citizens for Local Control vs. the City of Bakersfield reaffirmed the necessity of health analysis in an EIR prepared under CEQA. Environmental Justice also demands a full analysis of the health impacts on low-income and minority populations.

increased traffic in the area by 2025 forecasts 20 additional injuries per year with a total of 1000 growth related additional injuries in the years 2025-2075.

- **The DEIR and FEIR have not proposed or evaluated the feasibility of sufficient pedestrian safety improvements including circulation changes and street and intersection facility improvements, available to prevent increases in traffic related injuries.**

Significance of Pedestrian Injuries, National Injury Standards, and Inadequacies in the Oak to Ninth FEIR

A significant error in the FEIR is the inaccurate definition of the term, *rate of injury*. The FEIR inaccurately defines "rate of injury" as "accidents per number of vehicles." Using this definition, the City of Oakland argues that *the project will not affect the rate at which motor vehicle accidents occur because it will not affect the roadways*. This statement is misleading. The number of accidents per vehicle and the number of accidents per mile might reflect the relative safety of vehicle and roadways, respectively, but these measures do not reflect the impacts to human health. With regard to human health impacts, an appropriate measure of adverse impact is the increase in the number of injuries or the increase in the rate of injuries ***defined as the number of injuries per unit time***. This definition is the one used by the Federal Department of Health and Human Services in pedestrian injury objectives for the Nation. Holding the number of accidents per vehicle trips constant, the rate of injuries will increase simply because the number of vehicle trips will increase.

The US Department of Health and Human Services (USDHHS) has established National objectives for the **rate of pedestrian injuries**.[2] Much like National Air Quality Standards, these objectives or standards can serve as thresholds for significance for pedestrian injuries within CEQA analysis. These objectives include:

- A rate of non-fatal vehicle injuries to pedestrians no greater than 19 injuries per year per 100,000 people.
- A rate of fatal vehicle injuries to pedestrians no greater than 1 injury per year per 100,000 people.

According to Oakland's Pedestrian Master Plan, Oakland residents suffer approximately 85.5 vehicle injuries to pedestrians per 100,000 every year including 3 pedestrian fatalities per 100,000 per year.[3] **This rate of injuries is about 4 times the USDHHS standards. The published rate of fatal injuries in Oakland is 3 times the USDHHS standard.** Based on current rates and national standards, any increase in pedestrian injuries should be considered a significant adverse effect.

A significant number of Oakland pedestrian injuries occur in the neighborhoods and streets (e.g., Downtown, Jack London Square, Chinatown, Lakeshore, East Lake, Lower San Antonio, International Blvd) surrounding the proposed project. Based on population and the intensity of pedestrian injuries, this impact analysis estimates a baseline injury rate of at least 100 pedestrian injuries per year in the area affected by the Oak to Ninth Project.[4] Furthermore, the neighborhoods surrounding this project contain sensitive populations more vulnerable to impacts on pedestrian safety, including children, the elderly, walking-dependent, and the low-income transit-dependent.

Vehicle injuries to pedestrians have significant economic costs beyond their physical toll on victims. A recent analysis of California data concludes that in 1999 economic costs resulting from 5634 fatal and non-fatal vehicle injuries to pedestrians resulted in over $3.9 billion in direct and indirect costs ($692,000 per injury). California Highway Patrol estimates of economic costs of vehicle injuries to pedestrians disaggregated by injury severity are provided in the table below.

2 U.S. Department of Health and Human Services. Healthy People 2010 Objectives.

3 Oakland Pedestrian Master Plan. Page 30.

4 The author of this analysis has requested a map of counts of pedestrian injuries from the City of Oakland. A more precise estimate of pedestrian injuries in the area of influence of the Oak to Ninth project is pending this data.

Pedestrian Injury Severity	Economic Cost per Injury
Fatal Injury	$2,709,000
Severe Injury	$180,000
Visible Injury	$38,000
Complaint of Pain	$20,000

Environmental Factors Affecting Pedestrian Injuries

The rate of pedestrian injuries in an area is dependent on several **environmental factors** such as vehicle volume, vehicle type (truck vs. car), vehicle speed, pedestrian volume, roadway width, vehicle speed, pedestrian facilities (sidewalk width, driveway conflicts, buffers), intersection design (crossing distance, signal phasing and timing, corner radii, cross walk treatments, median islands, curb extensions), lighting, and weather.[5 6 7 8 9].

Vehicle speeds are the most important predictor of the **severity** of pedestrian injuries. Below 20mph the probability of serious injury or fatal injury is generally less than 20%; this proportion rapidly increases with increasing speed and above 35mph, most injuries are fatal or incapacitating.[10] With regards to sensitive populations, the elderly and the very young populations are more vulnerable to vehicle injuries while walking because of slower walking speeds or slower reaction times.

Public health and transportation safety research consistently demonstrates that **vehicle volumes** are an **independent environmental predictor of pedestrian injuries**.[11 12 13 14] In other words, all things being equal, when the number of vehicle trips increases, the number of vehicle injuries to pedestrians will also increase. A national study of pedestrian injuries and crosswalks that included data from Oakland also found that higher average daily traffic and multi-lane roads were significant and independent environmental risk factors for vehicle-pedestrian crashes in multi-variate analysis.[15] One recent study found that traffic volume, traffic speed and lateral separation between pedestrians and traffic explained 85% of the variation in perceived safety and comfort for pedestrians.[16] The City of Oakland Pedestrian Master Plan also highlights the negative effect of high volumes on safety.[17] The magnitude of effect of vehicle volume on injuries is significant. For example, a study of nine intersections in Boston's

5 La Scala EA, Johnson FW, Gruenewald PJ. Neighborhood Characteristics of Alcohol-related Pedestrian Injuries. Prevention Science. 2001: 2:123-134.

6 Taylor M, Lynam D, Baruay A The effects of drivers speed on the frequency of road accidents. Transport Research Laboratory. TRL Report 421 Crowthorne, UK, 2000.

7 Morrison DS, Petticrew M, Thomson H. What are the most effective ways of improving population health through transport interventions? Evidence from systematic reviews. Journal of Epidemiology and Community Health 2003:57:327-333.

8 Evidence shows that pedestrian and bicycle injuries vary with the 0.4 power of the proportion of trips made by walking or bicycle. Jacobsen PL. Safety in numbers: more walkers and bicyclists, safer walking and bicycling. Injury Prevention. 2003: 9: 205-209.

9 Leden L. Pedestrian risk decrease with pedestrian flow. A case study based on data from signalized intersections in Hamilton, Ontario. Accident Analysis and Prevention. 2002: 34:457-464.

10 National Highway Traffic Safety Administration. Literature Review on Vehicle Travel Speeds and Pedestrian Injuries. Washington DC: USDOT, 1999.

11 LaScala EA, Gerber D, Gruenewald PJ. Demographic and environmental correlates of pedestrian injury collisions: a spatial analysis. Accident analysis and Prevention. 2000; 32:651-658.

12 Roberts I, Marshall R, Lee-Joe T. The urban traffic environment and the risk of child pedestrian injury: a case-cross over approach. Epidemiology 1995; 6: 169-71.

13 Stevenson MR, Jamrozik KD, Spittle J. A case-control study of traffic risk factors and child pedestrian injury. International Journal of Epidemiology 1995; 24: 957-64.

14 Agran PF, Winn DG, Anderson CL, Tran C. Del Valle CP. The role of the physical and traffic environment in child pedestrian injuries. Pediatrics. 1996; 98: 1096-1103.

15 Zegeer CV, Steward RJ, Huang HH, Lagerwey PA. Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations: Executive Summary and Recommended Guidelines. Federal Highway Administration, 2002.

16 Landis BW, Vattikuti VR, Ottenberg RM, McLeod DS, Guttenplan M. Modeling the Roadside Walking Environment: A Pedestrian Level of Service. TRB Paper -1-0511 Tallahassee. 2000.

17 City of Oakland. Pedestrian Master Plan. Page 18.

Chinatown, researchers calculated an increase in 3-5 injuries per year for each increase in 1000 vehicles.[18]

Impact Analysis

Empirical research on traffic safety and vehicle volumes shows that the rate of pedestrian injuries increase consistently as vehicle volume increases but the relative increase in this rate is attenuated as vehicle volumes rise. The attenuation may be caused to reduced pedestrian activity in areas with high traffic. A common parametric form of the injury-vehicle volume relationship is described as follows:

Injuries = α X (Average Annual Daily Trips)$^{\beta}$; typically where $\beta < 1$ [19]

Several empirically tested pedestrian injury estimation models provide evidence that pedestrian crashes are proportional to the square root of vehicle volume (e.g., $\beta = 0.5$ in the equation above).[20] This means the number of pedestrian injuries after the project can be estimated simply as:

Total Annual Injuries = Current Annual Injuries X (Future AADT /Baseline AADT)$^{1/2}$

The Draft EIR acknowledges that development of the Oak-to-Ninth Avenue Project, which includes 3100 residential units and 3500 parking spaces, will result in an additional 27,110 daily vehicle trips external to the project. (Table IV.B-4) As described in the detailed intersection level traffic analysis in the DEIR, these trips will increase traffic volume on local streets in the downtown, Chinatown, and Jack London Square, and other neighborhoods.

According to traffic analysis in the DEIR, the increase in vehicle volumes at intersections in the neighborhoods around the project will varies considerably, ranging from about 2% to 127%. The average project-related increase in vehicle volume in the surrounding neighborhoods at the studied intersections is about 11% after project completion. The average cumulative increase in vehicle volume by 2025 at these intersections is 45%.

Assuming the current annual rate of pedestrian injuries in affected neighborhoods is 100 per year, the model described above estimates an increase in 5.4 injuries per year or 268 injuries between 2025 and 2075. [21] **Based on the cumulative increase in average daily trips of 45% in 2025, the impact is 20 injuries per year or 1000 injuries between 2025 and 2075.**

The figure below graphically illustrates the relationship between change in vehicle volume and the change in the number of injuries. The middle line represents a model with Beta set to equal 0.5 in the equation above. The upper and lower lines provide a reasonable upper and lower bound on this volume—injury relationship. A more refined analysis might estimate changes in pedestrian injuries based on vehicle flow on all segments on all roadways; nevertheless, this estimate shows that the Oak to Ninth Project will result in a significant environmental impact on pedestrian injuries in an area where the rate of pedestrian injuries already exceeds the national standard.

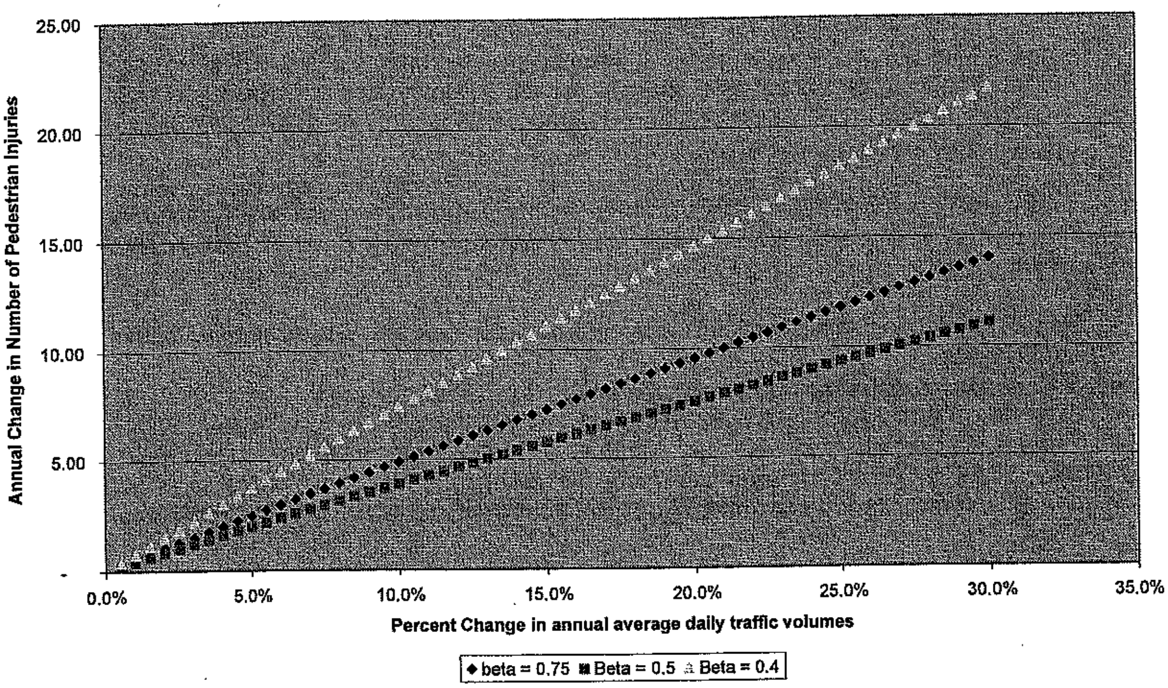
18 Brugge D, Lai Z Hill C, Rand W. Traffic injury data, policy, and public health: lessons from Boston Chinatown. Journal of Urban Health 2002; 79: 87-103.

19 Lord D, Manar A, Vizioli A. Modeling crash-flow density and crash-flow-V/C ratio relationships for rural and urban freeway segments. Accident Analysis and Prevention 2005; 37: 185-199.

20 Lee C, Abdel-Aty M. Comprehensive analysis of vehicle-pedestrian crashed at intersections in Florida. Accident Analysis and Prevention 2005; 37: 775-786.

21 Estimates of pedestrian injuries in the project's area of influence are based on review of available injury data. This estimate will be updated based on the most recent pedestrian injury data when available.

Change in Injury Counts In Relation to Changes in Traffic Flow
For Downtown, Jack London Square, West Lake, Chinatown, Oakland, California
Estimated Baseline Injury Rate = 100 per year



Available Pedestrian Safety Mitigations are not Utilized

The DEIR indicates that as mitigations to intersection LOS impacts, the project will only include new signals with pedestrian signal heads at a few intersections (Embarcadero and Oak, Embarcadero and 5th Ave; Embarcadero and I-880 Northbound off-ramp; Embarcadero and Broadway.) A Master Response in the FEIR also includes further analysis of safety impacts around train crossings. However, no mitigations are proposed in other neighborhoods where traffic will increase significantly. The DEIR summarily concludes (without evidence) that these traffic control devices at these few intersections will "safely accommodate the added vehicle and pedestrian traffic and the project would have a less than significant impact." The following evidence argues against the City of Oakland's conclusions in the DEIR and FEIR:

- The DEIR does not fully analyze impacts on pedestrian injuries resulting from project-related vehicle trips in the neighborhoods surrounding the project. It is not possible to judge the effectiveness of mitigations if the impact is not fully characterized.
- Pedestrian Safety measures proposed by the project focus on intersections. Many vehicle injuries do not occur at intersections.[22]
- The mitigations proposed are for a limited number of intersections. The FEIR does not propose or evaluate environmental mitigations at other intersections in and around the project area that are impacted by significant changes in traffic volume.
- For the mitigations proposed, the FEIR does not provide any evidence to support the efficacy of these traffic signal devices as a means to reduce pedestrian injuries.
- The FEIR does not consider other environmental mitigations impacts on pedestrian safety including curb extinctions, median islands, cross walk treatments, presence of sidewalks, roadway buffers, street lighting, and reduced crossing speeds.
- The FEIR does not consider traffic calming as mitigation. Reviews of international studies demonstrate that on average traffic calming interventions reduce accidents by 15%.[23]

22 According to the National Highway Traffic Safety Administration 78% of pedestrian injuries occur at non-injury locations. NHTSA. Traffic Safety Facts. 2002.

- The FEIR inaccurately states that pedestrian safety measures in the Revive Chinatown Plan include only the fully funded short term measures. The FEIR also mischaracterizes sidewalk widening as a pedestrian amenity but *not a safety measure*. Sidewalk widening and one-way to two-way conversions are two of the longer term recommendations proposed in the Revive Chinatown Plan that are also pedestrian safety measures. The study by Landis cited above demonstrates that sidewalk widths are a determinant of pedestrian safety. Sidewalk widening also may require lane reductions which may alter vehicle flows.
- The FEIR suggests that the Pedestrian Master Plan provides a framework for mitigating the adverse impacts of vehicles on pedestrians but the project does not contribute to improvements suggested by the Plan.

Further analysis of pedestrian safety impacts and mitigations should focus on all Oakland streets and intersections with significant increases in traffic volume resulting from the Oak to Ninth Project. The mitigations should consider all appropriate and effective practices in pedestrian safety including but not limited to:

- Traffic Calming including vehicle lane narrowing, raised crosswalks, raised intersections and traffic circles;
- Bulb outs and center median refuge islands;
- Diversion of through traffic around mixed use neighborhoods;
- One-way to two way conversions and lane reductions in mixed use residential areas;
- Speed limit reductions in mixed-use residential areas;
- Grade separated crossings where significant pedestrian pathways cross high volume multi-lane streets;
- Pedestrian warning signs or lights at crossings or cross walks without traffic signal lights
- Sidewalk widening or buffers between sidewalks and vehicle lane buffers.

Summary

Overall, the analysis of pedestrian safety in the DEIR and FEIR includes little substantive evidence or original analysis, just unsupported conclusions. An evidence based analysis shows that project-related impacts on pedestrian safety are significant. The project has provides for no mitigations specific to the needs of pedestrians in the mixed use neighborhoods surrounding the project area. I strongly urge the Developer, the City of Oakland, the Planning Commission, and the Oakland City Council to provide additional pedestrian safety mitigations as described above to prevent the pedestrian injuries expected to result from this project.

Thank you for your consideration of this analysis and the proposed mitigations. I look forward to learning of Oakland Planning Commission actions to prevent pedestrian injuries. Please do not hesitate to call me with questions.

Sincerely,

Rajiv Bhatia, MD, MPH.

CC: Claudia Cappio, Douglas Boxer, Nicole Franklin, Suzie Lee, Michael Lighty, Mark McClure, Anne Mudge, Zac Wald, Jane Brunner, Nancy Nadel, Pat Kernanhan

23 Morrison DS, Petticrew M, Thomson H. What are the most effective ways of improving population health through transport interventions? Evidence from systematic reviews. Journal of Epidemiology and Community Health 2003:57:327-333.

To Natalie Fay, Senior Trans Planner

CEDA

3/15/2006

Case File# ER06004

Dear Natalie Fay,

I have spent a lot of money creating my restaurant. I do not want to lose it. Please reconsider this project, or make sure I am included in it in some way.

YUYU ZA ZANG
HOME MADE NOODLE
BUSINESS HOURS
MON-SUN
11:30AM ~ 10:00PM

Larry Yu

YUYU ZA ZANG

HOME MADE NOODLE

510.653.2288

3919 TELEGRAPH AVE., (40TH ST.) OAKLAND, CA 94609

ALAMEDA COUNTY
CONGESTION MANAGEMENT AGENCY

1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185
E-MAIL: mail@accma.ca.gov • WEB SITE: accma.ca.gov

March 16, 2006

Ms. Natalie Fay
Senior Transportation Planner
Community and Economic Development Agency
City of Oakland Planning Division
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

SUBJECT: Comments on the Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the MacArthur Transit Village Project in the City of Oakland (Case # ER060004)

Dear Ms. Fay:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the MacArthur Transit Village project in the City of Oakland. The project site is located in North Oakland, and Highway 24. The site is approximately 7 acres and includes the BART parking lot and four privately owned parcels that are anticipated to be acquired as part of the project. The proposed project would include six buildings with approximately 800 units of high density multi-family housing and 30,000 square feet of ground floor neighborhood serving retail and community space. The project includes approximately 1,030 residential, retail and community use parking spaces and 300 BART parking spaces. BART currently has approximately 600 spaces dedicated for exclusive BART parking purposes. This project would reduce exclusive BART parking by approximately 50 percent. Full replacement of BART commuter parking will also be analyzed as part of this. As part of the proposed project, a Residential Parking Permit Program, covering a ¼ mile radius around the project site, would be implemented to minimize potential adverse BART parking effects on the surrounding neighborhood.

The ACCMA respectfully submits the following comments:

<u>Policy on Transit Oriented Development:</u>

- The proposed project is included in the 2004 Countywide Transportation Plan. Regarding Transit Oriented Developments (TOD), the CMA Board adopted a set of goals and characteristics (Attachment A) on May 27, 2004. For any transportation improvements supporting a TOD project to be eligible for funding through the CMA, it must be consistent with the adopted goals and characteristics.
    - Further, since the funds for the transportation improvements supporting the TOD projects identified through the CMA will likely be federal funds, the environmental process may need to satisfy the National Environmental Protection Act (NEPA) requirements.

<u>Land Use Analysis Program:</u>

- The City of Oakland adopted Resolution No. 69475 on November 19, 1992 establishing guidelines for reviewing the impacts of local land use decisions consistent with the Alameda County Congestion Management Program (CMP). Based on our review of the NOP, the proposed project appears to generate at least 100 p.m. peak hour trips over existing conditions. If this is the case, the CMP Land Use Analysis Program requires the City to conduct a traffic analysis of the project using the Countywide Transportation Demand Model for projection years 2010 and 2025 conditions. Please note the following paragraph as it discusses the responsibility for modeling.

    - The CMA Board amended the CMP on March 26th, 1998 so that local jurisdictions are now responsible for conducting the model runs themselves or through a consultant. The City of Oakland and the ACCMA have signed a Countywide Model Agreement on March 22, 1999. The Countywide model, updated incorporating ABAG's revisions to the employment data for Projections 2002, is available to the local jurisdictions for this purpose. However, before the model can be released to you or your consultant, a letter must be submitted to the ACCMA requesting use of the model and describing the project. A copy of a sample letter agreement is available upon request.

- Potential impacts of the project on the Metropolitan Transportation System (MTS) need to be addressed. (See 2005 CMP Figures E-2 and E-3 and Figure 2). The DEIR should address all potential impacts of the project on the MTS roadway and transit systems. These include SR 24, I-80, I-580, I-880, W. MacArthur Blvd, Telegraph Ave., Adeline Street, MLK Jr. Way, Shattuck Ave., 42nd Avenue, 51st Street, Claremont Avenue., as well as BART and AC Transit. Potential impacts of the project must be addressed for 2010 and 2025 conditions.
    - Please note that the ACCMA does not have a policy for determining a threshold of significance for Level of Service for the Land Use Analysis Program of the CMP. Professional judgment should be applied to determine the significance of project impacts (Please see chapter 6 of 2005 CMP for more information).
    - In addition, the adopted 2005 CMP requires using 1985 Highway Capacity Manual for freeway capacity standards.

- The adequacy of any project mitigation measures should be discussed. On February 25, 1993 the CMA Board adopted three criteria for evaluating the adequacy of DEIR project mitigation measures:
    - Project mitigation measures must be adequate to sustain CMP service standards for roadways and transit;
    - Project mitigation measures must be fully funded to be considered adequate;
    - Project mitigation measures that rely on state or federal funds directed by or influenced by the CMA must be consistent with the project funding priorities established in the Capital Improvement Program (CIP) section of the CMP or the Regional Transportation Plan (RTP).

  The DEIR should include a discussion on the adequacy of proposed mitigation measures relative to these criteria. In particular, the DEIR should detail when proposed roadway or transit route improvements are expected to be completed, how they will be funded, and what would be the effect on LOS if only the funded portions of these projects were assumed to be built prior to project completion.

- Potential impacts of the project on CMP transit levels of service must be analyzed. (See 2005 CMP, Chapter 4). Transit service standards are 15-30 minute headways for bus service and 3.75-15 minute headways for BART during peak hours. The DEIR should address the issue of transit funding as a mitigation measure in the context of the CMA's policies as discussed above.

- The DEIR should also consider demand-related strategies that are designed to reduce the need for new roadway facilities over the long term and to make the most efficient use of existing facilities (see 2005 CMP, Chapter 5). The DEIR should consider the use of TDM measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service. Whenever possible, mechanisms that encourage ridesharing, flextime, transit, bicycling, telecommuting and other means of reducing peak hour traffic trips should be considered. The Site Design Guidelines Checklist may be useful during the review of the development proposal. A copy of the checklist is enclosed (Attachment B).

- The Alameda Countywide Bicycle Plan is currently being updated. If the proposed project includes any bike facilities that are not fully funded locally, they should be incorporated into the new Countywide Bicycle Plan in order to be eligible to apply for any state or federal funding.

- For projects adjacent to state roadway facilities, the analysis should address noise impacts of the project. If the analysis finds an impact, then mitigation measures (i.e., soundwalls) should be incorporated as part of the conditions of approval of the proposed project. It should not be assumed that federal or state funding is available.

Thank you for the opportunity to comment on this Notice of Preparation. Please do not hesitate to contact me at 510/836-2560 ext. 24 if you require additional information.

Sincerely,

Saravana Suthanthira
Associate Transportation Planner

cc:

Diane Stark, Senior Transportation Planner, ACCMA
file: CMP - Environmental Review Opinions - Responses - 2006

ATTACHMENT A

Transit Oriented Development
Goals

Mobility, Livability and Transit Support

Enhance community livability by promoting in-fill-transit oriented and walkable communities and compact development, as appropriate. Support the development of multi-family housing, mixed-use development, and alternative transportation adjacent to transit centers to increase mobility, reduce traffic congestion, and improve opportunities for all members of the community.

Local and Regional Transportation Efficiencies

Promote opportunities for transit use and alternative modes of transportation including improved rail, bus, high occupancy vehicle systems, and ferry services as well as enhanced walking and biking. Increase connectivity between and strengthen alternative modes of transportation, including improved rail, bus, rideshare and ferry services as well as walking and biking. Promote investments that adequately maintain the existing transportation system and improve the efficiency of transportation infrastructure.

Infrastructure Investments

Improve and maintain existing infrastructure and support future investments that promote smart growth, including access improvements to transit.

Characteristics Needed for Effective Transit-Oriented Development

Transit-Oriented Development (TOD) is residential or mixed–use development designed and located to make transit use as attractive and convenient as possible. Mixed use would include primarily housing, with neighborhood serving retail at the home end of a commute to a large employment center. The transportation goal of Transit-Oriented Development is to provide transportation options and improve accessibility, resulting in reduced automotive emissions by increasing the share of trips that can be made conveniently by transit, walking or bicycle. This goal acknowledges that transit's ability to attract riders and mitigate the growth of the congestion hinges on supportive land use. The Effective Characteristics of Transit Oriented Development are guidelines for selecting projects likely to meet these goals. However, each TOD project needs to be reviewed with allowance for features that would likely meet these goals. Transit may include one or more modes, including BART and commuter rail stations, bus trunklines and ferry stations.

Development Concept: Owner- and renter-occupied housing and small, local-serving businesses are co-located in a planned community that has been designed for convenient walk, bicycle and transit access.

Design Attributes: A mixed-use development of moderately high density with continuous sidewalks and convenient access to trunkline transit. Uses are transit-oriented, not auto-oriented. Moderately high density is needed to create convenient walk and bicycle access, affordability and the buying power needed to support neighborhood-scale commercial services. Primarily housing, with neighborhood serving retail.

TOD Locations: Two components of location are important for maximum transit use: 1) Proximity to one or more of the following: BART or commuter rail station, trunkline bus routes or ferry stations, and 2) proximity to home end of the commute to the urban core. Proximity to transit may be defined as location within one-third mile of a transit station or trunkline bus route or ferry station. Proximity to home end of commute to major urban centers to which commuters have a propensity to use transit is important. As travel patterns change and infrastructure expands, travel to urban centers may change. Frequency of transit service should be taken into consideration in determining TOD location.

TOD Residents:	Typically middle, moderate and lower-income households. Some TODs orient to singles, others to seniors.
Housing Mix:	Townhouses, condominiums, apartments and high density single family residential, both for lease and sale. Minimum average net housing density is 25 units per acre, with a preference for 40 units per acre or more.
Affordability:	TOD housing units are designed to include a mixture of affordability of households with middle, moderate and lower-incomes.
Residential Parking:	For each residential development within a Transit Oriented Development, a parking ratio goal of 1.5 parking spaces to 1 residential unit is encouraged to be included in base condominium prices and standard rental agreements. This is not intended to be a minimum parking ratio goal. Parking for additional cars may be purchased as an add-on or upgrade, but is not bundled into the base price of housing units. This increases TOD affordability for households that are likely transit users of car sharing patrons.
Commercial Uses:	Commercial uses are those that do not encourage auto-oriented uses. These uses include, but are not limited to local-serving, neighborhood–scale businesses such as a child-care or senior center, a café, bakery, coffee shop, delicatessen, grocery, pharmacy or dry cleaners. A proven arrangement is walk-in commercial at street level with apartments above.
Commercial Parking:	Commercial parking is located behind Main-Street businesses and/or beneath apartments and condominiums. Its location is convenient, but does not compromise the TOD's priority emphasis on walkability. Commercial parking requirements in the TOD would be a significant reduction of the jurisdiction's previous zoning requirements for a similar commercial use. Furthermore, shared parking should be encouraged.
Street and Streetscape:	Streets and streetscapes are designed to slow motor-vehicle traffic while creating shade and visual interest for pedestrians and safety for bicyclists. The pedestrian environment is designed with particular attention to the safety of children and seniors.

Local Transit and Car Sharing Services

Local bus and car sharing services connect the TOD with local employment centers, transit transfer centers, social amenities and public services, such as health clinics, senior centers, schools and universities, family youth and child care centers, parks and libraries.

Attachment B

Design Strategies Checklist
for the
Transportation Demand Management Element
of the
Alameda County CMP

The Transportation Demand Management Element included in the 2003 Congestion Management Program requires each jurisdiction to comply with the "" Required Program". This requirement can be satisfied in three ways: 1) adoption of "Design Strategies for encouraging alternatives to auto use through local development review" prepared by ABAG and the Bay Area Quality Management District; 2) adoption of new design guidelines that meet the individual needs of the local jurisdictions and the intent of the goals of the TDM Element or 3) evidence that existing policies and programs meet the intent of the goals of the TDM Element.

For those jurisdictions who have chosen to satisfy this requirement by Option 2 or 3 the following checklist has been prepared. In order to insure consistency and equity throughout the County, this checklist identifies the components of a design strategy that should be included in a local program to meet the minimum CMP conformity requirements. The required components are highlighted in bold type and are shown at the beginning of each section. A jurisdiction must answer Yes to each of the required components to be considered consistent with the CMP. Each jurisdiction will be asked to annually certify that it is complying with the TDM Element. Local jurisdictions will not be asked to submit the back-up information to the CMA justifying its response; however it should be available at the request of the public or neighboring jurisdictions.

Questions regarding optional program components are also included. You are encouraged but not required to answer these questions. ACTAC and the TDM Task Force felt that it might be useful to include additional strategies that could be considered for implementation by each jurisdiction.

CHECKLIST

Bicycle Facilities

Goal: To develop and implement design strategies that foster the development of a countywide bicycle program that incorporates a wide range of bicycle facilities to reduce vehicle trips and promote bicycle use for commuting, shopping and school activities. (Note: an example of facilities are bike paths, lanes or racks.)

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

Local Responsibilities:

1a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

> **1a.1 provides a system of bicycle facilities that connect residential and/or non-residential development to other major activity centers?**
>
> **Yes No**

> 1a.2 bicycle facilities that provide access to transit?
>
> Yes No

> 1a.3 that provide for construction of bicycle facilities needed to fill gaps, (i.e. gap clure), not provided through the development review process?
>
> Yes No

> 1a.4 that consider bicycle safety such as safe crossing of busy arterials or along bike trails?
>
> Yes No

> 1a.5 that provide for bicycle storage and bicycle parking for (A) multi-family residential and/or (B) non-residential developments?
>
> Yes No

1b. How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance
Design Review
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Pedestrian Facilities

Goal: To develop and implement design strategies that reduce vehicle trips and foster walking for commuting, shopping and school activities.

Local Responsibilities

2a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that incorporate the following:

> **2a.1 that provides reasonably direct, convenient, accessible and safe pedestrian connections to major activity centers, transit stops or hubs parks/open space and other pedestrian facilities?**
>
> **Yes No**

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

2a.2 that provide for construction of pedestrian paths needed to fill gaps, (i.e. gap closure), not provided through the development process?

Yes No

2a.3 that include safety elements such as convenient crossing at arterials?

Yes No

2a.4 that provide for amenities such as lighting, street trees, trash receptacles that promote walking?

Yes No

2a.5 that encourage uses on the first floor that are pedestrian oriented, entrances that are conveniently accessible from the sidewalk or transit stops or other strategies that promote pedestrian activities in commercial areas?

Yes No

2b. How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance
Design Review, such as ADA Accessibility Design Standards
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Transit

Goal: To develop and implement design strategies in cooperation with the appropriate transit agencies that reduce vehicle trips and foster the use of transit for commuting, shopping and school activities.

Local Responsibilities

3a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

3a.1 provide for the location of transit stops that minimize access time, facilitate intermodal transfers, and promote reasonably direct, accessible, convenient and safe connections to residential uses and major activity centers?

Yes No

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

3a.2 provide for transit stops that have shelters or benches, trash receptacles, street trees or other street furniture that promote transit use?

Yes No

3a.3 that includes a process for including transit operators in development review?

Yes No

3a.4 provide for directional signage for transit stations and/or stops?

Yes No

3a.5 that include specifications for pavement width, bus pads or pavement structure, length of bus stops, and turning radii that accommodates bus transit?

Yes No

3.b How does your jurisdiction implement these strategies? Please identify.
Zoning ordinance
Design Review
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Carpools and Vanpools

Goal: To develop and implement design strategies that reduce the overall number of vehicle trips and foster carpool and vanpool use.

Local Responsibilities:

4a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

4a.1 For publicly owned parking garages or lots, are there preferential parking spaces and/or charges for carpools or vanpools?

Yes No

4a.2 that provide for convenient or preferential parking for carpools and vanpools in non-residential developments?

Yes No

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

4.b How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance
Design Review
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Park and Ride

Goal: To develop design strategies that reduce the overall number of vehicle trips and provide park and ride lots at strategic locations.

Local Responsibilities:
5a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

5a.1 promote park and ride lots that are located near freeways or major transit hubs?

Yes No

5a.2 a process that provides input to Caltrans to insure HOV by-pass at metered freeway ramps?

Yes No

5b. How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance
Design Review
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

APPENDIX A-2

2007 NOTICE OF PREPARATION AND COMMENT LETTERS

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA OAKLAND, CALIFORNIA 94612–2033

Community and Economic Development Agency (510) 238-3941
Planning & Zoning Services Division FAX (510) 238-6538
TDD (510) 839-6451

REVISED NOTICE OF PREPARATION (NOP)
OF A DRAFT ENVIRONMENTAL IMPACT REPORT
MacARTHUR TRANSIT VILLAGE PROJECT

The Oakland Community and Economic Development Agency, Planning and Zoning Division, is preparing a Draft Environmental Impact Report (EIR) for the project identified below, and is requesting comments on the scope and content of the EIR. The EIR will include a discussion of potential environmental effects for each of the environmental topics included in Appendix G of the California Environmental Quality Act (CEQA) Guidelines, thus the City has not prepared an Initial Study. The City of Oakland is the Lead Agency for the project and is the public agency with the greatest responsibility for either approving the project or carrying it out. This notice is being sent to Responsible Agencies and other interested parties. Responsible Agencies are those public agencies, besides the City of Oakland, that also have a role in approving or carrying out the project. Responsible Agencies will receive a copy and use this EIR when considering approvals related to the project. Responsible Agencies include the San Francisco Bay Area Rapid Transit District (BART), as well as other public agencies. Response to this NOP and any additional questions or comments should be directed in writing to: Charity Wagner, Contract Planner, Community and Economic Development Agency, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612; 510-672-5886 (phone); 510-238-6538 (fax); Charity.Wagner@lsa-assoc.com. Comments on the NOP must be received at the above mailing or email address **on or before July 13, 2007**. Please reference case number ER060004 in all correspondence.

PROJECT TITLE: MacArthur Transit Village Project

PROJECT LOCATION: The project site is located in North Oakland, within the block that is bound by 40th Street, Telegraph Avenue, West MacArthur Boulevard, and Highway 24, as shown in Figure 1. The project site includes the BART parking lot, the BART Plaza, Frontage Road between West MacArthur Boulevard and 40th Street, and seven privately owned parcels. These seven parcels are anticipated to be acquired as part of the project. It is also noted that several parcels on the block are not included in the project area, as shown in Figure 2, including the parcel on the southwest corner of 40th Street and Telegraph Avenue, parcels that front on Telegraph Avenue (between Apgar Street and West MacArthur Boulevard), and three parcels on West MacArthur Boulevard. The project would also include access improvements to the MacArthur BART station.

EXISTING CONDITIONS: The project site is approximately 8.4 acres and is comprised of the MacArthur BART parking lot, the MacArthur BART plaza, Frontage Road, and seven privately owned parcels. The BART parking lot, a surface parking lot with approximately 600 parking spaces, occupies the majority of the project site. There are several structures included in the project site that front on Telegraph Avenue and West MacArthur Boulevard. These structures vary in height, and contain residential and commercial uses. Parcels that comprise the project site are not included in the Hazardous Waste and Substances Sites (Cortese) List; however, other hazards or hazardous waste, not included in the Cortese List, may be located on the project site.

PROJECT SPONSOR: MacArthur Transit Community Partners, LLC

PROJECT DESCRIPTION: The proposed MacArthur Transit Village project would include five buildings with up to 675 high-density multi-family housing units. These units would include below market rate rental units equal to 20 percent of the market rate units constructed as part of the project. For example, if 562 market rate units are constructed, 113 below market rate units would be included in the project, for a total of 675 units. Additionally, the project would include up to 34,000 square feet of ground-floor neighborhood serving retail and 5,000 square feet of community space.

All buildings would be between 55 to 65 feet above ground depending on the location of the building within the project site. Commercial square footage would be dispersed throughout the project site, including ground floor space fronting on West MacArthur Boulevard, Telegraph Avenue, and 40th Street. The BART parking lot would be set back against the freeway along West MacArthur Boulevard. Figure 3 shows a conceptual site plan and drawing of the proposed project.

The project would include 700 to 775 residential, retail and community use parking spaces and 300 BART parking spaces. BART currently has approximately 600 spaces dedicated for exclusive BART parking purposes. The project would reduce exclusive BART parking by approximately 50 percent. Full replacement of BART commuter parking will also be analyzed as part of the EIR.

The proposed project also includes several public infrastructure upgrades, including a new public street through the site off of Telegraph Avenue, a proposed traffic light at West MacArthur Boulevard and the Garage Entry Drive, the renovation of the existing BART entry plaza, intermodal improvements, a new intermodal area, and a new public plaza adjacent to the retail space. The potential impact of a Residential Parking Permit Program, as proposed by the project sponsor, will also be evaluated within the EIR.

This project has been revised and changed since the original NOP was circulated in February/March 2006. The table below outlines the differences between the 2006 project and the currently proposed project (2007 Project).

Table 1: Comparison of 2006 Project to Current Project (2007 Project)

	2006 Project	2007 Project
Number of Units	800 Units	Up to 675 Units
Commercial/Community Space	30,000 square feet	Up to 39,000 square feet
Total Parking Spaces	1,330 spaces	1,000 – 1,075 spaces
Exclusive BART Parking Spaces	300 spaces	300 spaces
Maximum Height	22 Stories	6 Stories
Residential Parking Permit Program	YES	YES

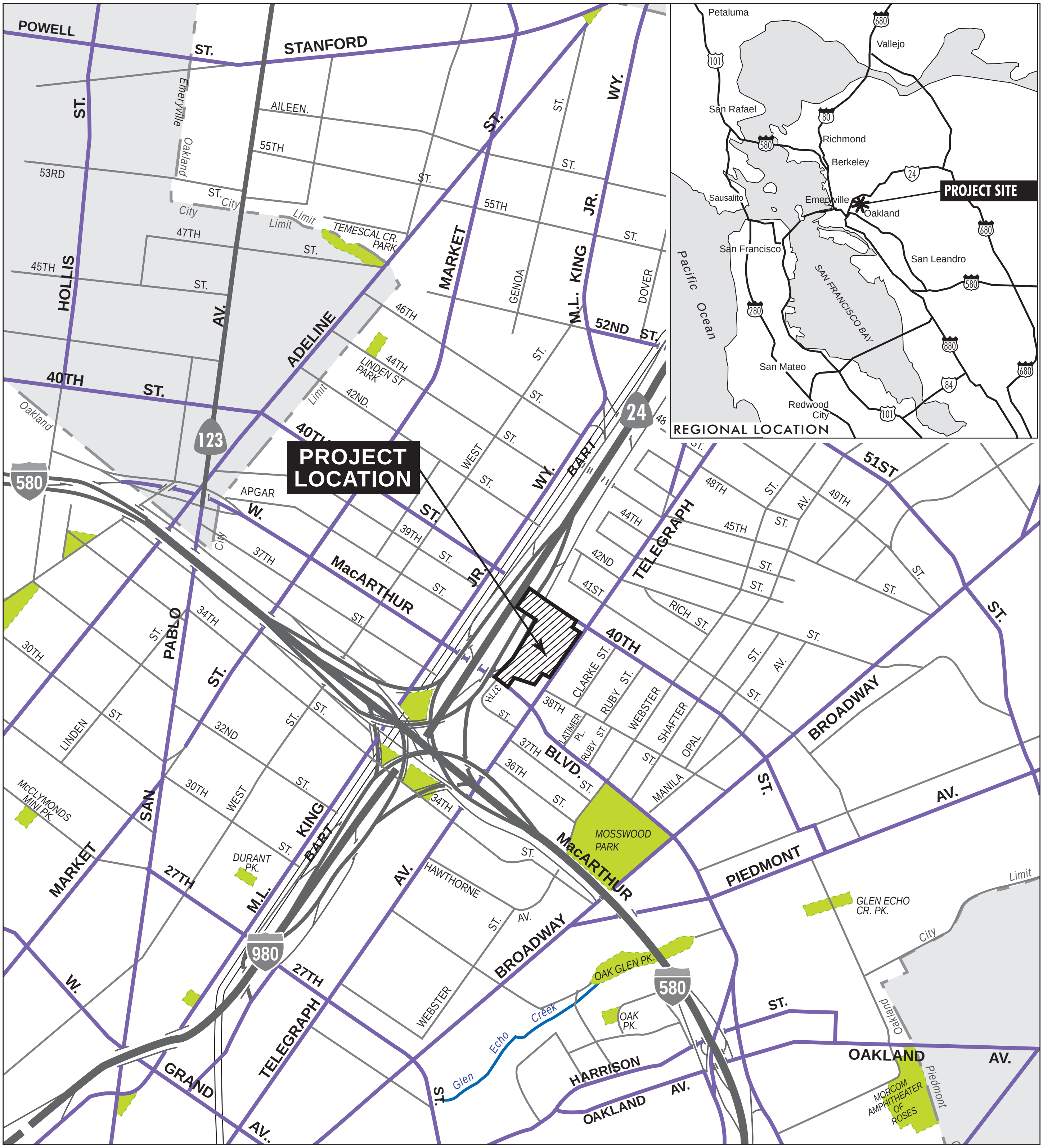
Actions/approvals by the City or Redevelopment Agency that may be necessary for this project include without limitation: rezoning; design review, conditional use permit; development agreement; tree removal; grading; and an owner participation agreement.

The Draft EIR will also examine a reasonable range of alternatives to the project, including the CEQA-mandated No Project Alternative and other potential alternatives that may be capable of reducing or avoiding potential environmental effects.

Information for the proposed project can be found at the following website:
http://www.oaklandnet.com/government/ceda/revised/planningzoning/MajorProjectsSection/macarthur.html

June 13, 2007 — Gary Patton
File Number ER060004 — Environmental Review Officer

Attachments
Figure 1: Project Location and Regional Vicinity Map
Figure 2: Project Site Map
Figure 3: Conceptual Site Plan and Drawing



LSA

FIGURE 1

N

0 1000 2000

FEET

LEGEND

PROJECT AREA

MacArthur Transit Village Project

Project Location and

Regional Vicinity Map

SOURCE: CALIFORNIA STATE AUTOMOBILE ASSOCIATION, 2000.

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LSA

FIGURE 2

LEGEND

PROJECT AREA

BART PLAZA

PARCEL LINES

N

0 75 150

FEET

MacArthur Transit Village Project

Project Site Map

SOURCE: CITY OF OAKLAND, 2006.

I:\MGB0701 macarthur bart\NOP\figures\Fig_2.ai (06/12/07)

LSA

FIGURE 3

MacArthur Transit Village Project
Conceptual Site Plan
and Drawing

SOURCE: CITY OF OAKLAND, 2007.

I:\MGB0701 macarthur bart\NOP\figures\Fig_3.ai (6/12/07)

Wagner, Charity L.

From: swbelcher@msn.com
Sent: Wednesday, June 13, 2007 3:38 PM
To: Charity Wagner
Subject: Mac Arthur Transit Village NOP

Please include the impact of helicopters servicing Children's Hospital. They are frequent and very loud. There maybe a problem in the permit process when the heli pad was originally authorized.
Steve Belcher, 5333 Locksley Ave. Oakland Ca

2

-----Original Message-----
From: Karen Dere [mailto:girlabout@gmail.com]
Sent: Friday, June 15, 2007 5:38 PM
To: Kleinbaum, Katherine (Kathy)
Subject: ER060004- MacArthur Transit Village Project

Hi Kathy & Charity,

I still feel like this project is a really bad idea. I don't think we need more dense housing in an already crime-ridden area. It would help the area tremendously to clean up all of the random hotels around Mac Arthur BART. It would also help to do better and more focused business development.

I have lived in the lower Rockridge/Temescal area for about the past 10 years. The direction that development is taking is causing me to save my money so I can move out of this area. I may disagree with many of my neighbors, but I feel that smaller family homes are what make neighborhoods a better place to live-not transit villages.

675 residential units is still WAY too many when you factor in cars (please believe, even if you don't provide parking, people are still going to have cars). And a residential parking program is going to be a mess. I like where I currently live because I don't have to search around too much for parking and I can usually park within a block of my house. I think this would all change if there were 1000+ more people living in the neighborhood. I understand developers need to make their money back, but PLEASE have some of the interests of the neighbors in mind when approving this mess.

Thank you,
Karen Dere

3

From: RBishop747@aol.com [mailto:RBishop747@aol.com]
Sent: Tuesday, June 19, 2007 6:11 PM
To: Kleinbaum, Katherine (Kathy)
Cc: standnorthoakland@gmail.com; dug_johnson@yahoo.com
Subject: Re: Revised Notice of Preparation for the MacArthur Transit Village P roject

Kathy,

I am glad to see that there is still progress being made on the BART hole. The lack of improvement for pedestrian and bicycle access at the BART main entry is very disturbing. It seems the designers still desire to add a two way street enhancing motorist access and add yet another barrier to pedestrian bicycle access.

How long do we need to cater to motorist DROP ME OFF AT THE FRONT DOOR requirements? They would be better served if the street were pedestrian and bicycle friendly and they walked from Telegraph. If the street was lined with little shops for coffee, bagels and other goods they would be enticed to walk the distance instead of being dropped off and further increasing the motor vehicle congestion and danger at the BART pedestrian, bicycle entry. Pedestrian type planning would also improve the vitality of the area by putting feet on the street.

This subject has risen several times and there seems to be a deaf ear, no reception. I do hope that we can make some progress on this issue in the coming meetings and plan for a more walkable, bikable, livable community.

I am attaching a picture from your documents to show the congestion area and a link for a recent article from an American Institute of Architects publication.
http://www.aia.org/aiarchitect/thisweek07/0504/0504p_bike.cfm

Sincerely,

Ron Bishop - Architect - AIA
Bishop Architecture
Bicycle Safety Instructor - LCI
[510] 652-4667

4

EAST BAY
MUNICIPAL UTILITY DISTRICT

June 22, 2007

Charity Wagner, Contract Planner
City of Oakland
Community and Economic Development Agency
250 Frank H Ogawa Plaza, Suite 3315
Oakland, CA 94612-2033

Re: Revised Notice of Preparation of a Draft Environmental Impact Report for the MacArthur Transit Village Project, Oakland.

Dear Ms. Wagner:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the revised Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the MacArthur Transit Village Project located in the City of Oakland (City). EBMUD's March 8, 2007 response (see enclosure) to the City regarding the February 2006 NOP of a Draft EIR for the MacArthur Transit Village Project still apply.

If you have any questions, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

for WRK

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:TNS:sb
sb07_154.doc

Enclosure

cc: MacArthur Transit Village Comty Partner, LLC
130 Webster Street, Suite 200
Oakland, CA 94607

EAST BAY
MUNICIPAL UTILITY DISTRICT

March 8, 2006

Natalie Fay, Senior Transportation Planner
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Notice of Preparation of a Draft Environmental Impact Report - MacArthur Transit Village Project - Oakland

Dear Ms. Fay:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of Draft Environmental Impact Report (EIR) for the MacArthur Transit Village Project located in the City of Oakland. EBMUD has the following comments.

WATER SERVICE

Pursuant to Section 15083.5 of the California Environmental Quality Act Guidelines, and Section 10910-10915 of the California Water Code, a Water Supply Assessment (WSA) will be required, as the entire scope of the project includes at least 500 dwelling units. Please submit a written request to EBMUD to prepare a WSA. Preparation of the WSA will require that EBMUD contact the project sponsor to gather data and estimates of future water demands for the project area. Please be aware that the WSA can take up to 90 days to complete from the day the request was received.

EBMUD's Central Pressure Zone, with a service elevation between 0 and 100 feet and/or Aqueduct Pressure Zone, with a service elevation between 100 and 200 feet, will serve the proposed development. Main extensions, at the project sponsor's expense, will be required to serve the proposed development. Off-site pipeline improvements, also at the project sponsor's expense, may be required to meet domestic demands and fire flow requirements set by the local fire department. Off-site pipeline improvements include, but are not limited to, replacement of existing water mains to the project site. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the proposed development. Engineering and installation of water mains, services and off-site pipeline improvements requires substantial lead-time, which should be provided for in the project sponsor's development schedule.

EBMUD owns and operates 6-inch water mains located in 39th Street and Apgar Street that provide service to EBMUD customers in the area. The integrity of these pipelines must be maintained at all times. Any proposed construction activity in 39th Street and Apgar Street needs to be coordinated with EBMUD and may require relocation of the water mains, at the project sponsor's expense.

The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste, or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. EBMUD will not install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants.

The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater. EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed, and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation or EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant is anticipated to have adequate dry weather capacity to treat the proposed wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Environmental Services Division. However, the City of Oakland's Infiltration/Inflow (I/I) Correction Program set a maximum allowable peak wastewater flow from each subbasin within the City and EBMUD agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. EBMUD prohibits discharge of wastewater flows above the allocated peak flow for a subbasin because conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above this agreed limit. The developer for this project needs to confirm with the City of Oakland Public Works Department that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. The projected peak wet weather

wastewater flows from this project need to be determined to assess the available capacity within the subbasin and confirmation included in the environmental documentation. Suggested language to include in the EIR is as follows: "The City of Oakland Public Works Department has confirmed that there is available wastewater capacity within Subbasin *(insert subbasin number here)* that is reserved for this project."

In general, the project should address the replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in I/I. Please include a provision to control or reduce the amount of I/I in the environmental documentation for this project. The main concern is the increase in total wet weather flows, which could have an adverse impact if the flows are greater than the maximum allowable flows from this subbasin.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD would request that the City of Oakland include in its conditions of approval a requirement that the project sponsor comply with the Landscape Water Conservation Section, Article 10 Chapter 7 of the Oakland Municipal Code. EBMUD staff would appreciate the opportunity to meet with the project sponsor to discuss water conservation programs and best management practices applicable to the integrated projects. A key objective of this discussion will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the project.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

, For
William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:JAJ:sb
sb06_061.doc

cc: MacArthur Transit Village Community Partners, LLC

ALAMEDA COUNTY
CONGESTION MANAGEMENT AGENCY

1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185
E-MAIL: mail@accma.ca.gov • WEB SITE: accma.ca.gov

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July 6, 2007

Ms. Charity Wagner
Contract Planner
Community and Economic Development Agency
City of Oakland Planning Division
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

SUBJECT: Comments on the Revised Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the MacArthur Transit Village Project in the City of Oakland (Case # ER060004)

Dear Ms. Wagner:

Thank you for the opportunity to comment on the Revised Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the MacArthur Transit Village project in the City of Oakland. The project site is located in North Oakland, within the block that is bounded by 40th Street, Telegraph Avenue, West MacArthur Blvd., and Highway 24. The project site is approximately 8.4 acres and includes the BART parking lot, the BART Plaza, Frontage Road between West MacArthur Blvd, and 40th Street, and seven privately owned parcels that are anticipated to be acquired as part of the project. The proposed project would include five buildings with up to 675 units of high density multi-family housing and 34,000 square feet of ground floor neighborhood serving retail and 5,000 square feet of community space. The project includes approximately 700 to 775 residential, retail and community use parking spaces and 300 BART parking spaces. BART currently has approximately 600 spaces dedicated for exclusive BART parking purposes. This project would reduce exclusive BART parking by approximately 50 percent. Full replacement of BART commuter parking will also be analyzed as part of the EIR. A potential impact of a Residential Parking Permit Program, as proposed by the project sponsor, will also be evaluated within the EIR.

The ACCMA respectfully submits the following comments:

Policy on Transit Oriented Development:

- The proposed project is included in the 2004 Countywide Transportation Plan. Regarding Transit Oriented Developments (TOD), the CMA Board adopted a set of goals and characteristics (Attachment A) on May 27, 2004. For any transportation improvements supporting a TOD project to be eligible for funding through the CMA, it must be consistent with the adopted goals and characteristics.
  - o Further, since the funds for the transportation improvements supporting the TOD projects identified through the CMA will likely be federal funds, the environmental

process may need to satisfy the National Environmental Protection Act (NEPA) requirements.

Land Use Analysis Program:

- The City of Oakland adopted Resolution No. 69475 on November 19, 1992 establishing guidelines for reviewing the impacts of local land use decisions consistent with the Alameda County Congestion Management Program (CMP). Based on our review of the NOP, the proposed project appears to generate at least 100 p.m. peak hour trips over existing conditions. If this is the case, the CMP Land Use Analysis Program requires the City to conduct a traffic analysis of the project using the Countywide Transportation Demand Model for projection years 2015 and 2030 conditions. Please note the following paragraph as it discusses the responsibility for modeling.

    - The CMA Board amended the CMP on March 26th, 1998 so that local jurisdictions are now responsible for conducting the model runs themselves or through a consultant. The City of Oakland and the ACCMA have signed a Countywide Model Agreement on March 22, 1999. The Countywide model based on Cube software, developed incorporating ABAG's socio-economic data for Projections 2005, is available to the local jurisdictions for this purpose. Before the model can be used for this project, a letter must be submitted to the ACCMA requesting use of the model and describing the project. A copy of a sample letter agreement is available upon request.

- Potential impacts of the project on the Metropolitan Transportation System (MTS) need to be addressed. (See 2005 CMP Figures E-2 and E-3 and Figure 2). The DEIR should address all potential impacts of the project on the MTS roadway and transit systems. These include SR 24, I-80, I-580, I-880, W. MacArthur Blvd, Telegraph Ave., Adeline Street, MLK Jr. Way, Shattuck Ave., 42nd Avenue, 51st Street, Claremont Avenue., as well as BART and AC Transit. Potential impacts of the project must be addressed for 2015 and 2030 conditions.
    - Please note that the ACCMA does not have a policy for determining a threshold of significance for Level of Service for the Land Use Analysis Program of the CMP. Professional judgment should be applied to determine the significance of project impacts (Please see chapter 6 of 2005 CMP for more information).

- The adequacy of any project mitigation measures should be discussed. On February 25, 1993 the CMA Board adopted three criteria for evaluating the adequacy of DEIR project mitigation measures:
    - Project mitigation measures must be adequate to sustain CMP service standards for roadways and transit;
    - Project mitigation measures must be fully funded to be considered adequate;
    - Project mitigation measures that rely on state or federal funds directed by or influenced by the CMA must be consistent with the project funding priorities established in the Capital Improvement Program (CIP) section of the CMP or the Regional Transportation Plan (RTP).

  The DEIR should include a discussion on the adequacy of proposed mitigation measures relative to these criteria. In particular, the DEIR should detail when proposed roadway or transit route improvements are expected to be completed, how they will be funded, and what would be the effect on LOS if only the funded portions of these projects were assumed to be built prior to project completion.

- Potential impacts of the project on CMP transit levels of service must be analyzed. (See 2005 CMP, Chapter 4). Transit service standards are 15-30 minute headways for bus service and 3.75-15 minute headways for BART during peak hours. The DEIR should address the issue of transit funding as a mitigation measure in the context of the CMA's policies as discussed above.

- The DEIR should also consider demand-related strategies that are designed to reduce the need for new roadway facilities over the long term and to make the most efficient use of existing facilities (see 2005 CMP, Chapter 5). The DEIR should consider the use of TDM measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service. Whenever possible, mechanisms that encourage ridesharing, flextime, transit, bicycling, telecommuting and other means of reducing peak hour traffic trips should be considered. The Site Design Guidelines Checklist may be useful during the review of the development proposal. A copy of the checklist is enclosed (Attachment B).

- The Alameda Countywide Bicycle Plan was approved by the ACCMA Board on October 26, 2006. The EIR should consider opportunities to promote countywide bicycle routes identified in the Plan. The approved Countywide Bike Plan is available at http://www.accma.ca.gov/pages/HomeBicyclePlan.aspx

- For projects adjacent to state roadway facilities, the analysis should address noise impacts of the project. If the analysis finds an impact, then mitigation measures (i.e., soundwalls) should be incorporated as part of the conditions of approval of the proposed project. It should not be assumed that federal or state funding is available.

Thank you for the opportunity to comment on this Notice of Preparation. Please do not hesitate to contact me at 510/836-2560 ext. 24 if you require additional information.

Sincerely,

Saravana Suthanthira
Senior Transportation Planner

cc: Diane Stark, Senior Transportation Planner, ACCMA
file: CMP - Environmental Review Opinions - Responses - 2007

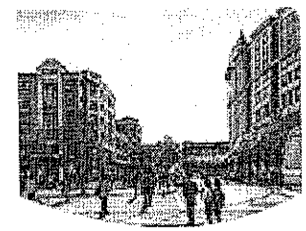
Attachment A

ALAMEDA COUNTY CONGESTION MANAGEMENT AGENCY

What's New & Upcoming Projects | Projects | Doing Business with CMA | Meetings | Reoccurring Reports

About | FAQs | Links | Contact Us | Site Map | Home

Register Your Company Information with ACCMA | RFPs/Bids 12 Month Forecast

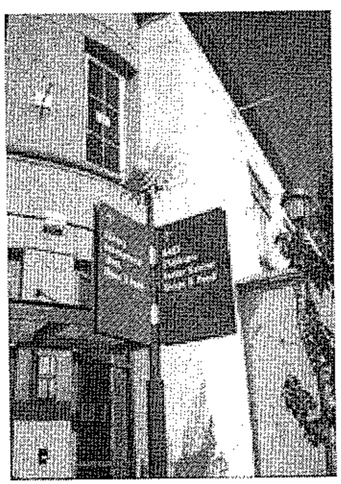


Tranportation and Land Use

Introduction | Policies & Legislation | TOD Sites | Issues & Opportunities | Resources | Contact Us

POLICIES & LEGISLATION

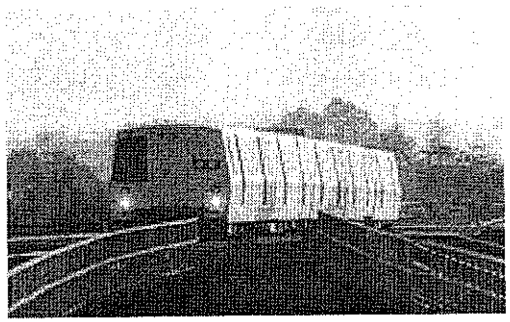
CMA's Transportation and Land Use Goals adopted by CMA Board



- **Mobility, Livability and Transit Support**
  Enhance community livability by promoting in-fill-transit oriented and walkable communities and compact development, as appropriate. Support the development of multi-family housing, mixed-use development, and alternative transportation adjacent to transit centers to increase mobility, reduce traffic congestion, and improve opportunities for all members of the community.
- **Local and Regional Transportation Efficiencies**
  Promote opportunities for transit use and alternative modes of transportation including improved rail, bus, high occupancy vehicle systems, and ferry services as well as enhanced walking and biking. Increase connectivity between and strengthen alternative modes of transportation, including improved rail, bus, rideshare and ferry services as well as walking and biking. Promote investments that adequately maintain the existing transportation system and improve the efficiency of transportation infrastructure.
- **Infrastructure Investments**

Improve and maintain existing infrastructure and support future investments that promote smart growth, including access improvements to transit.

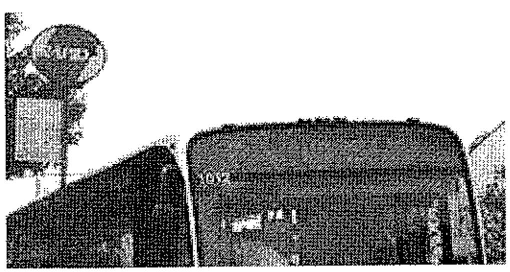
Characteristics Needed for Effective Transit-Oriented Development



Transit-Oriented Development (TOD) is residential or mixed–use development designed and located to make transit use as attractive and convenient as possible. Mixed use would include primarily housing, with neighborhood serving retail at the home end of a commute to a large employment center. The transportation goal of Transit-Oriented Development is to provide transportation options and improve accessibility, resulting in reduced automotive emissions by increasing the share of trips that can be made conveniently by transit, walking or bicycle. This goal acknowledges that transit's ability to attract riders and mitigate the growth of the congestion hinges on supportive land use. The Effective Characteristics of Transit Oriented Development are guidelines for selecting projects likely to meet these goals. However, each TOD project needs to be reviewed with allowance for features that would likely meet these goals. Transit may include one or more modes, including BART and commuter rail stations, bus trunklines and ferry stations.

Development Concept: Owner- and renter-occupied housing and small, localserving businesses are co-located in a planned community that has been designed for convenient walk, bicycle and transit access.

Design Attributes: A mixed-use development of moderately high density with continuous sidewalks and convenient access to trunkline transit. Uses are transit-oriented, not auto-oriented. Moderately high density is needed to create convenient walk and bicycle access, affordability and the buying power needed to support neighborhood-scale commercial services. Primarily housing, with neighborhood serving retail.



TOD Locations: Two components of location are important for maximum transit use: 1) Proximity to one or more of the following: BART or commuter rail station, trunkline bus routes or ferry stations, and 2) proximity to home end of the commute to the urban core. Proximity to transit may be defined as location within one-third mile of a transit station or trunkline bus route or ferry station. Proximity to home end of commute to major urban centers to which commuters have a propensity to use transit is important. As travel patterns change and infrastructure expands, travel to urban centers may change. Frequency of transit service should be taken into consideration in determining TOD location.

TOD Residents: Typically middle, moderate and lower-income households. Some TODs orient to singles, others to seniors. Housing Mix: Townhouses, condominiums, apartments and high density single family residential, both for lease and sale. Minimum average net housing density is 25 units per acre, with a preference for 40 units per acre or more. Affordability: TOD housing units are designed to include a mixture of affordability of households with middle, moderate and lower-incomes.

Residential Parking: For each residential development within a Transit Oriented Development, a parking ratio goal of 1.5 parking spaces to 1 residential unit is encouraged to be included in base condominium prices and standard rental agreements. This is not intended to be a minimum parking ratio goal. Parking for additional cars may be purchased as an add-on or upgrade, but is not bundled into the base price of housing units. This increases TOD affordability for households that are likely transit users of car sharing patrons.

Commercial Uses: Commercial uses are those that do not encourage autooriented uses. These uses include, but are not limited to local-serving, neighborhood–scale businesses such as a child-care or senior center, a café, bakery, coffee shop, delicatessen, grocery, pharmacy or dry cleaners. A proven arrangement is walk-in commercial at street level with apartments above.

Commercial Parking: Commercial parking is located behind Main-Street businesses and/or beneath apartments and condominiums. Its location is convenient, but does not compromise the TOD's priority emphasis on walkability. Commercial parking requirements in the TOD would be a significant reduction of the jurisdiction's previous zoning requirements for a similar commercial use. Furthermore, shared parking should be encouraged.

Street and Streetscape: Streets and streetscapes are designed to slow motor-vehicle traffic while creating shade and visual interest for pedestrians and safety for bicyclists. The pedestrian environment is designed with particular attention to the safety of children and seniors.

Local Transit and Car Sharing Services: Local Transit and Local bus and car sharing services connect the TOD Car Sharing Services with local employment centers, transit transfer centers, social amenities and public services, such as health clinics, senior centers, schools and universities, family youth and child care centers, parks and libraries.

Attachment B

Design Strategies Checklist
for the
Transportation Demand Management Element
of the
Alameda County CMP

The Transportation Demand Management Element included in the 2003 Congestion Management Program requires each jurisdiction to comply with the "" Required Program". This requirement can be satisfied in three ways: 1) adoption of "Design Strategies for encouraging alternatives to auto use through local development review" prepared by ABAG and the Bay Area Quality Management District; 2) adoption of new design guidelines that meet the individual needs of the local jurisdictions and the intent of the goals of the TDM Element or 3) evidence that existing policies and programs meet the intent of the goals of the TDM Element.

For those jurisdictions who have chosen to satisfy this requirement by Option 2 or 3 the following checklist has been prepared. In order to insure consistency and equity throughout the County, this checklist identifies the components of a design strategy that should be included in a local program to meet the minimum CMP conformity requirements. The required components are highlighted in bold type and are shown at the beginning of each section. A jurisdiction must answer Yes to each of the required components to be considered consistent with the CMP. Each jurisdiction will be asked to annually certify that it is complying with the TDM Element. Local jurisdictions will not be asked to submit the back-up information to the CMA justifying its response; however it should be available at the request of the public or neighboring jurisdictions.

Questions regarding optional program components are also included. You are encouraged but not required to answer these questions. ACTAC and the TDM Task Force felt that it might be useful to include additional strategies that could be considered for implementation by each jurisdiction.

CHECKLIST

Bicycle Facilities

Goal: To develop and implement design strategies that foster the development of a countywide bicycle program that incorporates a wide range of bicycle facilities to reduce vehicle trips and promote bicycle use for commuting, shopping and school activities. (Note: an example of facilities are bike paths, lanes or racks.)

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

Local Responsibilities:

1a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

1a.1 provides a system of bicycle facilities that connect residential and/or non-residential development to other major activity centers?
Yes No

1a.2 bicycle facilities that provide access to transit?
Yes No

1a.3 that provide for construction of bicycle facilities needed to fill gaps, (i.e. gap clure), not provided through the development review process?
Yes No

1a.4 that consider bicycle safety such as safe crossing of busy arterials or along bike trails?
Yes No

1a.5 that provide for bicycle storage and bicycle parking for (A) multi-family residential and/or (B) non-residential developments?
Yes No

1b. How does your jurisdiction implement these strategies? Please identify.
Zoning ordinance
Design Review
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Pedestrian Facilities

Goal: To develop and implement design strategies that reduce vehicle trips and foster walking for commuting, shopping and school activities.

Local Responsibilities

2a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that incorporate the following:

2a.1 that provides reasonably direct, convenient, accessible and safe pedestrian connections to major activity centers, transit stops or hubs parks/open space and other pedestrian facilities?
Yes No

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

2a.2 that provide for construction of pedestrian paths needed to fill gaps, (i.e. gap closure), not provided through the development process?

Yes No

2a.3 that include safety elements such as convenient crossing at arterials?

Yes No

2a.4 that provide for amenities such as lighting, street trees, trash receptacles that promote walking?

Yes No

2a.5 that encourage uses on the first floor that are pedestrian oriented, entrances that are conveniently accessible from the sidewalk or transit stops or other strategies that promote pedestrian activities in commercial areas?

Yes No

2b. How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance
Design Review, such as ADA Accessibility Design Standards
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Transit

Goal: To develop and implement design strategies in cooperation with the appropriate transit agencies that reduce vehicle trips and foster the use of transit for commuting, shopping and school activities.

Local Responsibilities

3a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

3a.1 provide for the location of transit stops that minimize access time, facilitate intermodal transfers, and promote reasonably direct, accessible, convenient and safe connections to residential uses and major activity centers?

Yes No

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

3a.2 provide for transit stops that have shelters or benches, trash receptacles, street trees or other street furniture that promote transit use?

Yes No

3a.3 that includes a process for including transit operators in development review?

Yes No

3a.4 provide for directional signage for transit stations and/or stops?

Yes No

3a.5 that include specifications for pavement width, bus pads or pavement structure, length of bus stops, and turning radii that accommodates bus transit?

Yes No

3.b How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance
Design Review
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Carpools and Vanpools

Goal: To develop and implement design strategies that reduce the overall number of vehicle trips and foster carpool and vanpool use.

Local Responsibilities:

4a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

4a.1 For publicly owned parking garages or lots, are there preferential parking spaces and/or charges for carpools or vanpools?

Yes No

4a.2 that provide for convenient or preferential parking for carpools and vanpools in non-residential developments?

Yes No

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

4.b How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance
Design Review
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Park and Ride

Goal: To develop design strategies that reduce the overall number of vehicle trips and provide park and ride lots at strategic locations.

Local Responsibilities:
5a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

5a.1 promote park and ride lots that are located near freeways or major transit hubs?

Yes No

5a.2 a process that provides input to Caltrans to insure HOV by-pass at metered freeway ramps?

Yes No

5b. How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance
Design Review
Standard Conditions of Approval
Capital Improvement Program
Specific Plan
Other

Note: Bold type face indicates those components that must be included the "Required Program" in order to be found in compliance with the Congestion Management Program.

Gmail
talk BETA

Charity Wagner <charity.wagner@gmail.com>

ER060004

1 message

Ruth Treisman <ruthiescafe@yahoo.com> **Thu, Jul 12, 2007 at 3:40 PM**
To: Charity.Wagner@lsa-assoc.com

Dear Charity,

6

As we discussed briefly on the telephone last evening, I am writing to you to express my concerns about the proposed MacArthur Transit Village project that will affect both directly and indirectly, as I have property in the neighborhood, including my current home and office on 38th Street, as well as the building on the corner of 40th Street and Telegraph Avenue.

The indirect impact on my neighborhood appears to be fairly straightforward: increased traffic and parking problems, a potential for a giant "shadow" from any extremely tall buildings, and greater density for the surrounding area. Because there may and probably will be some compensating factors for the neighborhood, I prefer not to dwell on this part, since I imagine other neighbors will have some opinions of their own. The only thing I need to say about the parking issue is what I have been saying all along: reducing the number of spaces available to BART riders is an extremely poor idea. There are simply not enough BART stations to accomodate the number of future riders, many of whom will choose to use their cars, rather than a long commute consisting of walking up and down hills, then catching a bus to BART, then catching BART, then (possibly) catching another bus or walking again at the other end. It is not akin to the transit systems in New York or Paris, or even Rio de Janeiro, all of which I am familiar with and have enjoyed using, mainly because they are integrated systems with many metro stops in each city. We are not that lucky!

The part that will affect me directly is two-fold: during the construction phase of the project, which will probably be a minimum of two years, and after the completion of the project.

During the construction phase, it will be difficult, if not impossible, to rent the eleven apartments on the second and third floors, ten of which I have been renting for $1200 to $1600 per month (various sizes of one-bedrooms), and one studio for $1100 per month. At this time, the apartments are relatively clean and quiet, with lots of light and views of either downtown Oakland or the surrounding neighborhood, depending on location, and are very comfortable to live in, according to my tenants.

Once the construction begins, there will be uncomfortable amounts of noise and dirt entering the apartments, all of which will certainly interfere with the "quiet enjoyment" of anyone living in them, not to mention making it extremely unlikely that any new people will be interested in renting the ones that are (or will become) available. Most, if not all, of the current or future tenants (meaning the ones to whom I might rent between now and the beginning of construction) will be impacted negatively, probably enough to want to move out. This will impact extremely negatively on my income during the construction phase.

I am currently in the process of negotiating with commercial tenants, for both the restaurant space on the Telegraph side and the corner retail space, with a door on Telegraph, but much of the actual floor space along 40th Street. We have not yet finished our negotiations, and the potential Transit Village project has a great deal of impact on these rentals as well. At the moment it is difficult to quantify, since I have not yet finalized the contracts, but I will update you as soon as possible.

The second way in which this will impact my building directly will be after the construction phase, in terms of the current light and air that enter almost all of the apartments--all but two one-bedrooms and the one studio have windows (in some cases quite a few windows) that overlook the parking lot and/or the south side of the building, all of which will be impacted by placing five-story buildings in the area which currently has a maximum height of one story, and in the case of the commercial space closest to the BART station, as well as the apartments on the west side, nothing to impede either light or air from entering the ground-floor or second and third-floor windows. This extremely long sentence was to say the following: almost none of the apartments and one of the three commercial spaces will no longer have access to the light that they currently enjoy.

I sent a letter to Natalie Fay on March 15, 2006 (actually I hand-delivered twenty-five copies of it the Oakland Planning Commission meeting of that date), and I would like to know if you ever received it. I will email you another copy of it by tomorrow, just in case, but it would be nice to know what was done with the many copies...

The other aspect of the construction work that will affect my building is the fact that there is currently a recorded easement with the former owner of the building directly next door that allows either owner to walk on and repair the joint roof that stretches from the lower part of my second-floor apartments across the expanse of the next-door building (which is only one story). It is a single roof in order to protect the sides of the two properties from water damage, trash buildup, and other problems caused by having two closely related, but not adjoining walls (there are two or three inches of space between the two buildings, so the single roof protects both properties). If the current plan, which includes razing the building next door to mine, is implemented, it may make it much more difficult to maintain the side of my building in the future, as well as causing damage to the edges of the roof, and possibly to the south wall of the commercial area as well. I am extremely concerned about this impact, as I am trying to maintain my building and make it more attractive.

My other concern, which I am just now beginning to realize, it that it will be extremely difficult, if not impossible to perform the necessary maintenance on the entire south side of the building, which depends on the ability to place ladders and scaffolding on what is currently empty land for the most part. Depending on what is built and where it is built, it may become impossible to repaint, repair windows, or perform the many tasks associated with keeping the building in good repair. I have been able to do so until now (and I have owned the building for over eight years, so it has certainly been a necessity at times) because all the areas where my building and my property line have abutted the neighboring property are either open land, with easy access, or the previously-mentioned adjoining roof. The side of the building under that roof may or may not need maintenance, but it is currently protected from the elements. Any future ability to protect or repair or maintain the sides adjacent to the new construction will be abridged or prevented completely by the close proximity that is a real possibility.

For all of these reasons, and more which you are no doubt becoming aware, I am not very happy about the project. What I would like to request is the following:

1. Compensation for lost rental income during the periods before, during and after the construction phase (the before is because I usually rent to people who want to enjoy the current situation for a number of months without disruption, and they may not wish to rent, knowing that the construction will begin in less than a year).

2. Adequate parking for the BART patrons, including a number of parking spaces for my residential and commercial tenants and myself (approximately twenty spaces).

3. Plan the structures to include more than the minimum space between the new buildings and my

building, and allocate some portion of land for my
use, both as a buffer zone to allow light and air to
be retained for the apartments and one commercial
space, and for my use as a garden area or outdoor area
for my tenants and myself. It can either be deeded to
me directly, or I can accept an easement for unlimited
future usage, either of which would help to compensate
for the loss of light and air in the current plans.

Please do not hesitate to contact me; I would like to
show you the actual structure of the building, how it
is impacted by the proposed changes, and how I have
put a great deal of myself into maintaining and
beautifying the neighborhood for a number of years. I
appreciate the opportunity to talk further.

Yours truly,

Ruth Ellen Treisman
(510)428-2872

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CHARLES E. TOOMBS
cet@mcinerney-dillon.com

7

July 11, 2007

Via Overnite Express

Charity Wagner, Contract Planner
Community and Economic Development Agency
City of Oakland
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Revised Notice of Preparation ("NOP") of a Draft Environmental Impact Report
MacArthur Transit Village Project
Case Number ER060004
Public Comments submitted on behalf of Ruth Ellen Treisman
Owner of Record of 505 40th Street, Oakland, CA

Dear Ms. Wagner:

This office represents Ms. Ruth Ellen Treisman, owner of 505 40th Street, Oakland. I am enclosing the following:

1. A copy of the Revised Notice of Preparation ("NOP") of a Draft Environmental Impact Report, MacArthur Transit Village Project.

2. A copy of my letter as sent to your predecessor, Natalie Fay in response to the original Notice of Preparation that was issued on February15, 2006.

3. A supplemental submission dated March 15, 2006 also submitted in response to the original Notice of Preparation issued on February 15, 2006.

Your Revised NOP reflects a slightly different project (chiefly in the removal of the 22 story towers, the reduction of the number of units from 800 to 675 units, an increase in the total square footage allocated toward commercial/community space from 30,000 to 39,000 square feet, and a reduction in the number of parking spaces. However, the responses I initially submitted on behalf of Ms. Treisman are still relevant to the current Revised NOP. Accordingly and out of an abundance of caution, I am re-submitting them for inclusion into the public record on this project as you prepare its EIR.

Please take appropriate steps to add this material to the body of public comment. Please feel free to call or write with immediate questions or comments.

Very truly yours,

McInerney & Dillon, P.C.

Chuck

Charles E. Toombs

CET:tlf

Enclosures

cc: Ruth Ellen Treisman

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McINERNEY & DILLON
PROFESSIONAL CORPORATION
1999 Harrison Street, Suite 1700
OAKLAND, CALIFORNIA 94612-4700

TELEPHONE (510) 465-7100
FACSIMILE (510) 465-8556

FAX COVER SHEET

DATE: March 15, 2006

TO: (510) 238-6538

FAX NO.: Natalie Fay

COPY TO:

FAX NO.:

CASE NO.:

FROM: Chuck Toombs

Page 1 of 6 total pages

Original to follow by mail: Yes ✓ No__

If copy is illegible or incomplete, please telephone (510) 465-7100 and ask for Chuck Toombs.

SUPPLEMENTAL MESSAGES

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CHARLES E. TOOMBS
cet@mcinerney-dillon.com

March 15, 2006

Via Email nfay@oaklandnet.com
Telecopier (510) 238-6538 and U.S. Mail

Natalie Fay, Senior Transportation Planner
Community and Economic Development Agency
City of Oakland
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Notice of Preparation ("NOP") of a Draft Environmental Impact Report
MacArthur Transit Village Project
Public Comments submitted on behalf of Ruth Ellen Treisman
Owner of Record of 505 40th Street, Oakland, CA

Dear Ms. Fay:

This office represents Ms. Ruth Ellen Treisman, owner of 505 40th Street, Oakland. Earlier today, we submitted a letter dated March 15, 2006 in response to your NOP setting forth concerns of Ms. Treisman regarding the MacArthur Transit Village Project. Ms. Treisman provided us with an additional letter which she indicates she sent to your office shortly after we sent our original comments. Out of an abundance of caution, we are sending her most recent letter as well for your consideration and for inclusion into the record as you prepare the EIR for the Project. Please call or write with questions or comments.

Very truly yours,

McInerney & Dillon, P.C.

Chuck

Charles E. Toombs

cc: (via Email and U.S. Mail) Ruth Ellen Treisman

Subject: emailing: plngcomm06
From: "Ruth Treisman" <ruthiescafe@earthlink.net>
Date: Wed, 15 Mar 2006 14:21:25 -0800
To: "Charles E. Toombs" <cet@mcinerney-dillon.com>

Your files are attached and ready to send with this message.

— Ruth Treisman
— ruthiescafe@earthlink.net
— EarthLink: The #1 provider of the Real Internet.

plngcomm06.wpd	**Content-Description:**	plngcomm06.wpd
	Content-Type:	application/octet-stream
	Content-Encoding:	base64

Natalie Fay
Case Planner for MacArthur Transit Village Project
City of Oakland

March 15, 2006

Dear Natalie Fay,

The following is a copy of some material that I wrote and initially sent to my attorney, Charles Toombs, but I would like to send it directly to you today, March 15, 2006, as well. Please understand that I realize that the project may or may not happen, but I need to get my objections on record in the event that it does happen.

I have also thought of some other arguments, and specific needs since writing the original letter. I realize that the reason for any transit village is to encourage people to be less car-dependent and more public-transit oriented, which I would normally applaud, but this particular situation is a little different from the ones in cities like New York and Paris, where there are numerous transit points, both subway (metro) stops and bus stops that serve people from all walks of life. Here in the Bay Area, and particularly in Oakland, there are only a few BART stations, with infrequent and inconvenient bus service. Therefore, many people who live a mile away from a BART station will naturally drive to the station and park in the parking lot. This is unlikely to change quickly and easily, if at all. My complaint about the idea of 800 additional living units is that there will most likely be more than 800 additional cars, at least the same number of cars of BART commuters that there are currently, and possibly a lot more cars caused by roommates, visitors, and family members of the occupants of the new apartments, as well as patrons and customers of the businesses that are also planned. The parking situation will be dreadful as a result.

My other concern not mentioned specifically in the original letter is that my building is connected to the building next door by a single roof. The previous owner and I created a recorded easement to allow either of us to repair the roof as needed, and to walk on any part of it, if necessary. This roof protects the side of the two properties from water damage, trash buildup, and any other situation caused by having two adjacent but not adjoining walls. If the plan goes forward in such a way as to raze the next-door building, it will become necessary to cut through the roof, and quite possibly create some problems for the exterior siding and roof edges of my building. I would like to request that the developers take some responsibility for any repairs that may need to be done, and for some method that I can be able to maintain that side (and all sides) of my building in the future. This is another reason that I am unhappy with the idea of any buildings being built in close proximity to mine. It makes any maintenance or repair more difficult, if not impossible!

The rest of my concerns are expressed in the following letter (see next page):

Charles E. Toombs
Law Offices of McInerney & Dillon
1999 Harrison Street - Suite 1700
Oakland, CA 94612-4700

March 13, 2006

Dear Charles,

Here are my thoughts about the MacArthur Transit Village project:

The most obvious and clearly maddening part of the project is the apparent lack of planning and understanding of the needs of the neighborhood in which it is to be a part. By this I mean the idea of reducing the BART parking spaces from 600 to 300 spaces, knowing that parking in the immediate area is already negatively impacted by people parking in the neighborhoods when commuters cannot find parking in the BART parking lot. The so-called planners seem to think that adding more restrictive parking to the mix will help; it will merely cause more problems, as the commuters search frantically for a place to put their cars on the way to work. I live about six blocks from the BART station, and have a number of friends and neighbors who are angry about this idea, as am I. This is a clear indication of how little these planners truly understand the needs of the neighborhood, and of the citizens of Oakland.

The second part of the lack of planning is the idea that the current businesses and property owners in the actual affected area (and I include my building) have no right to complain about the plans which will certainly affect them negatively in two ways. It will affect them temporarily during the pre-planning, planning and construction phases, either by eliminating their businesses completely (if their buildings are torn down), or by creating so much noise and dirt in close proximity to the business (or in my case any apartments that I may wish to rent)that "business as usual" becomes impossible. I called both the City of Oakland contact (Kathy Kleinbaum) and the BART contact (Deborah Castles), and expressed my outrage that the plan was conceived with so little regard for current property and business owners, and was told, essentially, that my needs were not a priority, and that I "should have known that this project was going to happen" before I bought the building. I did not know, nor would most reasonable people think to ask if a BART station or parking lot, which appeared to be a permanent fixture, would be changing at any time in the near future. I found out about the possible plans by calling BART to see if I could rent or use the area of trees and plants between the parking lot and my property to make a public park, with picnic tables and walkways, which I would have maintained, and was told that the City of Oakland and BART would be doing a project that would include that area. This was in 1999, and they have not yet needed to use it; I could have been using it all this time!!

The most upsetting part of the apparent lack of planning is actually after the project is completed. Instead of planning for the open space to coincide with the current reality of openness around my three-story building, which is the only building taller than one story in the area under discussion, they plan to surround my building with five-story buildings on the two sides not facing a busy street, and essentially place my beautiful jewel, on which I have spent a great deal of time, energy, and money to restore and beautify, in a dark and unpleasant hole, cutting off the sunlight, air, views, and sense of space that is currently available. It seems almost painfully obvious that the planners, who seem to think they are entitled to do whatever they want to the neighborhood and the current occupants and business owners, have not chosen to consider placing the wide public thoroughfare and public gardens around my building, where it might mitigate some of the difficulties I am facing. Since the plan seems to call for razing all of the other structures except my building, it seems obvious that my needs and wishes could certainly be taken into account, and the planning could include reasonable sensitivity to the only building left standing.

My mission from the beginning, and the reason that I bought the building at 505-40th Street, has been to create a community center of sorts, with live jazz, artwork, a small cafe and deli, perhaps a corner store with the kinds of food items that people leaving work and returning home would want, such as bread, milk and produce, but with an emphasis on quality (such as fresh baked goods). I envisioned a sort of mini-Market Hall, smaller and not as upscale as the one in Rockridge, but appealing to a group of people who value freshness and quality, and who like music and art and a sense of community. This can still be accomplished, but it will be almost impossible to interest tenants in staying in a building that is not only a few feet away from a construction zone (and right outside their windows, for the most part), but who will soon be living in a dark, cold, cave-like atmosphere instead of having a beautiful, sunny, warm, airy vista to look at daily.
Therefore, if the project is to move forward, I would like to ask for three specific things:

1. Rethink the parking situation, and add rather than subtract BART parking, as well as adding adequate parking for the residents and customers of the new (and old) mixed-use properties.

2. Compensate my lost rental income during the periods of loss; this may include (although not be limited to) the period for the nine months prior to any actual construction (as my leases are for one-year periods), as well as the period during and immediately after the construction itself, until it is clear that it no longer impacts on my ability to attract good tenants.

3. Plan the structures so that the public space, roadway, walkway, etc., are located around my building, so that the tallness of the five-story buildings is somewhat less of a problem, and redesign the buildings, so that the tallest parts are somewhat removed again, by creating a sort of stair-step pattern, with the lowest part (perhaps one story) immediately closest to the public space around my property, and then gradually getting taller as the distance increases.

These three factors would greatly reduce my opposition to the project as it is currently presented, and would probably be better for the neighborhood as a whole.
Thank you for your kind attention to these matters of the environmental impact on the neighborhood.

Yours truly,

Ruth Ellen Treisman,
Neighborhood resident, property owner (505-40th St.) and business owner

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	0193
RECIPIENT ADDRESS	15102386538
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ST. TIME	03/15 17:24
TIME USE	02'39
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FAX COVER SHEET

DATE: March 15, 2006

TO: (510) 238-6538

FAX NO.: Natalie Fay

COPY TO:

FAX NO.:

CASE NO.:

FROM: Chuck Toombs

Page 1 of 6 total pages

Original to follow by mail: Yes ✓ No__

If copy is illegible or incomplete, please telephone (510) 465-7100 and ask for Chuck Toombs.

SUPPLEMENTAL MESSAGES

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Date: March 15, 2006

To: Natalie Fay
Senior Transportation Planner
City of Oakland
(510) 238-6538

cc: Ruth E. Treisman
(510) 654-8512

From: Charles E. Toombs, Esq.

Number of pages transmitted (including this page): 19

If copy is illegible or incomplete, please telephone (510) 465-7100 and ask for Linda M. Love

Original to follow: Yes X No__

Subject: **MacARTHUR TRANSIT VILLAGE PROJECT**
Owner of Record of 505 40th Street, Oakland California
Our File No. TREI-4601

SUPPLEMENTAL MESSAGES

C:\Wp51\CHUCK\Fax -NFAY re Treisman Proj.wpd

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CHARLES E. TOOMBS
cet@mcinerney-dillon.com

March 15, 2006

Via Certified Mail/Return Receipt Requested

Natalie Fay, Senior Transportation Planner
Community and Economic Development Agency
City of Oakland
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Via Facsimile (510) 238-6538
E-Mail nfay@oaklandnet.com

Re: Notice of Preparation ("NOP") of a Draft Environmental Impact Report
MacArthur Transit Village Project
Public Comments submitted on behalf of Ruth Ellen Treisman
Owner of Record of 505 40th Street, Oakland, CA

Dear Ms. Fay:

Ms. Treisman has engaged our firm to advise her on the impact of the MacArthur Transit Village Project (the "Project") on her three-story, mixed use commercial and residential building located at 505 40th Street, on the southwest corner of Telegraph and 40th Street (the "Treisman Property"). The Treisman Property consists of street-level commercial property, coupled with two floors of residential apartments above it, and it is specifically excluded from the footprint of the Project.

Enclosed please find the following material submitted on behalf of Ms. Treisman for your review and consideration in response to the NOP soliciting public comment on the terms and conditions of the Project and the Draft Environmental Impact Report ("EIR"):

1. Case File Number: ER060004 accompanying Oakland City Planning Commission Agenda dated March 15, 2006, containing the recommendations of your Staff with respect to the scope of the EIR;

2. A letter dated March 13, 2006 that Ms. Treisman sent to me via email, separately stating her concerns about the scope of the EIR.

The balance of this letter will further explore these concerns.

Overview

It is apparent that the Project will make a major contribution towards the redevelopment of Oakland, and we applaud efforts by the City of Oakland to increase the quality of urban living in and around this wonderful old neighborhood. However, construction of a project of this magnitude will have a major impact on the current property owners and, in particular, on the Treisman Property, which is immediately adjacent to, but excluded from, the footprint of the Project. Your Staff has identified most of the major concerns which are discussed and reflected in Case File Number ER060004, linked to the Agenda dated March 15, 2006, of the Oakland City Planning Commission. The Case File contains a comprehensive listing of the nature and quality of the issues affecting the Project in general and Ms. Treisman in particular. We wish to see each of those issues of concern adequately addressed in the EIR; both as they apply to the Project as a whole, and as they apply to the Treisman Property.

Ms. Treisman is also terribly concerned that the Project, as currently proposed, will adversely affect the Treisman Property by, and among other things: (i) limiting available parking both during and after the Project's construction; (ii) by causing major interruptions with her ability to rent both commercial space and residential units therein during the construction phase, which may well diminish her use and income from the property; and (iii) by potentially surrounding the Treisman Property with massive five-story structures that will envelope and dwarf it without regard to the context of the Treisman Property or the adjoining neighborhood.

Accordingly, Ms. Treisman wishes to insure that the EIR carefully address those issues identified by your staff as reflected on the Case File Number, and other issues which she has identified in her enclosed letter, as such issues affect the continued integrity and value of the Treisman Property.

I. Case File Number: ER060004 Accompanying Oakland City Planning Commission Agenda dated March 15, 2006.

Case File Number ER060004 contains a thoughtful Project Description and Background, with a discussion of the Scoping Session set for March 15, along with a discussion on what your Staff have identified as a preliminary list of environmental and project issues that the City will evaluate in the EIR and during the review of the Project. We formally request that the EIR carefully review each and every item in the Case File, and in particular, those items specifically identified by your staff on the Preliminary List at pages 5 and 6, both as they apply to the Project, and all adjoining neighborhoods as a whole and as they apply to the Treisman Property in particular, and that the EIR incorporate by reference and adequately address each and every item therein as areas of concern to Ms. Treisman for purposes of this public comment.

We also hope that efforts to develop the Project in conformity with the General Plan and Zoning for the neighborhood effectively result in the creation of a Project that is both exciting and creative in its new space, but also carefully respects the context of the pre-existing neighborhood and integrates itself with the pre-existing structures not otherwise designated as part of the project in general and with Ms. Treisman's project in particular.

Finally, Ms. Treisman requests that the City of Oakland engage the adjacent neighborhood in a comprehensive, meaningful, regular, and continuing dialogue regarding the scope of the Project, its design and the impact the Project will have on both these adjacent neighbors as well as the City of Oakland as a whole as it proceeds with the design of the Project. These neighbors in general (and Ms. Treisman in particular) will be directly impacted by the Project and it is crucial to the successful development of the Project that their voice be heard and respected.

II. Concerns of Ms. Treisman

I am enclosing a copy of a letter dated March 13, 2006, from Ms. Treisman which expresses her concerns over the Project. I ask that the CEDA adequately address each of the concerns set forth in her letter in addition to those concerns above in the EIR. The following is a summary of her concerns.

A. <u>Parking Solutions</u>

At the outset, Ms. Treisman is extremely concerned about the lack of adequate parking and a proposed decision to reduce the number of BART parking spaces from 600 spaces to 300 spaces in the face of an existing, immediate and pressing parking crisis arising from the current lack of adequate parking. This lack of parking already causes problems for the adjacent neighborhood, including the Treisman Property. Assuming that the Project only provides adequate parking for the residential users and a moderate amount of parking for customers of the commercial tenants, the net effect of this decision is to reduce the number of allowable commuter spaces for BART by 300 spots, resulting in over 300 additional drivers who must look for adequate parking space, flooding the neighborhood in their quest for parking. This will impact already diminished parking for users of the Treisman Property, and will create a problem that dramatically increase, if for any reason, the parking for the new Project is inadequate for the users of the Project or their guests.

B. Impact of Project Construction on the Customers and Tenants of Adjacent Property Owners

Ms. Treisman also has reservations about the impact that the proposed construction will have on adjacent businesses who must either sell their properties within the Project footprint to the City or whose businesses will be negatively impacted by the ongoing construction as the clientele is unable to access their stores. Ms. Treisman accurately details the impact that prolonged construction will have on her ability to generate rental income from her commercial and residential tenants and fears that she may lose the ability to rent her premises and be left with having to pursue the City of Oakland for lost income due to the construction of the Project and its prolonged interference with her business.

Ms. Treisman is also concerned about the impact that a new structure and its lengthy construction schedule will have on her plans to build a localized commercial and art center designed to meet the needs of the community adjacent to the BART lot.

C. Design Details

We have reviewed the original plan documents from the City's Request for Proposals, MacArthur BART Station Transit Village, Oakland California, prepared by the City of Oakland Redevelopment Agency and the San Francisco Bay Area Rapid Transit District prepared in the fall of 2003 (the ("RFP"). We note that diagrams which accompany the RFP initially include the Treisman Property and other properties to the south of the proposed Project within the footprint of the Project. Such a design makes sense because it effectively gives the City of Oakland a larger site and a clean fresh palette for design and construction of a project of this scope and magnitude. However, the current design documents specifically carve out the Treisman Property as well as other properties south of the Project boundary. This may result in the creation of a new project which may or may not take into account the neighboring properties and which, in the absence of careful and thoughtful planning, may result in the five stories and two multi-storied towers of the new Project effectively dwarfing the existing and excluded sites as well as creating a visual incongruity between the two sets of property. This will have the effect of ruining the aesthetics of both the existing surviving properties and the new Project unless careful thought is given to how best to integrate the two groups of property into one neighborhood.

In this regard, it is crucial that the City of Oakland make every effort to insure that the Project adequately fit into the proposed site and be built to a property scale that does not dominate the adjacent property sites or the Treisman Property. Ms. Treisman is quite concerned that the proposed five-story project will be immediately adjacent to and otherwise abut immediately against her structure, effectively dwarfing her older building with new structures that rise to five stories immediately adjacent to her and which also contains separate twenty-plus structures within its own boundaries, all of which may be built without regard to the neighborhood context. Ms. Treisman asks that some of the proposed open space within the interior of project be relocated so that it is adjacent to her property, providing a buffer zone and a more seamless transition between the two sites as a whole.

Likewise Ms. Treisman wishes to see the Project designed so that perhaps it steps back from her three story building to its own projected height in a more gradual terraced slope rather than simply have an immediate and visually offensive increase by placing a five-story modern building next door to her three-story structure built in 1918. The Treisman Property reflects a style of building that is a direct link to Oakland's historic past, and it is hoped that the Project takes this style of architecture into account in creating a complementary architectural design for the Project with a corresponding scope and magnitude. As one critic and planner states, "(T)he secret to shaping an attractive urban landscape is the attention paid to how the pieces fit together–how they respect the street and the sky, and the quality of the materials and design." John King *Edgy New Buildings needn't clash with Bay Area Downtowns* San Francisco Chronicle, March 7, 2006 at D-1. Ms. Treisman hopes that the City of Oakland adopts wholeheartedly both the spirit and meaning of these words as it creates a new space and asks that the EIR take into account the needs to design a project that is sensitive to her building both in design and in scale.

III. Summary

Ms. Treisman wishes to see each of the staff recommendations set forth in the Case File Number: ER060004 carefully considered in the preparation of the EIR in respect to both the Project as a whole and in respect to her property in particular. Additionally, as indicated in the attached letter, Ms. Treisman is not adverse to construction of the Project; however, she does wish to see it developed so as to adequately address her concerns over parking. Further, Ms. Treisman does not wish to have the construction of the property interfere with her ability to lease space in her building and may seek compensation for lost income from the City of Oakland in the event that the EIR fails to provide adequate safeguards to protect her commercial interests in owning and operating her rental property. Finally, Ms. Treisman asks that any design of the Project takes into account the location of her property, that it be sensitive to her property's location, that open spaces be created around her property to serve as a buffer between the Project and her property, and that the Project does not dwarf her property or abut so closely to it as to diminish its character and quality.

Please carefully review this letter and the enclosed material and call or write with questions or comments.

Very truly yours,

McInerney & Dillon, P.C.

Chuck

Charles E. Toombs

CET/lml

Enclosure

cc: Ruth Ellen Treisman (w/enc)
(via Email ruthiescafe@earthlink.net)
(U.S. Mail)

Location:	**MacArthur BART Station (also includes properties on Telegraph from Apgar to 40th Street, excluding the corner parcel at 40th and Telegraph) See map on the reverse.**
Proposal:	MacArthur Transit Village – Scoping Session to receive comments for a Draft Environmental Impact Report (DEIR) regarding the proposal to construct a transit village on the 6.84 acre site, including 800-units of housing and 30,000 square feet of commercial space.
Applicant:	Deborah Castles, MacArthur Transit Community Partners, LLC. / (510) 273-2002
Owner:	San Francisco Bay Area Rapid Transit
Case File Number:	ER060004, Pud06058, Rz06059
General Plan:	Neighborhood Center Mixed Use
Zoning:	R-70 (High Density Residential); C-28 (Commercial Shopping District); S-18 (Mediated Residential Design Review Combined Zone)
Environmental Determination:	Staff has determined that an Environmental Impact Report (EIR) must be prepared for this project. A Notice of Preparation to prepare the EIR was published on February 15, 2006. The comment period for the NOP ends on March 16, 2006.
Service Delivery District:	2 – North Oakland
City Council District:	1
Staff Recommendation:	Receive public and Commission comments about what information and analysis should be included in the EIR.
For further information:	Contact Kathy Kleinbaum at (510) 238-7185 or by e-mail at kkleinbaum@oaklandnet.com

SUMMARY

MacArthur Transit Community Partners, LLC. (MTCP) has filed an environmental review application to begin review and consideration of the MacArthur Transit Village project. The project site is approximately 6.84 acres, the majority of which is currently occupied by the MacArthur BART station parking lot, a surface parking lot with approximately 600 parking spaces. The project site also includes 4 one-story commercial parcels that front on Telegraph Avenue between Apgar Street and 40th Street.

The MacArthur Transit Village project proposes the construction of approximately 800 units of high-density multi-family housing, 30,000 square feet of ground-floor neighborhood serving retail and community space, and 1330 off-street parking spaces, including 300 spaces designated solely for BART patron use. The proposed project also includes several public infrastructure upgrades, including a new public street through the site off of Telegraph Avenue, the renovation of the existing BART entry plaza, intermodal improvements, and a new public plaza adjacent to the retail space. As part of the project, the applicant has requested that the project be Rezoned and a Preliminary Development Plan be considered by the City.

#1

(Contains map showing the project site and general vicinity)

The City will be the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and the land use and project approvals. As such, the City has the responsibility to prepare an Environmental Impact Report (EIR) for the project. The Notice of Preparation (NOP) was published on February 15, 2006 (see Attachment A). This scoping session is being held to solicit public and Commission comments on what information and analysis should be contained in the EIR. In addition to these oral comments, written comments will be accepted until March 16, 2006. Written comments are encouraged in order to provide an accurate record of public comments.

PROJECT DESCRIPTION AND BACKGROUND

Project Background
The City has been working jointly with BART and community in a planning process for the development of the MacArthur Transit Village since 1993. The MacArthur BART Station is located in the Broadway/MacArthur/San Pablo Redevelopment Project Area. The Redevelopment Agency and BART selected a development team for this project in April 2004 through a competitive Request for Proposals process. The development team, MacArthur Transit Community Partners, LLC (MTCP), is a limited liability company that consists of a partnership between Aegis Equity Partners, Shea Properties, and BUILD (BRIDGE Urban Infill Land Development, LLC). However, it is only recently (February 5, 2006) that applications for rezoning, preliminary development plan approval, and environmental review were submitted and the environmental review process initiated.

Existing Land Uses
The 6.84 acre project site includes the surface BART parking lot and 4 one-story commercial parcels, currently in private ownership, that front the parking lot on Telegraph Avenue between Apgar Street and 40th Street. The 3-story residential building located at the corner of 40th Street and Telegraph is not included within the project site. The BART parking lot is currently sunken approximately 1.5 levels below street level.

Proposed Project
MTCP's proposal for the MacArthur Transit Village project includes six buildings with approximately 800 units of high-density multi-family housing and 30,000 square feet of ground-floor neighborhood-serving retail and community space. Approximately 20 percent of the units would be below market rate, with the remainder of the units being for-sale condominiums. The residential buildings along Telegraph Avenue and 40th Street would be five stories tall, and would include four stories of housing above ground-floor retail. Set back against the freeway in the rear of the BART parking lot are two residential towers, one 20-story and one 22-story in height.

The project includes approximately 1,030 parking spaces for the residential, retail, and community use. Additionally, the project includes the replacement of 300 of the 600 existing BART parking spaces on site. As part of the proposed project, a Residential Parking Permit Program, covering a ¼ mile radius around the project site, would be implemented to alleviate spillover parking impacts on the surrounding neighborhood. The proposed project also includes several public infrastructure upgrades, including a new public street through the site off of Telegraph Avenue, the renovation of the existing BART entry plaza, intermodal improvements, and a new public plaza adjacent to the retail space.

Land Ownership
Approximately 5.9 acres of the project site is owned by BART. BART entered into a three-party Exclusive Negotiating Agreement with MTCP and the Redevelopment Agency to explore the disposition of their property to the development team for the purpose of developing the MacArthur Transit Village project. The remaining 0.95 acres of the property are privately held commercial properties.

Project Phasing
MTCP proposes to develop the project in several phases over a four-year period between 2008 and 2012. The development will begin with the construction of a parking podium for the replacement BART parking and the parking for the residential and retail components of the project and the project infrastructure. The housing and retail construction will begin after the podium is complete.

Project Review Process and Entitlements
The project sponsor is requesting a rezoning to a Transit Village Zoning District, approval of Preliminary and Final Development Plans, subdivision approval, design review approval, and other permits that may be necessary. In addition, approvals or permits may also be required from other agencies for activities such as demolition of structures, site remediation, tree removal permits, and possible other activities.

Environmental Review Process
The environmental impact report will address potential environmental impacts associated with construction and operation of the proposed project including construction of the project and obtainment of all necessary zoning, grading and building permits, and any other discretionary actions required by the City of Oakland and other governmental agencies.

PURPOSE OF THIS SCOPING SESSION

The main purpose of this scoping session is to solicit comments from both the Commission and the public on what types of information and analysis should be considered in the EIR. Comments about the issues that should be considered, the types of information that should be included, and the range of alternatives to the project that should be assessed are all appropriate comments. This scoping session is not a review or consideration of the merits of the project. There will be a full public process to consider the project itself.

KEY ENVIRONMENTAL AND PROJECT ISSUES IDENTIFIED TO DATE

Staff has identified the following preliminary list of environmental and project issues that the City will evaluate in the EIR and during the review of the project:

AESTHETICS:
- Relationship of site development to surrounding neighborhoods
- Mass and bulk of proposed buildings
- Height of proposed structures
- Light and glare impacts
- Shadow impacts on public spaces
- Potential wind impacts

AIR QUALITY:
- Potential dust impacts from demolition and construction activities
- Potential air quality impacts due to future increase in vehicular activity
- Exposure of sensitive receptors to toxic air contaminants

BIOLOGICAL RESOURCES
- Tree Removal

CULTURAL/HISTORIC RESOURCES:
- Potential impacts of grading activities on cultural or historical resources
- Potential impacts to paleontological resources

GEOLOGY AND SOILS:
- Soil stability and adequacy for safe development of the site
- Potential effects of earthquakes on site development

HAZARDS AND HAZARDOUS MATERIALS:
- Historic use of the project site
- Contaminated soils on project site
- Emergency response and evacuation

HYDROLOGY/WATER QUALITY:
- Capacity of stormwater drainage system
- Water quality both on and off-site due to the project
- Adequacy of on-site drainage improvements to serve the site

LAND USE AND PLANNING:
- Conformance with General Plan
- Conformance with City ordinances, including the Zoning Ordinance

NOISE:
- Potential noise impacts from demolition and construction activities
- Impacts of future residential development and proximity to BART tracks

- Impacts of future residential development and proximity to the freeway
- Impacts of project-related noise on the surrounding area

POPULATION/HOUSING:
- New residential population in this location

PUBLIC SERVICES:
- Adequacy of fire protection services, police protection services, and other public facilities
- Sufficient school capacity for children who live in the project

RECREATION:
- Park land, open space, and recreational facilities

TRANSPORTATION AND TRAFFIC:
- Existing congestion and other operations problems at the intersections in and surrounding the project area
- Congestion and operational problems on streets in and near the project area
- Congestion and operations problems on regional freeway facilities
- Impacts on pedestrian access and safety in nearby areas resulting from project-generated traffic
- Pedestrian circulation to and through the project site
- Potential vehicular and pedestrian conflicts
- Truck traffic from the site preparation and grading activities
- Multi-modal transportation links (public transportation access)
- Bike Access

UTILITIES AND SERVICE SYSTEMS:
- Adequacy of sewer infrastructure, water capacity, and energy to serve the mixed use development

GENERAL PLAN AND ZONING CONSISTENCY

General Plan Conformity
The General Plan land use classification for the project site is Neighborhood Center Mixed Use. This classification is "intended to identify, create, maintain and enhance mixed use neighborhood commercial centers. These centers are typically characterized by smaller-scale pedestrian-oriented, continuous street frontage with a mix of retail housing, office, active open space, eating and drinking places, personal and business services, and smaller scale educational cultural, or entertainment uses." The maximum allowable FAR for this classification is 4.0. The maximum residential density is 125 units per gross acre. Vertical integration of uses, including residential units above street-level commercial space, is encouraged. The project proposal conforms with the existing General Plan Designation.

The MacArthur Transit Village project proposal is supportive of several of the Transportation and Neighborhood Objectives of the LUTE including, but not limited to, the following major objectives and policies:

***Objective** T2 Provide mixed use, transit-oriented development that encourages public transit use and increases pedestrian and bicycle trips at major transportation nodes.*

***Policy** T2.1 Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city commuter rail.*

***Policy** T2.2 Transit-oriented development should be pedestrian-oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.*

***Policy** T2.3 Promote neighborhood-serving commercial development within one-quarter to one-half mile of established transit routes and nodes.*

***Objective** N3 Encourage the construction, conservation, and enhancement of housing resources in order to meet the current and future needs of the Oakland community.*

***Policy** N3.1 Facilitating the construction of housing units should be considered the highest priority for the City of Oakland.*

***Policy** N.2 In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland.*

***Policy** N3.8 High-quality design standards should be required of all new residential construction.*

Zoning Amendment
The project applicant is proposing rezoning the project site to a zone that better represents the density allowed in the General Plan classification for the area. The project site is currently zoned High Density Residential (R-70), Commercial Shopping District (C-28), and Mediated Residential Design Review Combined Zone (S-18). Approval of rezoning would require action by the Planning commission with final action by the City Council.

Broadway/MacArthur/San Pablo Redevelopment Plan
This project is located in the Broadway/MacArthur/San Pablo Redevelopment Area. The proposed project is included in the Redevelopment Plan and was included in the analysis of the Environmental Impact Report for the adoption of the Redevelopment Plan which was certified on June 7, 2000.

COMMUNITY OUTREACH

The MacArthur BART Citizen's Planning Committee (CPC) is a community group that has been meeting since 1993 to plan for the development of a transit village at the MacArthur BART Station. The development team has held several meetings with the CPC since they were selected by the Agency and BART in order to define project goals and to report on project process. A community meeting with the CPC was held on November 9, 2005 at the Mosswood Recreation Center to discuss the project proposal.

Over 600 notices announcing the release of the Notice of Preparation and the Planning Commission public hearing were sent out on February 15, 2006. A community meeting with the CPC, explaining the environmental review process, was held on February 22, 2006 at the Mosswood Recreation Center. Additionally, staff held a scoping session for interested and responsible public agencies on February 28, 2006. Staff will present a verbal summary of the Agency scoping session at the Planning Commission scoping session.

CONCLUSION

Staff requests the public and the Planning Commission to provide comments and direction on what types of information and analysis should be considered in the EIR.

Respectfully submitted:

Claudia Cappio
Development Director

Prepared by:

Kathy Kleinbaum, UEA III
Redevelopment Agency

Attachments:

A. Notice of Preparation (NOP)
B. Project Site Plans and Elevations

Subject: emailing: planning
From: "Ruth Treisman" <ruthiescafe@earthlink.net>
Date: Tue, 14 Mar 2006 18:58:18 -0800
To: "Charles E. Toombs" <cet@mcinerney-dillon.com>

Your files are attached and ready to send with this message.

— Ruth Treisman
— ruthiescafe@earthlink.net
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planning.wpd	**Content-Description:**	planning.wpd
	Content-Type:	application/octet-stream
	Content-Encoding:	base64

Charles E. Toombs
Law Offices of McInerney & Dillon
1999 Harrison Street - Suite 1700
Oakland, CA 94612-4700

March 13, 2006

Dear Charles,

Here are my thoughts about the MacArthur Transit Village project:

The most obvious and clearly maddening part of the project is the apparent lack of planning and understanding of the needs of the neighborhood in which it is to be a part. By this I mean the idea of reducing the BART parking spaces from 600 to 300 spaces, knowing that parking in the immediate area is already negatively impacted by people parking in the neighborhoods when commuters cannot find parking in the BART parking lot. The so-called planners seem to think that adding more restrictive parking to the mix will help; it will merely cause more problems, as the commuters search frantically for a place to put their cars on the way to work. I live about six blocks from the BART station, and have a number of friends and neighbors who are angry about this idea, as am I. This is a clear indication of how little these planners truly understand the needs of the neighborhood, and of the citizens of Oakland.

The second part of the lack of planning is the idea that the current businesses and property owners in the actual affected area (and I include my building) have no right to complain about the plans which will certainly affect them negatively in two ways. It will affect them temporarily during the pre-planning, planning and construction phases, either by eliminating their businesses completely (if their buildings are torn down), or by creating so much noise and dirt in close proximity to the business (or in my case any apartments that I may wish to rent)that "business as usual" becomes impossible. I called both the City of Oakland contact (Kathy Kleinbaum) and the BART contact (Deborah Castles), and expressed my outrage that the plan was conceived with so little regard for current property and business owners, and was told, essentially, that my needs were not a priority, and that I "should have known that this project was going to happen" before I bought the building. I did not know, nor would most reasonable people think to ask if a BART station or parking lot, which appeared to be a permanent fixture, would be changing at any time in the near future. I found out about the possible plans by calling BART to see if I could rent or use the area of trees and plants between the parking lot and my property to make a public park, with picnic tables and walkways, which I would have maintained, and was told that the City of Oakland and BART would be doing a project that would include that area. This was in 1999, and they have not yet needed to use it; I could have been using it all this time!!
The most upsetting part of the apparent lack of planning is actually after the project is completed. Instead of planning for the open space to coincide with the current reality of openness around my three-story building, which is the only building taller than one story in the area under discussion, they plan to surround my building with five-story buildings on the two sides not facing a busy street, and essentially place my beautiful jewel, on which I have spent a great deal of time, energy, and money to restore and beautify, in a dark and unpleasant hole, cutting off the sunlight,

air, views, and sense of space that is currently available. It seems almost painfully obvious that the planners, who seem to think they are entitled to do whatever they want to the neighborhood and the current occupants and business owners, have not chosen to consider placing the wide public thoroughfare and public gardens around my building, where it might mitigate some of the difficulties I am facing. Since the plan seems to call for razing all of the other structures except my building, it seems obvious that my needs and wishes could certainly be taken into account, and the planning could include reasonable sensitivity to the only building left standing.

My mission from the beginning, and the reason that I bought the building at 505-40th Street, has been to create a community center of sorts, with live jazz, artwork, a small cafe and deli, perhaps a corner store with the kinds of food items that people leaving work and returning home would want, such as bread, milk and produce, but with an emphasis on quality (such as fresh baked goods). I envisioned a sort of mini-Market Hall, smaller and not as upscale as the one in Rockridge, but appealing to a group of people who value freshness and quality, and who like music and art and a sense of community. This can still be accomplished, but it will be almost impossible to interest tenants in staying in a building that is not only a few feet away from a construction zone (and right outside their windows, for the most part), but who will soon be living in a dark, cold, cave-like atmosphere instead of having a beautiful, sunny, warm, airy vista to look at daily.

Therefore, if the project is to move forward, I would like to ask for three specific things:

1. Rethink the parking situation, and add rather than subtract BART parking, as well as adding adequate parking for the residents and customers of the new (and old) mixed-use properties.

2. Compensate my lost rental income during the periods of loss; this may include (although not be limited to) the period for the nine months prior to any actual construction (as my leases are for one- year periods), as well as the period during and immediately after the construction itself, until it is clear that it no longer impacts on my ability to attract good tenants.

3. Plan the structures so that the public space, roadway, walkway, etc., are located around my building, so that the tallness of the five-story buildings is somewhat less of a problem, and redesign the buildings, so that the tallest parts are somewhat removed again, by creating a sort of stair-step pattern, with the lowest part (perhaps one story) immediately closest to the public space around my property, and then gradually getting taller as the distance increases.

These three factors would greatly reduce my opposition to the project as it is currently presented, and would probably be better for the neighborhood as a whole.

Thank you for your kind attention to these matters of the environmental impact on the neighborhood.

Yours truly,

Ruth Ellen Treisman,
Neighborhood resident, property owner and business owner

****
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OAKLAND, CALIFORNIA 94612-3610
TELEPHONE: (510) 465-7100
FACSIMILE: (510) 465-8556

Date: March 15, 2006

To: Natalie Fay
Senior Transportation Planner
City of Oakland
(510) 238-6538

From: Charles E. Toombs, Esq.

Number of pages transmitted (including this page): 19

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Street, Apt. No.; or PO Box No. 250 Frank Ogawa Pl., #3315
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- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

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NATALIE FAY, SR. TRANS. P.
City of Oakland
250 Frank Ogawa Plaza,
Ste. 3315
Oakland, CA 94612

4a. Article Number

4b. Service Type
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CITY OF OAKLAND

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Community and Economic Development Agency
Planning & Zoning Services Division

(510) 238-3941
FAX (510) 238-6538
TDD (510) 839-6451

REVISED NOTICE OF PREPARATION (NOP)
OF A DRAFT ENVIRONMENTAL IMPACT REPORT
MacARTHUR TRANSIT VILLAGE PROJECT

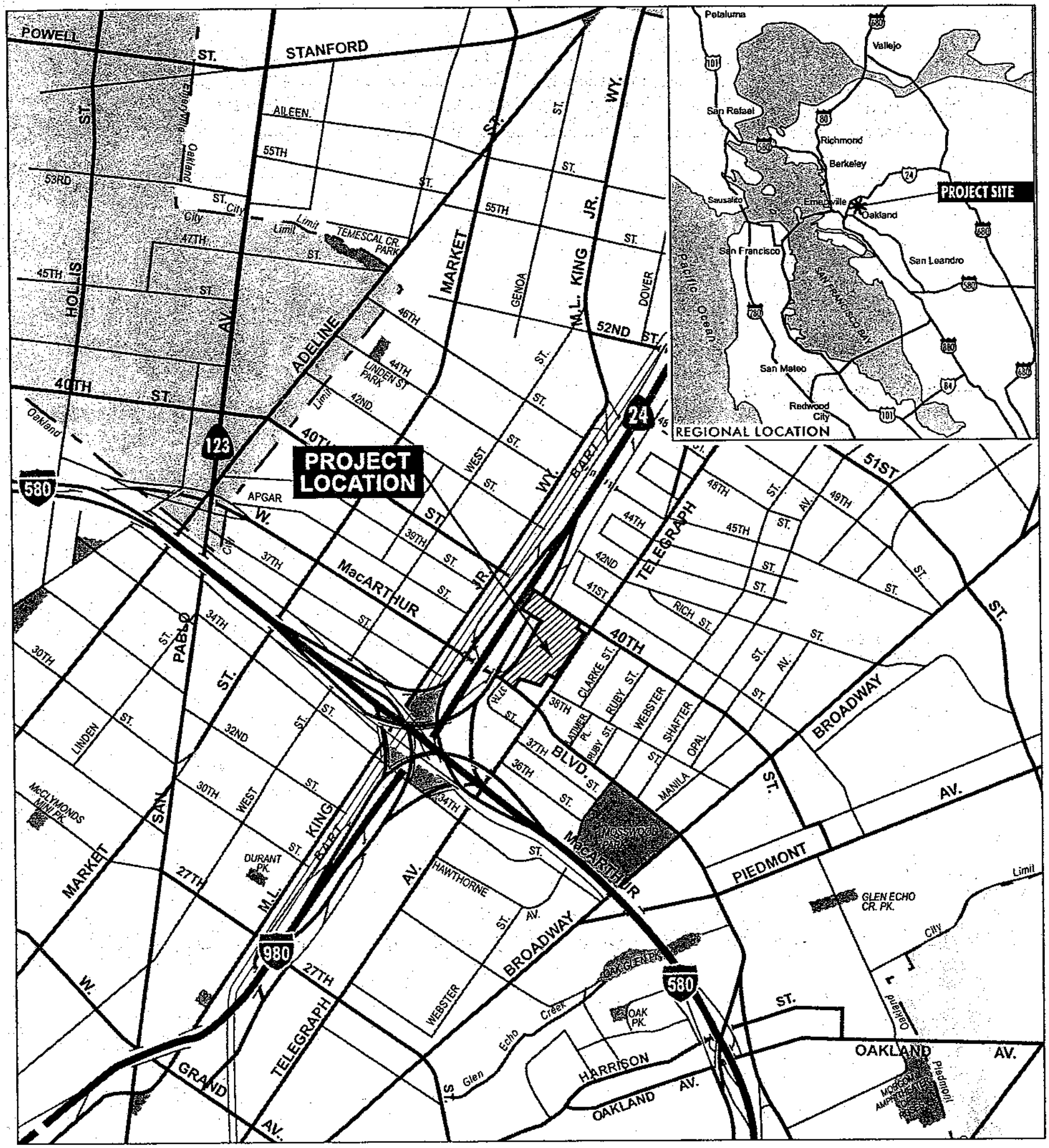
The Oakland Community and Economic Development Agency, Planning and Zoning Division, is preparing a Draft Environmental Impact Report (EIR) for the project identified below, and is requesting comments on the scope and content of the EIR. The EIR will include a discussion of potential environmental effects for each of the environmental topics included in Appendix G of the California Environmental Quality Act (CEQA) Guidelines, thus the City has not prepared an Initial Study. The City of Oakland is the Lead Agency for the project and is the public agency with the greatest responsibility for either approving the project or carrying it out. This notice is being sent to Responsible Agencies and other interested parties. Responsible Agencies are those public agencies, besides the City of Oakland, that also have a role in approving or carrying out the project. Responsible Agencies will receive a copy and use this EIR when considering approvals related to the project. Responsible Agencies include the San Francisco Bay Area Rapid Transit District (BART), as well as other public agencies. Response to this NOP and any additional questions or comments should be directed in writing to: Charity Wagner, Contract Planner, Community and Economic Development Agency, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612; 510-672-5886 (phone); 510-238-6538 (fax); Charity.Wagner@lsa-assoc.com. Comments on the NOP must be received at the above mailing or email address **on or before July 13, 2007**. Please reference case number ER060004 in all correspondence.

PROJECT TITLE: MacArthur Transit Village Project

PROJECT LOCATION: The project site is located in North Oakland, within the block that is bound by 40th Street, Telegraph Avenue, West MacArthur Boulevard, and Highway 24, as shown in Figure 1. The project site includes the BART parking lot, the BART Plaza, Frontage Road between West MacArthur Boulevard and 40th Street, and seven privately owned parcels. These seven parcels are anticipated to be acquired as part of the project. It is also noted that several parcels on the block are not included in the project area, as shown in Figure 2, including the parcel on the southwest corner of 40th Street and Telegraph Avenue, parcels that front on Telegraph Avenue (between Apgar Street and West MacArthur Boulevard), and three parcels on West MacArthur Boulevard. The project would also include access improvements to the MacArthur BART station.

EXISTING CONDITIONS: The project site is approximately 8.4 acres and is comprised of the MacArthur BART parking lot, the MacArthur BART plaza, Frontage Road, and seven privately owned parcels. The BART parking lot, a surface parking lot with approximately 600 parking spaces, occupies the majority of the project site. There are several structures included in the project site that front on Telegraph Avenue and West MacArthur Boulevard. These structures vary in height, and contain residential and commercial uses. Parcels that comprise the project site are not included in the Hazardous Waste and Substances Sites (Cortese) List; however, other hazards or hazardous waste, not included in the Cortese List, may be located on the project site.

PROJECT SPONSOR: MacArthur Transit Community Partners, LLC



LSA

FIGURE 1

LEGEND

PROJECT AREA

0 1000 2000

FEET

MacArthur Transit Village Project

Project Location and

Regional Vicinity Map

SOURCE: CALIFORNIA STATE AUTOMOBILE ASSOCIATION, 2000.

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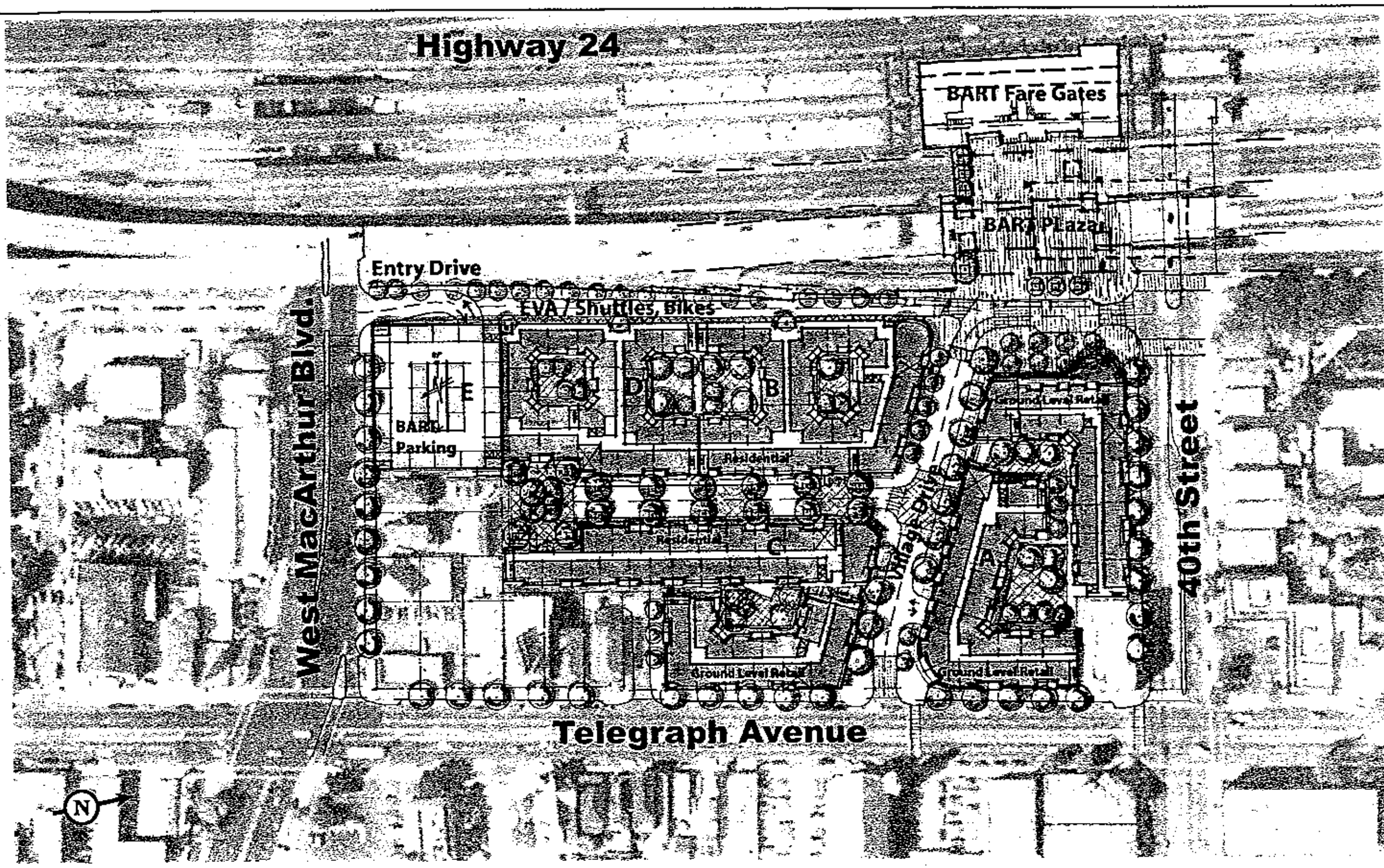
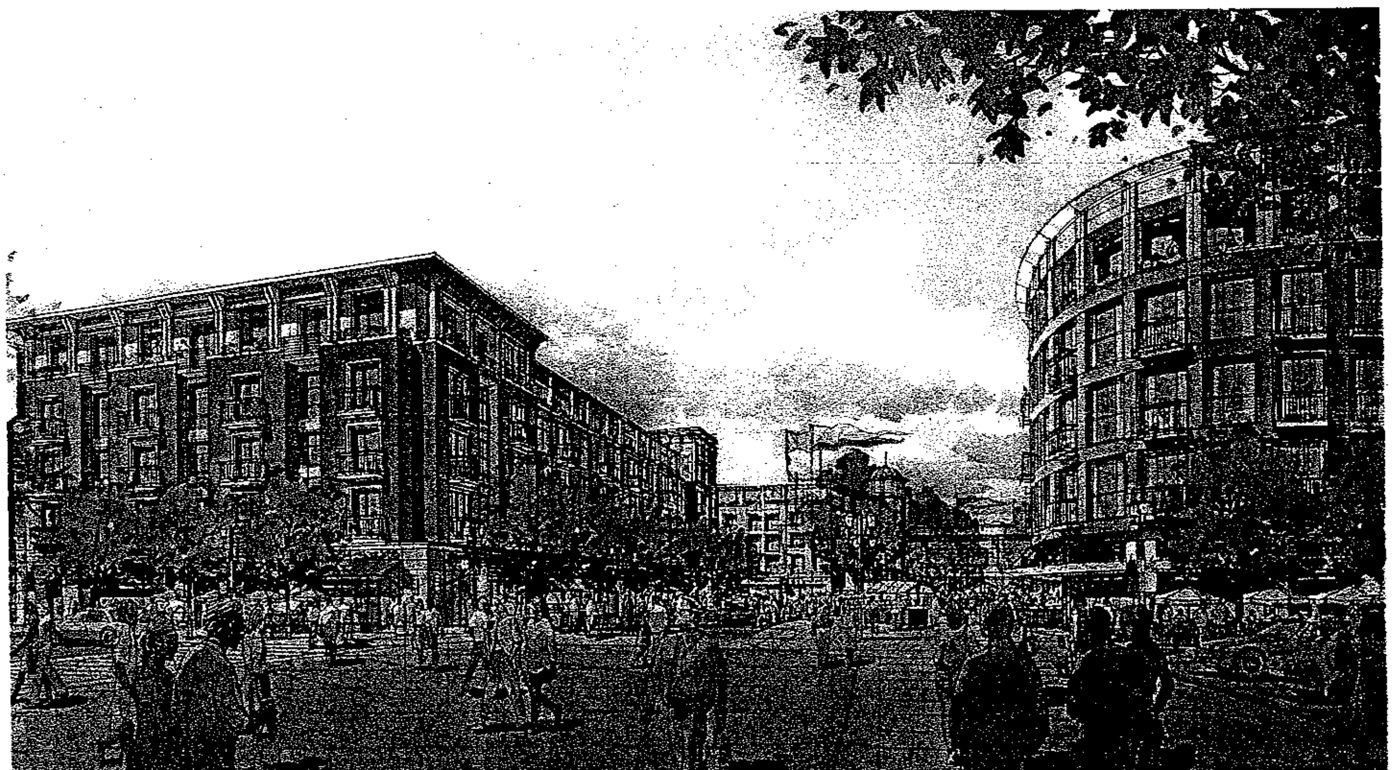




LSA

FIGURE 3

MacArthur Transit Village Project
Conceptual Site Plan
and Drawing

SOURCE: MACARTHUR TRANSIT COMMUNITY PARTNERS, LLC, 2007.

I:\MGB0701 macarthur bart\NOP\figures\Fig_3.ai (6/12/07)

8

July 12, 2007

Charity Wagner
City of Oakland
CEDA, Redevelopment Division
250 Frank Ogawa Plaza, Suite 5313

Dear Charity:

Please accept the following comments on the revised NOP for the Mac Arthur Bart Transit Village Project. I would recommend that the EIR for this project conduct the analysis and consider the mitigations outlined below.

Housing

1. Evaluate whether the project may result indirectly increased property values and rent costs in the greater Mac Arthur BART Area potentially leading, indirectly to the displacement of existing area residents or businesses.
2. Evaluate the feasibility of increasing the availability of affordable housing by requiring the developer to provide or fund BMR housing as a condition of development; or by providing a density bonus to the developer conditional on the provision of additional BMR housing.

Transportation

3. Evaluate new potential impacts on pedestrian and bicycle hazards as a result of the project.
4. Evaluate the existing area hazards of pedestrian-vehicle collisions for new project residents
5. Evaluate routes between the project and area schools, parks, and retail destinations with regards to the quality and safety of the pedestrian environment.
6. Consider the feasibility, as transportation mitigations or improvements, of the following transportation facility improvements and transportation demand management measures for the project and the area:
    a. Unbundling the cost of parking from residential rents to encourage residents to reduce their car ownership rates.
    b. Reducing the number of structured parking spaces for residential uses below a ratio of 3 spaces for 4 units.
    c. Pricing structured residential parking and area residential parking permits at the market rate.
    d. Ensuring the project is connected to the local bike network via class I or II bike lanes.
    e. Creating safe, continuous, and functional routes to Mosswood Park for MacArthur BART residents West and East of I-980 through a "green corridor" prioritizing travel for bikes, pedestrians and transit.
    f. Providing pedestrian safety engineering improvements including countdown pedestrian signal heads, bulb outs, and center median refuge

islands at high-volume multi-lane intersections along Telegraph Avenue, 40th Street, West MacArthur Boulevard.

g. Provide pedestrian warning signs or lights at all crossings or cross walks with high traffic volumes (>5000) and without traffic signal lights.
h. Institute speed limit reductions to less than 20mph in mixed-use residential areas adjacent to the project.
i. Widen sidewalks or provide buffers between sidewalks and vehicle lanes on busy roadways with significant pedestrian traffic such as 40th Street, West MacArthur, Blvd, and Telegraph.
j. Consider vehicle lane reductions on some corridors (e.g., West MacArthur , 40th Street) to simultaneously reduce and slow traffic
k. Ensuring that fencing and landscaping does not create barriers to pedestrian mobility.
l. Consider the feasibility of onsite child care center at the Mac Arthur BART Transit Village with safe indoor or outdoor play space.
m. Consider the feasibility of including at least two housing units in the village designed to function as family child care facilities.

Public School and Childcare Adequacy

7. Assess the adequacy of public school capacity in the neighborhood under the assumption that the project will ultimately attract families to the same degree as other transit villages in the region;
8. Ensure that local schools can meet project generated student demand;
9. Assess the adequacy of child care supply by age of child for the project area and the demand for childcare created by new project residents

Parks

10. Consider improvements to Grove Shafter Parks I, II, and III with added landscaping, improved playground facilities, and improved recreational amenities and public spaces to augment functional park space for existing and new project area residents.

Air Quality

11. Assess exposure to project residents to PM2.5 associated with area roadway emissions using available dispersion modeling techniques.
12. Assess exposure to project residents to Diesel PM associated with area roadway emissions using available dispersion modeling techniques.
13. If indicated by exposure modeling and health risk analysis, require, as mitigation, installing a central HVAC (heating, ventilation and air conditioning) system with high efficiency filters for particulates capable of removing 80% of fine particulate matter. Require through design guidelines, an ongoing maintenance plan for filtration system associated with HVAC.

Noise

14. Evaluate daytime and nighttime single event noise levels related to BART operations and their effects on sleep.

15. Consider, as a feasible mitigation, more frequent maintenance of BART tracks to minimize train-associated noise.

Public Safety

16. Evaluate the spatial and temporal patterns of crime and violence in the project area
17. Consider, as a project mitigation, modifiable physical and built environment elements in the project area that may contribute to crime and violence
18. Consider, as project mitigation or improvement, design guidelines that ensure adequate and pedestrian scaled lighting for all public areas, residential streets, and adjacent public streets; create clear sight lines to maximize visibility, especially for high risk areas such as parking garages, stairwells and underpasses; create public or common spaces that generate/reinforce pedestrian level activity.

Thank you for your consideration.

Rajiv Bhatia, MD, MPH
1324 Oxford Street
Berkeley California
94709
ucbhig@gmail.com

CC: Kim Gilhuly
Kathy Klienbaum
Jonathan Heller
Edmund Seto

APPENDIX B

AIR QUALITY

APPENDIX B - 1

AIR QUALITY
HEALTH RICK ASSESSMENT

HEALTH RISK ASSESSMENT
MACARTHUR TRANSIT VILLAGE PROJECT

The proposed project would construct residential units at the MacArthur BART plaza, adjacent to State Route 24 (SR-24) and Interstate 580 (I-580). Train engines that operate on the tracks are electrically powered, thus are not a source of any significant amount of toxic air contaminants (TAC). The traffic on SR-24 and I-580, as well as local streets, includes both diesel-powered vehicles which emit diesel particulate and gasoline-powered vehicles which emit a number of TACs collectively contained in the reactive organic gases (ROG) emissions, all of which the California's Office of Environmental Health Hazard Assessment (OEHHA) has determined pose cancer risks and may cause other health problems to future residents of the proposed project. LSA Associates, Inc. has completed a health risk analysis for the proposed MacArthur Transit Village project to assess the potential risk to future residents at the project site from these emissions generated by nearby traffic. The analysis considered specific meteorological conditions on the project site and the proximity of the project site to the roadways. The following discussion provides the technical background information used to determine the health risk to future residents of the project site.

General Health Risks of Toxics. Determining how hazardous a substance is depends on many factors, including the amount of the substance in the air, how it enters the body, how long the exposure lasts, and what organs in the body are affected. One major way substances enter the body is through inhalation of either gases or particulates. Diesel engine emissions contain both gases and very small particles that penetrate deeply into the lungs, contributing to a range of health problems. California's OEHHA has determined that long-term exposure to diesel exhaust particulates poses the highest cancer risk of any toxic air contaminant it has evaluated. Fortunately, improvements to diesel fuel and diesel engines have already reduced emissions of some of the contaminants. When the improvements are fully implemented it is expected that the particle emissions from diesel-powered trucks and other equipment will be reduced by 75 percent reduction by 2010 (compared to 2000 levels) and by 85 percent by 2020. Similarly, improvements have been made to significantly reduce TAC emissions from gasoline-powered vehicles, which are anticipated to continue into the foreseeable future.

There are currently no federal project-level requirements for air toxics analysis, and CEQA only requires a consideration of the risks from toxics, with the Bay Area Air Quality Management District (BAAQMD) providing the *Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants* (July 2005) for guidance. The BAAQMD has also established a maximum individual cancer risk significance threshold of 10 in 1 million (1.0×10^{-5}) (assumes the use of the best-available control technology for toxics) and a noncarcinogenic hazard index of 1.0.

Analysis of Site Specific Toxics. According to California Air Resources Board (ARB),[1] when conducting a health risk assessment (HRA), the surrogate for whole diesel exhaust is diesel particulate matter, which is used as the basis for the potential risk calculations. When conducting an

[1] Air Resources Board, 2005. http://www.arb.ca.gov/toxics/harp/docs/userguide/appendixK.pdf

HRA, the potential cancer risk from inhalation exposure to diesel PM will outweigh the potential noncancer health impacts. Therefore, inhalation cancer risk is required for every HRA. When comparing whole diesel exhaust to speciated diesel exhaust (e.g., polynuclear aromatic hydrocarbons, metals), potential cancer risk from inhalation exposure to whole diesel exhaust will outweigh the multipathway cancer risk from the speciated components. For this reason, there will be few situations where an analysis of multipathway risk is necessary.[2]

To estimate the potential cancer risk associated with TAC emissions, a dispersion model is used to translate an emission rate from a source location to a concentration at a receptor location of interest. Dispersion modeling varies from the simpler, more conservative screening-level analysis to the more complex and refined detailed analysis. This assessment, which falls into the latter category, was conducted using the ARB health risk model, HARP, which includes the EPA dispersion model ISCST3. This model provides a detailed estimate of concentrations considering site and source geometry, source strength, distance to receptor, and site specific meteorological data.

Emission Estimates. This HRA was conducted as recommended in the OEHHA Guidelines and by the ARB (HARP Model Documentation, Appendix K, Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines, ARB, Feb 2005). It consists of several steps including:

1) Determining the PM_{10} emission factor.
2) Determining the PM_{10} emission rate.
3) Determining the PM_{10} concentration at location(s) of interest.
4) Translating the PM_{10} concentration(s) to health risk values.
5) Comparing the health risk values to thresholds and determining significance.

The PM_{10} and ROG emission factors were determined by using the ARB model, EMFAC2007, for the year 2025. This year was chosen to best approximate the average emission factor over the entire period of an HRA, 70 years. Due to the anticipated technological improvements over this time period, and the higher emission levels at present, 2025 is the statistical median point for emission rates.

For purposes of this analysis, all vehicle exhaust was modeled as area sources from sources located along the nearby roadways. These extend approximately ¾ mile from the edge of the proposed project site in both directions. The PM_{10} and ROG emission rates were determined by using Caltrans traffic data for SR-24 and I-580[3], combined with data from the traffic study for this project for Telegraph Avenue. Table 1 shows the derivation of the emission rates. It shows the total average daily traffic (AADT) for each of the roadways modeled as well as the average speeds in the first column. As shown in Table 1, total AADT was broken down into four vehicle type categories: light duty autos (LDA), light duty trucks (LDT), medium duty trucks (MDT), and heavy duty trucks (HDT) and show the total emissions for that volume of vehicles at the average speed. The right three columns then total the vehicle emissions, divide by the number of modeling sources for each roadway and convert units for input into the model. For the purpose of this assessment, it is assumed that the traffic volumes are constant throughout the year.

[2] OEHHA. 2003. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Appendix D, Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Vehicles, Section B.* August.

[3] Caltrans web site: http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/, on 9/12/07

Table 1: Emission Rates

Hwy I-580	**AADT by Vehicle Category**				**Number**	**Emission Rates per source**		
	LDA	**LDT**	**MDT**	**HDT**	**of**	**g/s/m^2**	**lb/hr/m^2**	**lb/yr/m^2**
Total	201,591	1073	103	233	**Sources**			
AADT	% of Vehicles That Are Diesel-Powered							
203,000	0%	20.0%	70.0%	87.5%				
	Diesel Exhaust PM_{10} Emissions at 60 mph (g/s)							
	0	3.93E-06	1.56E-06	2.44E-05	9	1.01E-09	8.01E-09	7.02E-05
Average	% of Vehicles That Are Gasoline-Powered							
Speed	100%	80.0%	30.0%	12.5%				
60 mph	**Gasoline Exhaust ROG Emissions at 60 mph (g/s)**							
	3.26E-03	2.59E-05	1.20E-06	4.46E-06	9	1.11E-07	8.82E-07	7.73E-03
Hwy SR-24	**AADT by Vehicle Category**							
	LDA	**LDT**	**MDT**	**HDT**				
Total	100,995	1848	498	659				
AADT	% of Vehicles That Are Diesel-Powered							
104,000	0%	20.0%	70.0%	87.5%				
	Diesel Exhaust PM_{10} Emissions at 60 mph (g/s)							
	0	6.78E-06	7.52E-06	6.90E-05	14	1.81E-09	1.43E-08	1.26E-04
Average	% of Vehicles That Are Gasoline-Powered							
Speed	100%	80.0%	30.0%	12.5%				
60 mph	**Gasoline Exhaust ROG Emissions at 60 mph (g/s)**							
	1.63E-03	4.46E-05	5.80E-06	1.26E-05	14	3.68E-08	2.92E-07	2.56E-03
Telegraph Rd.	**AADT by Vehicle Category**							
	LDA	**LDT**	**MDT**	**HDT**				
Total	28,800	300	300	600				
AADT	% of Vehicles That Are Diesel-Powered							
30,000	0%	20.0%	70.0%	87.5%				
	Diesel Exhaust PM_{10} Emissions at 40 mph (g/s)							
	0	1.04E-06	4.31E-06	5.21E-05	13	1.61E-09	1.28E-08	1.12E-04
Average	% of Vehicles That Are Gasoline-Powered							
Speed	100%	80.0%	30.0%	12.5%				
40 mph	**Gasoline Exhaust ROG Emissions at 40 mph (g/s)**							
	4.66E-04	6.99E-06	3.50E-06	1.46E-05	13	1.38E-08	1.09E-07	9.58E-04

Source: LSA Associates, Inc., September 2007.

To determine the emission rates of the TACs within the ROG emissions, gasoline vehicle exhaust speciation data[4] from the ARB was used. Table 2 shows the data used.

Table 2: Gasoline Exhaust Speciation

CAS Number	**Chemical Name**	**Weight Fraction**
106990	1,3-butadiene	0.00775
71432	benzene	0.04136
100414	ethylbenzene	0.01422
91203	naphthalene	0.00308
115071	propylene	0.04254998
100425	styrene	0.00308
108883	toluene	0.07247
95476	m & p-xylene	0.05467999

Source: ARB, September 2007.

[4] ARB web site, http://arb.ca.gov/ei/speciate/speciate.htm, on 9/13/07

Receptors were placed in a general grid extending in all directions to characterize the risk level isopleths and at locations of future residences. Meteorological data from the Oakland STP[5] were used to represent the conditions at the project site. The model input and output sheets including the model grid and isopleths results are attached. Portions of the ISCST3 output file showing all model inputs and important outputs are attached. Also attached is the HARP model output listing the modeled health risks for all receptors.

Acute Emission Impacts. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant* (ARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute noncancer health risk guidance value. While the lung is a major target organ for diesel exhaust, studies of the gross respiratory effects of diesel exhaust in exposed workers have not provided sufficient exposure information to establish a short-term noncancer health risk guidance value for respiratory effects. The maximum acute hazard index is 0.00000002, which is below the threshold of 1.0. Therefore, the potential for short-term acute exposure will be less than significant.

Carcinogenic and Chronic Impacts. The results of the health risk assessment are shown in Table 3. Results of the analysis indicate that the maximum exposed individual (MEI) inhalation cancer risk associated with living at the proposed development for 70 years would be exposed to an inhalation cancer risk of 0.000402 in 1 million which is less than the threshold of 10 in 1 million. The maximum chronic hazard index is 0.0000002, which is below the threshold of 1.0.

Table 3: Inhalation Health Risks from Train Sources

	Carcinogenic Inhalation Health Risk	Chronic Inhalation Health Index	Acute Inhalation Health Index
MEI onsite	0.00040	0.0000002	0.00000002
Threshold	**10 in a million**	**1.0**	**1.0**

Source: LSA Associates, Inc., 2007.

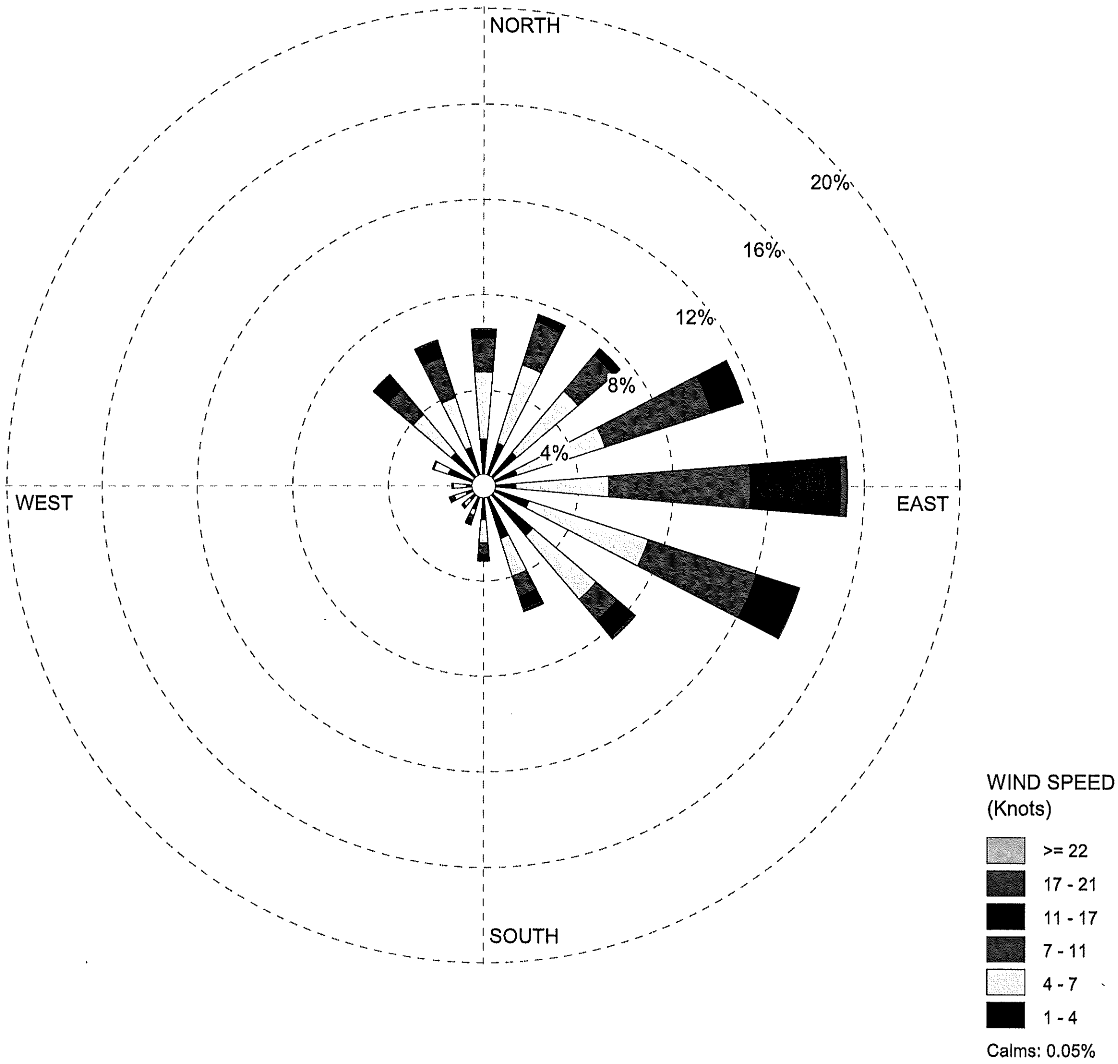
[5] http://www.baaqmd.gov/tec/data/

WIND ROSE PLOT:

Oakland STP
from BAAQMD web site 9/12/07

DISPLAY:

Wind Speed
Flow Vector (blowing to)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
Actually 2000 data, HARP will not allow entering "00" as the met year, so changed to 2001.	**2001** **Jan 1 - Dec 31** **00:00 - 23:00**	**LSA Associates, Inc.**	
		MODELER: **Ronald Brugger**	
	CALM WINDS: **0.05%**	TOTAL COUNT: **8784 hrs.**	
	AVG. WIND SPEED: **6.71 Knots**	DATE: **9/14/2007**	PROJECT NO.: **MGB0701**

WRPLOT View - Lakes Environmental Software

HARP Risk Values

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
1	GRID	1.75E-05	9.71E-09	3.14E-09	563,410	4,188,231	10
2	GRID	1.90E-05	1.06E-08	3.23E-09	563,510	4,188,231	10
3	GRID	2.06E-05	1.15E-08	3.44E-09	563,610	4,188,231	10
4	GRID	2.25E-05	1.26E-08	3.59E-09	563,710	4,188,231	10
5	GRID	2.47E-05	1.38E-08	3.78E-09	563,810	4,188,231	10
6	GRID	2.71E-05	1.52E-08	3.90E-09	563,910	4,188,231	10
7	GRID	2.99E-05	1.68E-08	4.13E-09	564,010	4,188,231	10
8	GRID	3.34E-05	1.89E-08	4.44E-09	564,110	4,188,231	10
9	GRID	3.81E-05	2.16E-08	4.77E-09	564,210	4,188,231	10
10	GRID	4.45E-05	2.53E-08	5.14E-09	564,310	4,188,231	10
11	GRID	5.32E-05	3.03E-08	5.43E-09	564,410	4,188,231	10
12	GRID	6.59E-05	3.76E-08	5.97E-09	564,510	4,188,231	10
13	GRID	8.48E-05	4.85E-08	7.20E-09	564,610	4,188,231	10
14	GRID	1.02E-04	5.84E-08	9.31E-09	564,710	4,188,231	10
15	GRID	7.89E-05	4.52E-08	7.62E-09	564,810	4,188,231	10
16	GRID	6.45E-05	3.69E-08	6.46E-09	564,910	4,188,231	10
17	GRID	5.71E-05	3.28E-08	5.80E-09	565,010	4,188,231	10
18	GRID	4.79E-05	2.74E-08	5.31E-09	565,110	4,188,231	10
19	GRID	4.18E-05	2.38E-08	4.81E-09	565,210	4,188,231	10
20	GRID	3.65E-05	2.08E-08	4.24E-09	565,310	4,188,231	10
21	GRID	3.24E-05	1.84E-08	4.02E-09	565,410	4,188,231	10
22	GRID	2.90E-05	1.65E-08	3.65E-09	565,510	4,188,231	10
23	GRID	2.63E-05	1.49E-08	3.40E-09	565,610	4,188,231	10
24	GRID	2.41E-05	1.36E-08	3.18E-09	565,710	4,188,231	10
25	GRID	2.23E-05	1.26E-08	3.02E-09	565,810	4,188,231	10
26	GRID	1.80E-05	9.96E-09	3.23E-09	563,410	4,188,131	10
27	GRID	1.97E-05	1.09E-08	3.49E-09	563,510	4,188,131	10
28	GRID	2.14E-05	1.19E-08	3.65E-09	563,610	4,188,131	10
29	GRID	2.35E-05	1.31E-08	3.90E-09	563,710	4,188,131	10
30	GRID	2.59E-05	1.45E-08	4.12E-09	563,810	4,188,131	10
31	GRID	2.87E-05	1.61E-08	4.22E-09	563,910	4,188,131	10
32	GRID	3.19E-05	1.79E-08	4.53E-09	564,010	4,188,131	10
33	GRID	3.60E-05	2.03E-08	4.89E-09	564,110	4,188,131	10
34	GRID	4.15E-05	2.35E-08	5.01E-09	564,210	4,188,131	10
35	GRID	4.92E-05	2.79E-08	5.60E-09	564,310	4,188,131	10
36	GRID	6.06E-05	3.45E-08	6.20E-09	564,410	4,188,131	10
37	GRID	7.98E-05	4.56E-08	7.06E-09	564,510	4,188,131	10
38	GRID	1.23E-04	7.02E-08	8.26E-09	564,610	4,188,131	10
39	GRID	2.76E-04	1.59E-07	9.87E-09	564,710	4,188,131	10
40	GRID	1.19E-04	6.85E-08	8.23E-09	564,810	4,188,131	10
41	GRID	8.55E-05	4.92E-08	7.03E-09	564,910	4,188,131	10
42	GRID	7.07E-05	4.07E-08	6.53E-09	565,010	4,188,131	10
43	GRID	5.75E-05	3.30E-08	5.48E-09	565,110	4,188,131	10
44	GRID	4.78E-05	2.74E-08	5.02E-09	565,210	4,188,131	10
45	GRID	4.09E-05	2.33E-08	4.42E-09	565,310	4,188,131	10
46	GRID	3.59E-05	2.04E-08	4.18E-09	565,410	4,188,131	10
47	GRID	3.19E-05	1.81E-08	3.86E-09	565,510	4,188,131	10
48	GRID	2.86E-05	1.62E-08	3.47E-09	565,610	4,188,131	10
49	GRID	2.60E-05	1.47E-08	3.28E-09	565,710	4,188,131	10
50	GRID	2.38E-05	1.34E-08	3.09E-09	565,810	4,188,131	10
51	GRID	1.86E-05	1.02E-08	3.49E-09	563,410	4,188,031	10
52	GRID	2.03E-05	1.12E-08	3.68E-09	563,510	4,188,031	10
53	GRID	2.23E-05	1.23E-08	3.87E-09	563,610	4,188,031	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
54	GRID	2.45E-05	1.36E-08	4.06E-09	563,710	4,188,031	10
55	GRID	2.72E-05	1.51E-08	4.29E-09	563,810	4,188,031	10
56	GRID	3.02E-05	1.69E-08	4.52E-09	563,910	4,188,031	10
57	GRID	3.39E-05	1.90E-08	4.97E-09	564,010	4,188,031	10
58	GRID	3.85E-05	2.17E-08	5.17E-09	564,110	4,188,031	10
59	GRID	4.50E-05	2.54E-08	5.66E-09	564,210	4,188,031	10
60	GRID	5.41E-05	3.07E-08	6.26E-09	564,310	4,188,031	10
61	GRID	6.81E-05	3.88E-08	7.02E-09	564,410	4,188,031	10
62	GRID	9.35E-05	5.35E-08	7.87E-09	564,510	4,188,031	10
63	GRID	1.56E-04	8.96E-08	9.97E-09	564,610	4,188,031	10
64	GRID	2.83E-04	1.62E-07	1.14E-08	564,710	4,188,031	10
65	GRID	1.55E-04	8.95E-08	8.63E-09	564,810	4,188,031	10
66	GRID	1.15E-04	6.62E-08	8.17E-09	564,910	4,188,031	10
67	GRID	8.84E-05	5.11E-08	7.03E-09	565,010	4,188,031	10
68	GRID	6.80E-05	3.91E-08	5.94E-09	565,110	4,188,031	10
69	GRID	5.52E-05	3.17E-08	5.19E-09	565,210	4,188,031	10
70	GRID	4.64E-05	2.65E-08	4.75E-09	565,310	4,188,031	10
71	GRID	4.00E-05	2.28E-08	4.30E-09	565,410	4,188,031	10
72	GRID	3.50E-05	1.99E-08	4.00E-09	565,510	4,188,031	10
73	GRID	3.11E-05	1.76E-08	3.73E-09	565,610	4,188,031	10
74	GRID	2.80E-05	1.59E-08	3.37E-09	565,710	4,188,031	10
75	GRID	2.54E-05	1.43E-08	3.16E-09	565,810	4,188,031	10
76	GRID	1.92E-05	1.05E-08	3.67E-09	563,410	4,187,931	10
77	GRID	2.10E-05	1.16E-08	3.99E-09	563,510	4,187,931	10
78	GRID	2.31E-05	1.27E-08	4.18E-09	563,610	4,187,931	10
79	GRID	2.54E-05	1.41E-08	4.36E-09	563,710	4,187,931	10
80	GRID	2.84E-05	1.58E-08	4.79E-09	563,810	4,187,931	10
81	GRID	3.18E-05	1.77E-08	4.88E-09	563,910	4,187,931	10
82	GRID	3.59E-05	2.01E-08	5.14E-09	564,010	4,187,931	10
83	GRID	4.11E-05	2.31E-08	5.59E-09	564,110	4,187,931	10
84	GRID	4.84E-05	2.73E-08	6.01E-09	564,210	4,187,931	10
85	GRID	5.91E-05	3.35E-08	6.80E-09	564,310	4,187,931	10
86	GRID	7.57E-05	4.31E-08	8.05E-09	564,410	4,187,931	10
87	GRID	1.06E-04	6.08E-08	9.16E-09	564,510	4,187,931	10
88	GRID	1.94E-04	1.11E-07	1.19E-08	564,610	4,187,931	10
89	GRID	2.67E-04	1.54E-07	1.21E-08	564,710	4,187,931	10
90	GRID	1.85E-04	1.07E-07	9.35E-09	564,810	4,187,931	10
91	GRID	1.83E-04	1.07E-07	9.21E-09	564,910	4,187,931	10
92	GRID	1.13E-04	6.59E-08	7.20E-09	565,010	4,187,931	10
93	GRID	8.18E-05	4.73E-08	6.06E-09	565,110	4,187,931	10
94	GRID	6.38E-05	3.67E-08	5.47E-09	565,210	4,187,931	10
95	GRID	5.24E-05	3.00E-08	5.05E-09	565,310	4,187,931	10
96	GRID	4.44E-05	2.53E-08	4.55E-09	565,410	4,187,931	10
97	GRID	3.84E-05	2.18E-08	4.18E-09	565,510	4,187,931	10
98	GRID	3.37E-05	1.91E-08	3.84E-09	565,610	4,187,931	10
99	GRID	3.00E-05	1.70E-08	3.58E-09	565,710	4,187,931	10
100	GRID	2.69E-05	1.52E-08	3.23E-09	565,810	4,187,931	10
101	GRID	1.99E-05	1.09E-08	3.85E-09	563,410	4,187,831	10
102	GRID	2.18E-05	1.19E-08	4.05E-09	563,510	4,187,831	10
103	GRID	2.40E-05	1.32E-08	4.32E-09	563,610	4,187,831	10
104	GRID	2.65E-05	1.46E-08	4.73E-09	563,710	4,187,831	10
105	GRID	2.97E-05	1.65E-08	5.05E-09	563,810	4,187,831	10
106	GRID	3.35E-05	1.86E-08	5.40E-09	563,910	4,187,831	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
107	GRID	3.81E-05	2.13E-08	5.82E-09	564,010	4,187,831	10
108	GRID	4.40E-05	2.47E-08	6.28E-09	564,110	4,187,831	10
109	GRID	5.22E-05	2.94E-08	6.69E-09	564,210	4,187,831	10
110	GRID	6.41E-05	3.63E-08	7.38E-09	564,310	4,187,831	10
111	GRID	8.31E-05	4.73E-08	8.78E-09	564,410	4,187,831	10
112	GRID	1.19E-04	6.81E-08	1.00E-08	564,510	4,187,831	10
113	GRID	2.51E-04	1.44E-07	1.52E-08	564,610	4,187,831	10
114	GRID	2.54E-04	1.46E-07	1.32E-08	564,710	4,187,831	10
115	GRID	2.07E-04	1.20E-07	9.97E-09	564,810	4,187,831	10
116	GRID	2.93E-04	1.73E-07	9.64E-09	564,910	4,187,831	10
117	GRID	1.44E-04	8.44E-08	7.53E-09	565,010	4,187,831	10
118	GRID	9.56E-05	5.54E-08	6.44E-09	565,110	4,187,831	10
119	GRID	7.23E-05	4.17E-08	5.61E-09	565,210	4,187,831	10
120	GRID	5.81E-05	3.33E-08	5.32E-09	565,310	4,187,831	10
121	GRID	4.84E-05	2.76E-08	4.59E-09	565,410	4,187,831	10
122	GRID	4.14E-05	2.36E-08	4.30E-09	565,510	4,187,831	10
123	GRID	3.62E-05	2.05E-08	3.86E-09	565,610	4,187,831	10
124	GRID	3.20E-05	1.81E-08	3.65E-09	565,710	4,187,831	10
125	GRID	2.85E-05	1.61E-08	3.32E-09	565,810	4,187,831	10
126	GRID	2.06E-05	1.12E-08	4.08E-09	563,410	4,187,731	10
127	GRID	2.26E-05	1.24E-08	4.43E-09	563,510	4,187,731	10
128	GRID	2.49E-05	1.37E-08	4.74E-09	563,610	4,187,731	10
129	GRID	2.77E-05	1.52E-08	4.95E-09	563,710	4,187,731	10
130	GRID	3.12E-05	1.72E-08	5.15E-09	563,810	4,187,731	10
131	GRID	3.54E-05	1.96E-08	5.56E-09	563,910	4,187,731	10
132	GRID	4.05E-05	2.25E-08	6.12E-09	564,010	4,187,731	10
133	GRID	4.70E-05	2.63E-08	6.53E-09	564,110	4,187,731	10
134	GRID	5.58E-05	3.14E-08	7.24E-09	564,210	4,187,731	10
135	GRID	6.92E-05	3.91E-08	8.31E-09	564,310	4,187,731	10
136	GRID	9.06E-05	5.15E-08	9.34E-09	564,410	4,187,731	10
137	GRID	1.34E-04	7.67E-08	1.12E-08	564,510	4,187,731	10
138	GRID	4.21E-04	2.41E-07	2.09E-08	564,610	4,187,731	10
139	GRID	2.45E-04	1.41E-07	1.30E-08	564,710	4,187,731	10
140	GRID	2.26E-04	1.32E-07	1.08E-08	564,810	4,187,731	10
141	GRID	2.71E-04	1.60E-07	9.78E-09	564,910	4,187,731	10
142	GRID	1.54E-04	8.99E-08	8.18E-09	565,010	4,187,731	10
143	GRID	1.05E-04	6.08E-08	6.59E-09	565,110	4,187,731	10
144	GRID	7.91E-05	4.56E-08	6.06E-09	565,210	4,187,731	10
145	GRID	6.31E-05	3.62E-08	5.30E-09	565,310	4,187,731	10
146	GRID	5.24E-05	2.99E-08	4.95E-09	565,410	4,187,731	10
147	GRID	4.45E-05	2.54E-08	4.46E-09	565,510	4,187,731	10
148	GRID	3.85E-05	2.19E-08	4.10E-09	565,610	4,187,731	10
149	GRID	3.38E-05	1.92E-08	3.75E-09	565,710	4,187,731	10
150	GRID	3.00E-05	1.70E-08	3.34E-09	565,810	4,187,731	10
151	GRID	2.13E-05	1.15E-08	4.48E-09	563,410	4,187,631	10
152	GRID	2.36E-05	1.28E-08	4.67E-09	563,510	4,187,631	10
153	GRID	2.61E-05	1.42E-08	4.92E-09	563,610	4,187,631	10
154	GRID	2.90E-05	1.59E-08	5.25E-09	563,710	4,187,631	10
155	GRID	3.28E-05	1.80E-08	5.72E-09	563,810	4,187,631	10
156	GRID	3.74E-05	2.06E-08	6.02E-09	563,910	4,187,631	10
157	GRID	4.29E-05	2.38E-08	6.43E-09	564,010	4,187,631	10
158	GRID	4.99E-05	2.78E-08	6.92E-09	564,110	4,187,631	10
159	GRID	5.97E-05	3.35E-08	7.71E-09	564,210	4,187,631	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
160	GRID	7.43E-05	4.19E-08	9.23E-09	564,310	4,187,631	10
161	GRID	9.86E-05	5.60E-08	1.02E-08	564,410	4,187,631	10
162	GRID	1.52E-04	8.70E-08	1.28E-08	564,510	4,187,631	10
163	GRID	4.17E-04	2.39E-07	1.75E-08	564,610	4,187,631	10
164	GRID	2.38E-04	1.38E-07	1.34E-08	564,710	4,187,631	10
165	GRID	2.56E-04	1.50E-07	1.24E-08	564,810	4,187,631	10
166	GRID	2.48E-04	1.46E-07	1.01E-08	564,910	4,187,631	10
167	GRID	1.53E-04	8.96E-08	8.08E-09	565,010	4,187,631	10
168	GRID	1.09E-04	6.31E-08	7.09E-09	565,110	4,187,631	10
169	GRID	8.31E-05	4.79E-08	6.07E-09	565,210	4,187,631	10
170	GRID	6.68E-05	3.83E-08	5.64E-09	565,310	4,187,631	10
171	GRID	5.55E-05	3.17E-08	5.02E-09	565,410	4,187,631	10
172	GRID	4.70E-05	2.68E-08	4.62E-09	565,510	4,187,631	10
173	GRID	4.06E-05	2.31E-08	4.19E-09	565,610	4,187,631	10
174	GRID	3.56E-05	2.02E-08	3.84E-09	565,710	4,187,631	10
175	GRID	3.16E-05	1.78E-08	3.65E-09	565,810	4,187,631	10
176	GRID	2.21E-05	1.19E-08	4.70E-09	563,410	4,187,531	10
177	GRID	2.46E-05	1.33E-08	5.09E-09	563,510	4,187,531	10
178	GRID	2.75E-05	1.49E-08	5.54E-09	563,610	4,187,531	10
179	GRID	3.07E-05	1.67E-08	5.78E-09	563,710	4,187,531	10
180	GRID	3.46E-05	1.89E-08	6.14E-09	563,810	4,187,531	10
181	GRID	3.95E-05	2.17E-08	6.47E-09	563,910	4,187,531	10
182	GRID	4.55E-05	2.51E-08	7.13E-09	564,010	4,187,531	10
183	GRID	5.34E-05	2.96E-08	7.72E-09	564,110	4,187,531	10
184	GRID	6.40E-05	3.57E-08	8.53E-09	564,210	4,187,531	10
185	GRID	8.01E-05	4.51E-08	9.77E-09	564,310	4,187,531	10
186	GRID	1.08E-04	6.12E-08	1.14E-08	564,410	4,187,531	10
187	GRID	1.73E-04	9.86E-08	1.38E-08	564,510	4,187,531	10
188	GRID	3.49E-04	2.00E-07	1.72E-08	564,610	4,187,531	10
189	GRID	2.35E-04	1.36E-07	1.39E-08	564,710	4,187,531	10
190	GRID	3.53E-04	2.08E-07	1.40E-08	564,810	4,187,531	10
191	GRID	2.29E-04	1.34E-07	1.05E-08	564,910	4,187,531	10
192	GRID	1.50E-04	8.73E-08	8.22E-09	565,010	4,187,531	10
193	GRID	1.09E-04	6.34E-08	7.28E-09	565,110	4,187,531	10
194	GRID	8.56E-05	4.93E-08	6.51E-09	565,210	4,187,531	10
195	GRID	6.91E-05	3.96E-08	5.58E-09	565,310	4,187,531	10
196	GRID	5.77E-05	3.29E-08	5.35E-09	565,410	4,187,531	10
197	GRID	4.91E-05	2.79E-08	4.53E-09	565,510	4,187,531	10
198	GRID	4.25E-05	2.41E-08	4.42E-09	565,610	4,187,531	10
199	GRID	3.72E-05	2.10E-08	3.90E-09	565,710	4,187,531	10
200	GRID	3.30E-05	1.86E-08	3.73E-09	565,810	4,187,531	10
201	GRID	2.29E-05	1.23E-08	4.96E-09	563,410	4,187,431	10
202	GRID	2.57E-05	1.38E-08	5.42E-09	563,510	4,187,431	10
203	GRID	2.89E-05	1.56E-08	5.78E-09	563,610	4,187,431	10
204	GRID	3.24E-05	1.75E-08	5.91E-09	563,710	4,187,431	10
205	GRID	3.67E-05	1.99E-08	6.45E-09	563,810	4,187,431	10
206	GRID	4.20E-05	2.29E-08	7.10E-09	563,910	4,187,431	10
207	GRID	4.87E-05	2.67E-08	7.71E-09	564,010	4,187,431	10
208	GRID	5.72E-05	3.16E-08	8.46E-09	564,110	4,187,431	10
209	GRID	6.87E-05	3.82E-08	9.36E-09	564,210	4,187,431	10
210	GRID	8.63E-05	4.84E-08	1.02E-08	564,310	4,187,431	10
211	GRID	1.18E-04	6.70E-08	1.21E-08	564,410	4,187,431	10
212	GRID	1.99E-04	1.14E-07	1.57E-08	564,510	4,187,431	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
213	GRID	3.13E-04	1.80E-07	1.69E-08	564,610	4,187,431	10
214	GRID	2.36E-04	1.36E-07	1.41E-08	564,710	4,187,431	10
215	GRID	4.28E-04	2.53E-07	1.43E-08	564,810	4,187,431	10
216	GRID	2.13E-04	1.25E-07	1.05E-08	564,910	4,187,431	10
217	GRID	1.46E-04	8.46E-08	8.94E-09	565,010	4,187,431	10
218	GRID	1.09E-04	6.32E-08	7.25E-09	565,110	4,187,431	10
219	GRID	8.64E-05	4.96E-08	6.70E-09	565,210	4,187,431	10
220	GRID	7.10E-05	4.06E-08	5.99E-09	565,310	4,187,431	10
221	GRID	5.92E-05	3.37E-08	5.38E-09	565,410	4,187,431	10
222	GRID	5.05E-05	2.87E-08	5.06E-09	565,510	4,187,431	10
223	GRID	4.39E-05	2.48E-08	4.34E-09	565,610	4,187,431	10
224	GRID	3.85E-05	2.18E-08	4.15E-09	565,710	4,187,431	10
225	GRID	3.43E-05	1.93E-08	3.66E-09	565,810	4,187,431	10
226	GRID	2.36E-05	1.26E-08	5.54E-09	563,410	4,187,331	10
227	GRID	2.67E-05	1.42E-08	5.84E-09	563,510	4,187,331	10
228	GRID	3.04E-05	1.62E-08	6.14E-09	563,610	4,187,331	10
229	GRID	3.45E-05	1.85E-08	6.86E-09	563,710	4,187,331	10
230	GRID	3.93E-05	2.11E-08	7.12E-09	563,810	4,187,331	10
231	GRID	4.52E-05	2.44E-08	7.38E-09	563,910	4,187,331	10
232	GRID	5.26E-05	2.86E-08	7.94E-09	564,010	4,187,331	10
233	GRID	6.16E-05	3.38E-08	8.89E-09	564,110	4,187,331	10
234	GRID	7.39E-05	4.09E-08	1.00E-08	564,210	4,187,331	10
235	GRID	9.37E-05	5.23E-08	1.16E-08	564,310	4,187,331	10
236	GRID	1.30E-04	7.36E-08	1.33E-08	564,410	4,187,331	10
237	GRID	2.39E-04	1.36E-07	1.78E-08	564,510	4,187,331	10
238	GRID	2.90E-04	1.66E-07	1.73E-08	564,610	4,187,331	10
239	GRID	2.42E-04	1.40E-07	1.41E-08	564,710	4,187,331	10
240	GRID	3.42E-04	2.02E-07	1.37E-08	564,810	4,187,331	10
241	GRID	1.99E-04	1.16E-07	1.04E-08	564,910	4,187,331	10
242	GRID	1.42E-04	8.21E-08	8.98E-09	565,010	4,187,331	10
243	GRID	1.09E-04	6.25E-08	7.85E-09	565,110	4,187,331	10
244	GRID	8.68E-05	4.97E-08	6.68E-09	565,210	4,187,331	10
245	GRID	7.18E-05	4.09E-08	6.50E-09	565,310	4,187,331	10
246	GRID	6.05E-05	3.44E-08	5.38E-09	565,410	4,187,331	10
247	GRID	5.16E-05	2.92E-08	5.24E-09	565,510	4,187,331	10
248	GRID	4.48E-05	2.53E-08	4.61E-09	565,610	4,187,331	10
249	GRID	3.96E-05	2.23E-08	4.23E-09	565,710	4,187,331	10
250	GRID	3.53E-05	1.98E-08	3.83E-09	565,810	4,187,331	10
251	GRID	2.43E-05	1.29E-08	5.91E-09	563,410	4,187,231	10
252	GRID	2.78E-05	1.47E-08	6.43E-09	563,510	4,187,231	10
253	GRID	3.21E-05	1.70E-08	6.96E-09	563,610	4,187,231	10
254	GRID	3.70E-05	1.96E-08	7.57E-09	563,710	4,187,231	10
255	GRID	4.26E-05	2.26E-08	7.99E-09	563,810	4,187,231	10
256	GRID	4.93E-05	2.63E-08	8.51E-09	563,910	4,187,231	10
257	GRID	5.74E-05	3.09E-08	9.16E-09	564,010	4,187,231	10
258	GRID	6.71E-05	3.64E-08	9.86E-09	564,110	4,187,231	10
259	GRID	8.04E-05	4.41E-08	1.08E-08	564,210	4,187,231	10
260	GRID	1.03E-04	5.70E-08	1.24E-08	564,310	4,187,231	10
261	GRID	1.44E-04	8.12E-08	1.45E-08	564,410	4,187,231	10
262	GRID	3.36E-04	1.91E-07	2.18E-08	564,510	4,187,231	10
263	GRID	2.75E-04	1.57E-07	1.77E-08	564,610	4,187,231	10
264	GRID	2.55E-04	1.48E-07	1.48E-08	564,710	4,187,231	10
265	GRID	3.00E-04	1.76E-07	1.36E-08	564,810	4,187,231	10

HARP Risk Values

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
266	GRID	1.88E-04	1.09E-07	1.09E-08	564,910	4,187,231	10
267	GRID	1.38E-04	7.96E-08	9.31E-09	565,010	4,187,231	10
268	GRID	1.08E-04	6.16E-08	8.02E-09	565,110	4,187,231	10
269	GRID	8.71E-05	4.96E-08	7.24E-09	565,210	4,187,231	10
270	GRID	7.23E-05	4.11E-08	6.29E-09	565,310	4,187,231	10
271	GRID	6.13E-05	3.47E-08	5.95E-09	565,410	4,187,231	10
272	GRID	5.26E-05	2.97E-08	5.02E-09	565,510	4,187,231	10
273	GRID	4.57E-05	2.57E-08	4.86E-09	565,610	4,187,231	10
274	GRID	4.04E-05	2.27E-08	4.29E-09	565,710	4,187,231	10
275	GRID	3.60E-05	2.02E-08	3.94E-09	565,810	4,187,231	10
276	GRID	2.48E-05	1.31E-08	6.31E-09	563,410	4,187,131	10
277	GRID	2.88E-05	1.52E-08	6.80E-09	563,510	4,187,131	10
278	GRID	3.38E-05	1.78E-08	7.51E-09	563,610	4,187,131	10
279	GRID	4.01E-05	2.10E-08	8.20E-09	563,710	4,187,131	10
280	GRID	4.66E-05	2.45E-08	8.90E-09	563,810	4,187,131	10
281	GRID	5.46E-05	2.88E-08	9.60E-09	563,910	4,187,131	10
282	GRID	6.40E-05	3.39E-08	1.04E-08	564,010	4,187,131	10
283	GRID	7.45E-05	3.99E-08	1.10E-08	564,110	4,187,131	10
284	GRID	8.90E-05	4.83E-08	1.18E-08	564,210	4,187,131	10
285	GRID	1.13E-04	6.24E-08	1.34E-08	564,310	4,187,131	10
286	GRID	1.62E-04	9.06E-08	1.57E-08	564,410	4,187,131	10
287	GRID	4.91E-04	2.80E-07	2.45E-08	564,510	4,187,131	10
288	GRID	2.66E-04	1.52E-07	1.70E-08	564,610	4,187,131	10
289	GRID	2.82E-04	1.64E-07	1.57E-08	564,710	4,187,131	10
290	GRID	2.72E-04	1.59E-07	1.37E-08	564,810	4,187,131	10
291	GRID	1.80E-04	1.04E-07	1.12E-08	564,910	4,187,131	10
292	GRID	1.35E-04	7.73E-08	9.69E-09	565,010	4,187,131	10
293	GRID	1.07E-04	6.07E-08	8.14E-09	565,110	4,187,131	10
294	GRID	8.73E-05	4.95E-08	7.45E-09	565,210	4,187,131	10
295	GRID	7.28E-05	4.11E-08	6.65E-09	565,310	4,187,131	10
296	GRID	6.19E-05	3.48E-08	6.06E-09	565,410	4,187,131	10
297	GRID	5.34E-05	3.00E-08	5.49E-09	565,510	4,187,131	10
298	GRID	4.67E-05	2.62E-08	4.87E-09	565,610	4,187,131	10
299	GRID	4.11E-05	2.30E-08	4.32E-09	565,710	4,187,131	10
300	GRID	3.65E-05	2.05E-08	3.99E-09	565,810	4,187,131	10
301	GRID	2.37E-05	1.26E-08	6.98E-09	563,410	4,187,031	10
302	GRID	2.97E-05	1.55E-08	7.83E-09	563,510	4,187,031	10
303	GRID	3.59E-05	1.86E-08	8.36E-09	563,610	4,187,031	10
304	GRID	4.37E-05	2.26E-08	9.01E-09	563,710	4,187,031	10
305	GRID	5.25E-05	2.71E-08	9.87E-09	563,810	4,187,031	10
306	GRID	6.28E-05	3.25E-08	1.07E-08	563,910	4,187,031	10
307	GRID	7.33E-05	3.82E-08	1.16E-08	564,010	4,187,031	10
308	GRID	8.54E-05	4.50E-08	1.24E-08	564,110	4,187,031	10
309	GRID	1.01E-04	5.39E-08	1.39E-08	564,210	4,187,031	10
310	GRID	1.27E-04	6.93E-08	1.52E-08	564,310	4,187,031	10
311	GRID	1.84E-04	1.03E-07	1.77E-08	564,410	4,187,031	10
312	GRID	4.02E-04	2.28E-07	2.12E-08	564,510	4,187,031	10
313	GRID	2.63E-04	1.50E-07	1.78E-08	564,610	4,187,031	10
314	GRID	3.78E-04	2.21E-07	1.95E-08	564,710	4,187,031	10
315	GRID	2.52E-04	1.46E-07	1.40E-08	564,810	4,187,031	10
316	GRID	1.74E-04	9.95E-08	1.15E-08	564,910	4,187,031	10
317	GRID	1.33E-04	7.54E-08	9.88E-09	565,010	4,187,031	10
318	GRID	1.06E-04	6.01E-08	8.64E-09	565,110	4,187,031	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
319	GRID	8.78E-05	4.94E-08	7.80E-09	565,210	4,187,031	10
320	GRID	7.34E-05	4.12E-08	7.18E-09	565,310	4,187,031	10
321	GRID	6.24E-05	3.49E-08	6.16E-09	565,410	4,187,031	10
322	GRID	5.40E-05	3.02E-08	5.65E-09	565,510	4,187,031	10
323	GRID	4.75E-05	2.65E-08	5.00E-09	565,610	4,187,031	10
324	GRID	4.17E-05	2.33E-08	4.52E-09	565,710	4,187,031	10
325	GRID	3.72E-05	2.07E-08	4.16E-09	565,810	4,187,031	10
326	GRID	2.25E-05	1.20E-08	7.41E-09	563,410	4,186,931	10
327	GRID	2.77E-05	1.46E-08	8.65E-09	563,510	4,186,931	10
328	GRID	3.71E-05	1.91E-08	1.03E-08	563,610	4,186,931	10
329	GRID	4.84E-05	2.47E-08	1.12E-08	563,710	4,186,931	10
330	GRID	6.23E-05	3.15E-08	1.20E-08	563,810	4,186,931	10
331	GRID	7.75E-05	3.91E-08	1.29E-08	563,910	4,186,931	10
332	GRID	9.00E-05	4.57E-08	1.33E-08	564,010	4,186,931	10
333	GRID	1.02E-04	5.25E-08	1.45E-08	564,110	4,186,931	10
334	GRID	1.18E-04	6.19E-08	1.56E-08	564,210	4,186,931	10
335	GRID	1.46E-04	7.87E-08	1.79E-08	564,310	4,186,931	10
336	GRID	2.16E-04	1.19E-07	1.98E-08	564,410	4,186,931	10
337	GRID	3.63E-04	2.05E-07	2.19E-08	564,510	4,186,931	10
338	GRID	2.68E-04	1.52E-07	1.89E-08	564,610	4,186,931	10
339	GRID	4.49E-04	2.62E-07	1.84E-08	564,710	4,186,931	10
340	GRID	2.37E-04	1.36E-07	1.42E-08	564,810	4,186,931	10
341	GRID	1.70E-04	9.64E-08	1.22E-08	564,910	4,186,931	10
342	GRID	1.32E-04	7.42E-08	1.05E-08	565,010	4,186,931	10
343	GRID	1.07E-04	5.98E-08	9.07E-09	565,110	4,186,931	10
344	GRID	8.86E-05	4.95E-08	8.11E-09	565,210	4,186,931	10
345	GRID	7.42E-05	4.14E-08	7.31E-09	565,310	4,186,931	10
346	GRID	6.31E-05	3.51E-08	6.37E-09	565,410	4,186,931	10
347	GRID	5.48E-05	3.05E-08	5.88E-09	565,510	4,186,931	10
348	GRID	4.79E-05	2.67E-08	5.08E-09	565,610	4,186,931	10
349	GRID	4.25E-05	2.36E-08	4.77E-09	565,710	4,186,931	10
350	GRID	3.79E-05	2.10E-08	4.36E-09	565,810	4,186,931	10
351	GRID	2.16E-05	1.14E-08	8.26E-09	563,410	4,186,831	10
352	GRID	2.86E-05	1.49E-08	1.02E-08	563,510	4,186,831	10
353	GRID	3.48E-05	1.81E-08	1.16E-08	563,610	4,186,831	10
354	GRID	5.04E-05	2.55E-08	1.49E-08	563,710	4,186,831	10
355	GRID	8.27E-05	4.06E-08	1.62E-08	563,810	4,186,831	10
356	GRID	1.13E-04	5.50E-08	1.59E-08	563,910	4,186,831	10
357	GRID	1.24E-04	6.10E-08	1.75E-08	564,010	4,186,831	10
358	GRID	1.33E-04	6.66E-08	1.81E-08	564,110	4,186,831	10
359	GRID	1.46E-04	7.52E-08	1.90E-08	564,210	4,186,831	10
360	GRID	1.75E-04	9.25E-08	2.00E-08	564,310	4,186,831	10
361	GRID	2.64E-04	1.44E-07	2.40E-08	564,410	4,186,831	10
362	GRID	3.46E-04	1.93E-07	2.31E-08	564,510	4,186,831	10
363	GRID	2.83E-04	1.59E-07	2.03E-08	564,610	4,186,831	10
364	GRID	3.77E-04	2.18E-07	1.85E-08	564,710	4,186,831	10
365	GRID	2.30E-04	1.30E-07	1.53E-08	564,810	4,186,831	10
366	GRID	1.69E-04	9.47E-08	1.31E-08	564,910	4,186,831	10
367	GRID	1.33E-04	7.41E-08	1.15E-08	565,010	4,186,831	10
368	GRID	1.09E-04	6.02E-08	9.71E-09	565,110	4,186,831	10
369	GRID	9.01E-05	4.98E-08	8.87E-09	565,210	4,186,831	10
370	GRID	7.56E-05	4.17E-08	7.85E-09	565,310	4,186,831	10
371	GRID	6.43E-05	3.55E-08	6.94E-09	565,410	4,186,831	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
372	GRID	5.53E-05	3.06E-08	5.97E-09	565,510	4,186,831	10
373	GRID	4.84E-05	2.68E-08	5.42E-09	565,610	4,186,831	10
374	GRID	4.29E-05	2.38E-08	4.86E-09	565,710	4,186,831	10
375	GRID	3.84E-05	2.13E-08	4.50E-09	565,810	4,186,831	10
376	GRID	1.82E-05	9.82E-09	7.75E-09	563,410	4,186,731	10
377	GRID	2.22E-05	1.19E-08	9.37E-09	563,510	4,186,731	10
378	GRID	2.84E-05	1.50E-08	1.23E-08	563,610	4,186,731	10
379	GRID	3.94E-05	2.05E-08	1.67E-08	563,710	4,186,731	10
380	GRID	7.76E-05	3.82E-08	2.67E-08	563,810	4,186,731	10
381	GRID	3.16E-04	1.46E-07	2.78E-08	563,910	4,186,731	10
382	GRID	2.38E-04	1.12E-07	2.57E-08	564,010	4,186,731	10
383	GRID	2.12E-04	1.02E-07	2.45E-08	564,110	4,186,731	10
384	GRID	2.07E-04	1.03E-07	2.36E-08	564,210	4,186,731	10
385	GRID	2.28E-04	1.17E-07	2.48E-08	564,310	4,186,731	10
386	GRID	3.49E-04	1.89E-07	2.95E-08	564,410	4,186,731	10
387	GRID	3.50E-04	1.92E-07	2.57E-08	564,510	4,186,731	10
388	GRID	3.15E-04	1.75E-07	2.31E-08	564,610	4,186,731	10
389	GRID	3.49E-04	1.98E-07	1.98E-08	564,710	4,186,731	10
390	GRID	2.31E-04	1.28E-07	1.74E-08	564,810	4,186,731	10
391	GRID	1.74E-04	9.57E-08	1.41E-08	564,910	4,186,731	10
392	GRID	1.39E-04	7.57E-08	1.27E-08	565,010	4,186,731	10
393	GRID	1.13E-04	6.15E-08	1.05E-08	565,110	4,186,731	10
394	GRID	9.27E-05	5.05E-08	9.70E-09	565,210	4,186,731	10
395	GRID	7.73E-05	4.22E-08	8.26E-09	565,310	4,186,731	10
396	GRID	6.54E-05	3.58E-08	7.27E-09	565,410	4,186,731	10
397	GRID	5.59E-05	3.07E-08	6.50E-09	565,510	4,186,731	10
398	GRID	4.88E-05	2.68E-08	5.70E-09	565,610	4,186,731	10
399	GRID	4.32E-05	2.38E-08	5.14E-09	565,710	4,186,731	10
400	GRID	3.86E-05	2.13E-08	4.67E-09	565,810	4,186,731	10
401	GRID	1.75E-05	9.42E-09	8.42E-09	563,410	4,186,631	10
402	GRID	2.10E-05	1.12E-08	9.57E-09	563,510	4,186,631	10
403	GRID	2.65E-05	1.40E-08	1.19E-08	563,610	4,186,631	10
404	GRID	3.55E-05	1.85E-08	1.48E-08	563,710	4,186,631	10
405	GRID	5.26E-05	2.68E-08	1.64E-08	563,810	4,186,631	10
406	GRID	9.36E-05	4.61E-08	2.02E-08	563,910	4,186,631	10
407	GRID	1.52E-04	7.34E-08	2.53E-08	564,010	4,186,631	10
408	GRID	2.43E-04	1.16E-07	3.56E-08	564,110	4,186,631	10
409	GRID	4.89E-04	2.30E-07	4.59E-08	564,210	4,186,631	10
410	GRID	3.84E-04	1.88E-07	3.70E-08	564,310	4,186,631	10
411	GRID	6.05E-04	3.24E-07	4.02E-08	564,410	4,186,631	10
412	GRID	3.99E-04	2.11E-07	3.08E-08	564,510	4,186,631	10
413	GRID	3.88E-04	2.11E-07	2.79E-08	564,610	4,186,631	10
414	GRID	3.55E-04	1.95E-07	2.32E-08	564,710	4,186,631	10
415	GRID	2.48E-04	1.34E-07	1.91E-08	564,810	4,186,631	10
416	GRID	1.91E-04	1.02E-07	1.67E-08	564,910	4,186,631	10
417	GRID	1.52E-04	8.08E-08	1.35E-08	565,010	4,186,631	10
418	GRID	1.22E-04	6.49E-08	1.24E-08	565,110	4,186,631	10
419	GRID	9.77E-05	5.24E-08	1.00E-08	565,210	4,186,631	10
420	GRID	8.01E-05	4.32E-08	9.38E-09	565,310	4,186,631	10
421	GRID	6.67E-05	3.62E-08	7.61E-09	565,410	4,186,631	10
422	GRID	5.69E-05	3.10E-08	6.93E-09	565,510	4,186,631	10
423	GRID	4.94E-05	2.70E-08	5.99E-09	565,610	4,186,631	10
424	GRID	4.34E-05	2.38E-08	5.28E-09	565,710	4,186,631	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
425	GRID	3.85E-05	2.12E-08	4.63E-09	565,810	4,186,631	10
426	GRID	1.67E-05	8.95E-09	7.94E-09	563,410	4,186,531	10
427	GRID	2.01E-05	1.07E-08	8.76E-09	563,510	4,186,531	10
428	GRID	2.45E-05	1.30E-08	1.01E-08	563,610	4,186,531	10
429	GRID	3.10E-05	1.63E-08	1.20E-08	563,710	4,186,531	10
430	GRID	4.27E-05	2.22E-08	1.39E-08	563,810	4,186,531	10
431	GRID	6.16E-05	3.15E-08	1.80E-08	563,910	4,186,531	10
432	GRID	8.83E-05	4.47E-08	1.97E-08	564,010	4,186,531	10
433	GRID	1.22E-04	6.15E-08	2.32E-08	564,110	4,186,531	10
434	GRID	1.69E-04	8.61E-08	2.91E-08	564,210	4,186,531	10
435	GRID	2.53E-04	1.31E-07	3.40E-08	564,310	4,186,531	10
436	GRID	5.82E-04	3.14E-07	4.46E-08	564,410	4,186,531	10
437	GRID	5.56E-04	2.81E-07	4.77E-08	564,510	4,186,531	10
438	GRID	6.83E-04	3.59E-07	4.66E-08	564,610	4,186,531	10
439	GRID	4.39E-04	2.29E-07	3.30E-08	564,710	4,186,531	10
440	GRID	3.14E-04	1.61E-07	2.56E-08	564,810	4,186,531	10
441	GRID	2.39E-04	1.23E-07	1.97E-08	564,910	4,186,531	10
442	GRID	1.85E-04	9.50E-08	1.60E-08	565,010	4,186,531	10
443	GRID	1.41E-04	7.32E-08	1.33E-08	565,110	4,186,531	10
444	GRID	1.06E-04	5.59E-08	1.11E-08	565,210	4,186,531	10
445	GRID	8.35E-05	4.44E-08	9.71E-09	565,310	4,186,531	10
446	GRID	6.87E-05	3.69E-08	8.07E-09	565,410	4,186,531	10
447	GRID	5.77E-05	3.12E-08	6.85E-09	565,510	4,186,531	10
448	GRID	4.95E-05	2.69E-08	5.98E-09	565,610	4,186,531	10
449	GRID	4.33E-05	2.36E-08	5.22E-09	565,710	4,186,531	10
450	GRID	3.84E-05	2.10E-08	4.78E-09	565,810	4,186,531	10
451	GRID	1.59E-05	8.53E-09	7.18E-09	563,410	4,186,431	10
452	GRID	1.86E-05	9.96E-09	8.29E-09	563,510	4,186,431	10
453	GRID	2.23E-05	1.19E-08	9.43E-09	563,610	4,186,431	10
454	GRID	2.75E-05	1.45E-08	1.04E-08	563,710	4,186,431	10
455	GRID	3.57E-05	1.87E-08	1.22E-08	563,810	4,186,431	10
456	GRID	4.83E-05	2.52E-08	1.52E-08	563,910	4,186,431	10
457	GRID	6.67E-05	3.47E-08	1.61E-08	564,010	4,186,431	10
458	GRID	9.09E-05	4.75E-08	1.93E-08	564,110	4,186,431	10
459	GRID	1.29E-04	6.80E-08	2.34E-08	564,210	4,186,431	10
460	GRID	2.05E-04	1.10E-07	2.74E-08	564,310	4,186,431	10
461	GRID	4.04E-04	2.24E-07	3.29E-08	564,410	4,186,431	10
462	GRID	3.12E-04	1.70E-07	3.21E-08	564,510	4,186,431	10
463	GRID	5.17E-04	2.91E-07	3.39E-08	564,610	4,186,431	10
464	GRID	3.42E-04	1.81E-07	3.27E-08	564,710	4,186,431	10
465	GRID	3.53E-04	1.77E-07	3.61E-08	564,810	4,186,431	10
466	GRID	5.16E-04	2.46E-07	4.20E-08	564,910	4,186,431	10
467	GRID	3.17E-04	1.54E-07	2.55E-08	565,010	4,186,431	10
468	GRID	2.00E-04	9.90E-08	1.77E-08	565,110	4,186,431	10
469	GRID	1.22E-04	6.25E-08	1.37E-08	565,210	4,186,431	10
470	GRID	8.83E-05	4.62E-08	1.04E-08	565,310	4,186,431	10
471	GRID	6.97E-05	3.70E-08	8.71E-09	565,410	4,186,431	10
472	GRID	5.77E-05	3.10E-08	7.51E-09	565,510	4,186,431	10
473	GRID	4.91E-05	2.65E-08	6.43E-09	565,610	4,186,431	10
474	GRID	4.26E-05	2.31E-08	5.55E-09	565,710	4,186,431	10
475	GRID	3.77E-05	2.06E-08	4.86E-09	565,810	4,186,431	10
476	GRID	1.48E-05	7.92E-09	6.81E-09	563,410	4,186,331	10
477	GRID	1.72E-05	9.19E-09	7.54E-09	563,510	4,186,331	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
478	GRID	2.01E-05	1.08E-08	8.60E-09	563,610	4,186,331	10
479	GRID	2.44E-05	1.30E-08	9.04E-09	563,710	4,186,331	10
480	GRID	3.07E-05	1.62E-08	1.08E-08	563,810	4,186,331	10
481	GRID	3.96E-05	2.09E-08	1.17E-08	563,910	4,186,331	10
482	GRID	5.31E-05	2.80E-08	1.40E-08	564,010	4,186,331	10
483	GRID	7.38E-05	3.92E-08	1.67E-08	564,110	4,186,331	10
484	GRID	1.09E-04	5.88E-08	1.91E-08	564,210	4,186,331	10
485	GRID	1.96E-04	1.08E-07	2.29E-08	564,310	4,186,331	10
486	GRID	3.22E-04	1.80E-07	2.54E-08	564,410	4,186,331	10
487	GRID	2.65E-04	1.48E-07	2.52E-08	564,510	4,186,331	10
488	GRID	3.70E-04	2.11E-07	2.62E-08	564,610	4,186,331	10
489	GRID	2.44E-04	1.34E-07	2.39E-08	564,710	4,186,331	10
490	GRID	2.05E-04	1.09E-07	2.26E-08	564,810	4,186,331	10
491	GRID	1.93E-04	9.93E-08	2.21E-08	564,910	4,186,331	10
492	GRID	1.97E-04	9.87E-08	2.05E-08	565,010	4,186,331	10
493	GRID	2.09E-04	1.02E-07	2.01E-08	565,110	4,186,331	10
494	GRID	1.30E-04	6.56E-08	1.58E-08	565,210	4,186,331	10
495	GRID	9.04E-05	4.68E-08	1.63E-08	565,310	4,186,331	10
496	GRID	6.99E-05	3.68E-08	1.15E-08	565,410	4,186,331	10
497	GRID	5.74E-05	3.06E-08	8.63E-09	565,510	4,186,331	10
498	GRID	4.88E-05	2.62E-08	7.06E-09	565,610	4,186,331	10
499	GRID	4.23E-05	2.28E-08	5.78E-09	565,710	4,186,331	10
500	GRID	3.73E-05	2.03E-08	4.85E-09	565,810	4,186,331	10
501	GRID	1.38E-05	7.41E-09	6.26E-09	563,410	4,186,231	10
502	GRID	1.57E-05	8.41E-09	6.85E-09	563,510	4,186,231	10
503	GRID	1.82E-05	9.71E-09	7.53E-09	563,610	4,186,231	10
504	GRID	2.17E-05	1.15E-08	8.12E-09	563,710	4,186,231	10
505	GRID	2.66E-05	1.42E-08	9.34E-09	563,810	4,186,231	10
506	GRID	3.34E-05	1.78E-08	1.06E-08	563,910	4,186,231	10
507	GRID	4.31E-05	2.30E-08	1.18E-08	564,010	4,186,231	10
508	GRID	5.87E-05	3.15E-08	1.37E-08	564,110	4,186,231	10
509	GRID	9.12E-05	4.98E-08	1.52E-08	564,210	4,186,231	10
510	GRID	2.00E-04	1.12E-07	2.07E-08	564,310	4,186,231	10
511	GRID	2.62E-04	1.47E-07	1.97E-08	564,410	4,186,231	10
512	GRID	2.42E-04	1.37E-07	2.02E-08	564,510	4,186,231	10
513	GRID	2.92E-04	1.68E-07	1.89E-08	564,610	4,186,231	10
514	GRID	1.94E-04	1.08E-07	1.80E-08	564,710	4,186,231	10
515	GRID	1.57E-04	8.53E-08	1.77E-08	564,810	4,186,231	10
516	GRID	1.39E-04	7.38E-08	1.72E-08	564,910	4,186,231	10
517	GRID	1.29E-04	6.72E-08	1.53E-08	565,010	4,186,231	10
518	GRID	1.19E-04	6.12E-08	1.44E-08	565,110	4,186,231	10
519	GRID	9.94E-05	5.13E-08	1.28E-08	565,210	4,186,231	10
520	GRID	7.99E-05	4.16E-08	1.02E-08	565,310	4,186,231	10
521	GRID	6.44E-05	3.40E-08	8.70E-09	565,410	4,186,231	10
522	GRID	5.44E-05	2.90E-08	7.17E-09	565,510	4,186,231	10
523	GRID	4.75E-05	2.54E-08	6.66E-09	565,610	4,186,231	10
524	GRID	4.18E-05	2.24E-08	7.41E-09	565,710	4,186,231	10
525	GRID	3.70E-05	2.00E-08	6.75E-09	565,810	4,186,231	10
526	GRID	1.30E-05	6.99E-09	5.79E-09	563,410	4,186,131	10
527	GRID	1.45E-05	7.83E-09	5.88E-09	563,510	4,186,131	10
528	GRID	1.68E-05	9.01E-09	6.80E-09	563,610	4,186,131	10
529	GRID	1.97E-05	1.06E-08	6.99E-09	563,710	4,186,131	10
530	GRID	2.37E-05	1.26E-08	8.38E-09	563,810	4,186,131	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
531	GRID	2.87E-05	1.54E-08	9.19E-09	563,910	4,186,131	10
532	GRID	3.60E-05	1.93E-08	1.08E-08	564,010	4,186,131	10
533	GRID	4.68E-05	2.52E-08	1.14E-08	564,110	4,186,131	10
534	GRID	6.73E-05	3.67E-08	1.37E-08	564,210	4,186,131	10
535	GRID	2.14E-04	1.21E-07	2.00E-08	564,310	4,186,131	10
536	GRID	1.96E-04	1.11E-07	1.62E-08	564,410	4,186,131	10
537	GRID	2.28E-04	1.31E-07	1.70E-08	564,510	4,186,131	10
538	GRID	2.30E-04	1.33E-07	1.57E-08	564,610	4,186,131	10
539	GRID	1.57E-04	8.81E-08	1.50E-08	564,710	4,186,131	10
540	GRID	1.26E-04	6.95E-08	1.44E-08	564,810	4,186,131	10
541	GRID	1.10E-04	5.94E-08	1.34E-08	564,910	4,186,131	10
542	GRID	9.95E-05	5.31E-08	1.24E-08	565,010	4,186,131	10
543	GRID	9.02E-05	4.76E-08	1.20E-08	565,110	4,186,131	10
544	GRID	7.97E-05	4.19E-08	1.09E-08	565,210	4,186,131	10
545	GRID	6.83E-05	3.60E-08	9.71E-09	565,310	4,186,131	10
546	GRID	5.86E-05	3.11E-08	7.85E-09	565,410	4,186,131	10
547	GRID	5.11E-05	2.72E-08	6.56E-09	565,510	4,186,131	10
548	GRID	4.42E-05	2.37E-08	6.03E-09	565,610	4,186,131	10
549	GRID	3.85E-05	2.08E-08	5.38E-09	565,710	4,186,131	10
550	GRID	3.47E-05	1.88E-08	4.48E-09	565,810	4,186,131	10
551	GRID	1.22E-05	6.57E-09	5.18E-09	563,410	4,186,031	10
552	GRID	1.36E-05	7.34E-09	5.74E-09	563,510	4,186,031	10
553	GRID	1.55E-05	8.36E-09	6.15E-09	563,610	4,186,031	10
554	GRID	1.81E-05	9.72E-09	6.81E-09	563,710	4,186,031	10
555	GRID	2.13E-05	1.14E-08	7.20E-09	563,810	4,186,031	10
556	GRID	2.53E-05	1.36E-08	8.28E-09	563,910	4,186,031	10
557	GRID	3.10E-05	1.67E-08	9.31E-09	564,010	4,186,031	10
558	GRID	3.88E-05	2.10E-08	1.04E-08	564,110	4,186,031	10
559	GRID	5.15E-05	2.81E-08	1.19E-08	564,210	4,186,031	10
560	GRID	8.43E-05	4.68E-08	1.56E-08	564,310	4,186,031	10
561	GRID	1.10E-04	6.15E-08	1.41E-08	564,410	4,186,031	10
562	GRID	2.57E-04	1.50E-07	1.63E-08	564,510	4,186,031	10
563	GRID	1.68E-04	9.67E-08	1.34E-08	564,610	4,186,031	10
564	GRID	1.22E-04	6.90E-08	1.24E-08	564,710	4,186,031	10
565	GRID	1.01E-04	5.62E-08	1.17E-08	564,810	4,186,031	10
566	GRID	8.94E-05	4.88E-08	1.15E-08	564,910	4,186,031	10
567	GRID	8.09E-05	4.37E-08	1.11E-08	565,010	4,186,031	10
568	GRID	7.34E-05	3.93E-08	1.04E-08	565,110	4,186,031	10
569	GRID	6.60E-05	3.52E-08	9.07E-09	565,210	4,186,031	10
570	GRID	5.84E-05	3.11E-08	8.07E-09	565,310	4,186,031	10
571	GRID	5.20E-05	2.78E-08	7.48E-09	565,410	4,186,031	10
572	GRID	4.62E-05	2.47E-08	6.62E-09	565,510	4,186,031	10
573	GRID	4.18E-05	2.24E-08	5.54E-09	565,610	4,186,031	10
574	GRID	3.74E-05	2.01E-08	4.84E-09	565,710	4,186,031	10
575	GRID	3.33E-05	1.80E-08	4.49E-09	565,810	4,186,031	10
576	GRID	1.13E-05	6.13E-09	4.91E-09	563,410	4,185,931	10
577	GRID	1.27E-05	6.87E-09	5.07E-09	563,510	4,185,931	10
578	GRID	1.43E-05	7.74E-09	5.71E-09	563,610	4,185,931	10
579	GRID	1.66E-05	8.94E-09	6.25E-09	563,710	4,185,931	10
580	GRID	1.93E-05	1.04E-08	6.74E-09	563,810	4,185,931	10
581	GRID	2.25E-05	1.21E-08	7.59E-09	563,910	4,185,931	10
582	GRID	2.67E-05	1.44E-08	7.88E-09	564,010	4,185,931	10
583	GRID	3.21E-05	1.74E-08	9.17E-09	564,110	4,185,931	10

Receptor Number	Receptor Type	Cancer Risk # in a million	Chronic Hazard Index	Acute Hazard Index	UTM Easting	UTM Northing	ZONE
584	GRID	4.16E-05	2.27E-08	1.06E-08	564,210	4,185,931	10
585	GRID	5.47E-05	3.01E-08	1.16E-08	564,310	4,185,931	10
586	GRID	6.83E-05	3.79E-08	1.15E-08	564,410	4,185,931	10
587	GRID	9.11E-05	5.14E-08	1.28E-08	564,510	4,185,931	10
588	GRID	9.98E-05	5.65E-08	1.17E-08	564,610	4,185,931	10
589	GRID	8.99E-05	5.04E-08	1.05E-08	564,710	4,185,931	10
590	GRID	8.03E-05	4.46E-08	1.04E-08	564,810	4,185,931	10
591	GRID	7.31E-05	4.01E-08	1.01E-08	564,910	4,185,931	10
592	GRID	6.71E-05	3.65E-08	9.37E-09	565,010	4,185,931	10
593	GRID	6.16E-05	3.33E-08	8.77E-09	565,110	4,185,931	10
594	GRID	5.64E-05	3.03E-08	8.32E-09	565,210	4,185,931	10
595	GRID	5.10E-05	2.74E-08	7.60E-09	565,310	4,185,931	10
596	GRID	4.59E-05	2.47E-08	6.66E-09	565,410	4,185,931	10
597	GRID	4.18E-05	2.25E-08	6.04E-09	565,510	4,185,931	10
598	GRID	3.79E-05	2.04E-08	5.30E-09	565,610	4,185,931	10
599	GRID	3.48E-05	1.88E-08	4.76E-09	565,710	4,185,931	10
600	GRID	3.19E-05	1.72E-08	4.25E-09	565,810	4,185,931	10
601	GRID	1.06E-05	5.76E-09	4.53E-09	563,410	4,185,831	10
602	GRID	1.19E-05	6.42E-09	4.93E-09	563,510	4,185,831	10
603	GRID	1.33E-05	7.20E-09	5.13E-09	563,610	4,185,831	10
604	GRID	1.53E-05	8.26E-09	5.82E-09	563,710	4,185,831	10
605	GRID	1.74E-05	9.37E-09	6.05E-09	563,810	4,185,831	10
606	GRID	1.97E-05	1.06E-08	6.74E-09	563,910	4,185,831	10
607	GRID	2.31E-05	1.25E-08	7.24E-09	564,010	4,185,831	10
608	GRID	2.75E-05	1.49E-08	7.96E-09	564,110	4,185,831	10
609	GRID	3.44E-05	1.88E-08	9.52E-09	564,210	4,185,831	10
610	GRID	4.05E-05	2.22E-08	9.57E-09	564,310	4,185,831	10
611	GRID	4.91E-05	2.71E-08	1.06E-08	564,410	4,185,831	10
612	GRID	5.95E-05	3.31E-08	1.06E-08	564,510	4,185,831	10
613	GRID	6.55E-05	3.66E-08	9.97E-09	564,610	4,185,831	10
614	GRID	6.55E-05	3.64E-08	9.40E-09	564,710	4,185,831	10
615	GRID	6.28E-05	3.47E-08	9.02E-09	564,810	4,185,831	10
616	GRID	5.96E-05	3.27E-08	8.87E-09	564,910	4,185,831	10
617	GRID	5.58E-05	3.05E-08	8.31E-09	565,010	4,185,831	10
618	GRID	5.21E-05	2.83E-08	8.05E-09	565,110	4,185,831	10
619	GRID	4.85E-05	2.62E-08	7.58E-09	565,210	4,185,831	10
620	GRID	4.46E-05	2.41E-08	6.64E-09	565,310	4,185,831	10
621	GRID	4.07E-05	2.20E-08	5.98E-09	565,410	4,185,831	10
622	GRID	3.76E-05	2.03E-08	5.55E-09	565,510	4,185,831	10
623	GRID	3.46E-05	1.87E-08	5.20E-09	565,610	4,185,831	10
624	GRID	3.18E-05	1.72E-08	4.80E-09	565,710	4,185,831	10
625	GRID	2.96E-05	1.60E-08	4.31E-09	565,810	4,185,831	10

```
 *** ISCST3 - VERSION 99155 ***    *** MACARTHUR TRANSIT VILLAGE                                                       ***        09/14/07
                                   *** HEALTH RISK ASSESSMENT                                                          ***        14:31:40
**MODELOPTs:                                                                                                                      PAGE   1
CONC                          RURAL  ELEV          DFAULT

                                              ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates  1 Short Term Average(s) of:   1-HR
    and Calculates PERIOD Averages

**This Run Includes:    36 Source(s);     36 Source Group(s); and     625 Receptor(s)

**The Model Assumes A Pollutant Type of:  OTHER

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =    0.000     ;    Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =     1.7 MB of RAM.

**Input Runstream File:          P:\MGB0701\HRA\MACTVILL.INP
```

```
**Output Print File:             P:\MGB0701\HRA\MACTVILL.OUT
**Detailed Error/Message File:   P:\MGB0701\HRA\MACTVILL.ERR
```

**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
580_01	0	0.30400E-03	563820.0	4186731.0	12.0	3.00	150.00	21.95	16.30	3.05	
580_02	0	0.30400E-03	563964.0	4186689.0	14.0	3.00	150.00	21.95	16.30	3.05	
580_03	0	0.30400E-03	564108.0	4186647.0	15.0	3.00	150.00	21.95	16.30	3.05	
580_04	0	0.30400E-03	564252.0	4186605.0	16.0	3.00	150.00	21.95	16.30	3.05	
580_05	0	0.30400E-03	564396.0	4186563.0	17.0	3.00	150.00	21.95	16.30	3.05	
580_06	0	0.30400E-03	564540.0	4186521.0	17.0	3.00	150.00	21.95	16.30	3.05	
580_07	0	0.30400E-03	564684.0	4186479.0	18.0	3.00	150.00	21.95	16.30	3.05	
580_08	0	0.30400E-03	564828.0	4186437.0	19.1	3.00	150.00	21.95	16.30	3.05	
580_09	0	0.30400E-03	564971.0	4186395.0	24.0	3.00	150.00	21.95	16.30	3.05	
24_01	0	0.30400E-03	564652.0	4188016.0	32.0	3.00	21.95	150.00	10.20	3.05	
24_02	0	0.30400E-03	564625.0	4187869.0	30.5	3.00	21.95	150.00	10.20	3.05	
24_03	0	0.30400E-03	564599.0	4187721.0	29.0	3.00	21.95	150.00	10.20	3.05	
24_04	0	0.30400E-03	564572.0	4187573.0	28.0	3.00	21.95	150.00	10.20	3.05	
24_05	0	0.30400E-03	564545.0	4187426.0	26.0	3.00	21.95	150.00	10.20	3.05	
24_06	0	0.30400E-03	564519.0	4187278.0	24.6	3.00	21.95	150.00	10.20	3.05	
24_07	0	0.30400E-03	564492.0	4187130.0	23.0	3.00	21.95	150.00	10.20	3.05	
24_08	0	0.30400E-03	564465.0	4186983.0	21.0	3.00	21.95	150.00	10.20	3.05	
24_09	0	0.30400E-03	564439.0	4186835.0	20.0	3.00	21.95	150.00	10.20	3.05	
24_10	0	0.30400E-03	564412.0	4186688.0	18.0	3.00	21.95	150.00	10.20	3.05	
24_11	0	0.30400E-03	564385.0	4186540.0	16.9	3.00	21.95	150.00	10.20	3.05	
24_12	0	0.30400E-03	564359.0	4186392.0	15.0	3.00	21.95	150.00	10.20	3.05	
24_13	0	0.30400E-03	564332.0	4186245.0	14.0	3.00	21.95	150.00	10.20	3.05	
24_14	0	0.30400E-03	564305.0	4186097.0	12.0	3.00	21.95	150.00	10.20	3.05	
TELE_01	0	0.36400E-03	564855.0	4187762.0	32.0	3.00	18.29	150.00	11.40	3.05	
TELE_02	0	0.36400E-03	564826.0	4187615.0	31.0	3.00	18.29	150.00	11.40	3.05	
TELE_03	0	0.36400E-03	564796.0	4187468.0	29.0	3.00	18.29	150.00	11.40	3.05	
TELE_04	0	0.36400E-03	564767.0	4187321.0	27.0	3.00	18.29	150.00	11.40	3.05	
TELE_05	0	0.36400E-03	564737.0	4187174.0	26.0	3.00	18.29	150.00	11.40	3.05	
TELE_06	0	0.36400E-03	564708.0	4187027.0	24.0	3.00	18.29	150.00	11.40	3.05	
TELE_07	0	0.36400E-03	564678.0	4186880.0	22.0	3.00	18.29	150.00	11.40	3.05	
TELE_08	0	0.36400E-03	564649.0	4186733.0	20.0	3.00	18.29	150.00	11.40	3.05	
TELE_09	0	0.36400E-03	564619.0	4186585.0	18.0	3.00	18.29	150.00	11.40	3.05	
TELE_10	0	0.36400E-03	564589.0	4186438.0	17.0	3.00	18.29	150.00	11.40	3.05	
TELE_11	0	0.36400E-03	564560.0	4186291.0	16.4	3.00	18.29	150.00	11.40	3.05	
TELE_12	0	0.36400E-03	564530.0	4186144.0	16.0	3.00	18.29	150.00	11.40	3.05	
TELE_13	0	0.36400E-03	564501.0	4185997.0	15.1	3.00	18.29	150.00	11.40	3.05	

**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
580_01	580_01 ,
580_02	580_02 ,
580_03	580_03 ,
580_04	580_04 ,
580_05	580_05 ,
580_06	580_06 ,
580_07	580_07 ,
580_08	580_08 ,
580_09	580_09 ,
24_01	24_01 ,
24_02	24_02 ,
24_03	24_03 ,
24_04	24_04 ,
24_05	24_05 ,
24_06	24_06 ,
24_07	24_07 ,

24_08	24_08	,
24_09	24_09	,
24_10	24_10	,
24_11	24_11	,

**MODELOPTs:
CONC RURAL ELEV DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
24_12	24_12 ,
24_13	24_13 ,
24_14	24_14 ,
TELE_01	TELE_01 ,
TELE_02	TELE_02 ,
TELE_03	TELE_03 ,
TELE_04	TELE_04 ,
TELE_05	TELE_05 ,
TELE_06	TELE_06 ,
TELE_07	TELE_07 ,
TELE_08	TELE_08 ,
TELE_09	TELE_09 ,
TELE_10	TELE_10 ,
TELE_11	TELE_11 ,
TELE_12	TELE_12 ,
TELE_13	TELE_13 ,

**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: 1   ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

```
 563410.0,  563510.0,  563610.0,  563710.0,  563810.0,  563910.0,  564010.0,  564110.0,  564210.0,  564310.0,
 564410.0,  564510.0,  564610.0,  564710.0,  564810.0,  564910.0,  565010.0,  565110.0,  565210.0,  565310.0,
 565410.0,  565510.0,  565610.0,  565710.0,  565810.0,
```

*** Y-COORDINATES OF GRID ***
(METERS)

```
4188231.0, 4188131.0, 4188031.0, 4187931.0, 4187831.0, 4187731.0, 4187631.0, 4187531.0, 4187431.0, 4187331.0,
4187231.0, 4187131.0, 4187031.0, 4186931.0, 4186831.0, 4186731.0, 4186631.0, 4186531.0, 4186431.0, 4186331.0,
4186231.0, 4186131.0, 4186031.0, 4185931.0, 4185831.0,
```

**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** NETWORK ID: 1   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 563410.00	563510.00	563610.00	563710.00	563810.00	563910.00	564010.00	564110.00	564210.00
4185831.00	5.00	6.00	6.00	7.01	7.99	7.99	8.99	9.72	10.00
4185931.00	5.00	6.00	7.01	7.99	7.99	8.99	9.85	10.00	11.00
4186031.00	5.39	6.00	7.01	7.99	8.99	10.00	10.00	11.00	11.00
4186131.00	6.00	6.00	7.99	7.99	8.99	10.00	11.00	11.83	12.01
4186231.00	6.00	7.01	7.99	8.99	10.00	10.30	11.00	12.01	12.98
4186331.00	6.00	7.28	7.99	8.99	10.00	11.00	12.01	12.83	13.99
4186431.00	7.01	7.99	8.99	10.00	11.00	12.01	12.01	12.98	13.99
4186531.00	7.83	7.99	8.99	10.00	11.00	12.01	12.98	13.99	15.00
4186631.00	7.99	8.99	10.00	11.00	12.01	12.98	13.99	15.00	16.00
4186731.00	8.84	10.00	10.00	11.00	12.01	13.38	15.00	16.00	17.01
4186831.00	8.99	10.00	11.00	12.01	12.98	13.99	15.39	17.01	17.98
4186931.00	10.00	11.00	12.01	12.98	13.99	15.00	16.00	17.83	18.99
4187031.00	10.00	11.00	12.01	13.84	15.00	16.00	17.01	17.98	18.99
4187131.00	11.00	12.01	12.98	13.99	16.00	17.01	17.98	18.99	19.99
4187231.00	12.01	12.98	13.99	15.00	16.00	17.83	18.99	19.99	21.00
4187331.00	12.01	13.84	15.00	16.00	17.01	17.98	19.29	21.00	22.01
4187431.00	12.98	13.99	15.85	17.01	17.98	18.99	19.99	22.01	22.98
4187531.00	13.99	15.00	16.00	17.37	18.84	19.99	21.00	22.83	23.99
4187631.00	13.99	15.85	17.01	17.98	18.99	19.99	22.01	23.84	24.99
4187731.00	13.99	16.00	17.01	17.98	19.99	21.00	22.01	23.99	24.99
4187831.00	13.99	16.00	17.01	18.99	19.99	21.00	22.01	23.99	24.54
4187931.00	13.11	13.99	15.09	18.71	18.84	21.00	22.01	23.99	24.84
4188031.00	12.74	12.74	12.98	18.38	19.99	21.00	22.98	23.99	24.99
4188131.00	13.99	13.99	16.00	17.98	19.39	21.00	22.98	24.38	26.00
4188231.00	13.99	15.00	16.40	17.98	18.99	21.00	22.37	23.99	24.99

**MODELOPTs:
CONC RURAL ELEV DFAULT

*** NETWORK ID: 1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 564310.00	564410.00	564510.00	564610.00	564710.00	564810.00	564910.00	565010.00	565110.00
4185831.00	11.00	11.00	12.01	14.39	16.00	13.99	12.01	8.44	15.06
4185931.00	11.00	12.01	12.83	19.29	20.73	17.89	14.45	11.46	8.90
4186031.00	12.01	12.98	16.00	21.40	23.99	22.34	17.01	12.98	11.00
4186131.00	12.98	13.99	16.00	17.10	24.38	24.60	19.35	16.00	13.90
4186231.00	13.99	15.00	16.00	17.01	18.65	26.00	23.90	18.90	16.00
4186331.00	13.99	15.00	16.00	17.01	17.98	20.63	25.73	22.62	17.98
4186431.00	15.00	16.00	16.00	17.01	17.98	18.38	22.98	23.99	19.72
4186531.00	16.00	17.01	17.01	17.98	17.98	18.99	19.99	21.00	21.00
4186631.00	17.01	17.98	17.98	18.99	18.99	19.99	20.85	21.28	22.01
4186731.00	17.98	18.99	18.99	19.99	19.99	21.00	22.01	22.01	22.98
4186831.00	18.84	19.99	19.99	21.00	21.82	22.01	22.74	22.98	23.99
4186931.00	19.84	19.99	21.00	22.01	22.98	22.98	23.84	23.99	24.99
4187031.00	19.99	21.00	22.01	22.98	23.99	24.72	24.99	24.99	26.00
4187131.00	21.00	22.01	22.98	23.99	24.99	26.00	26.00	26.00	27.01
4187231.00	22.01	22.98	23.99	24.99	26.00	26.82	27.01	27.98	27.98
4187331.00	22.98	23.99	24.99	26.00	27.01	27.98	27.98	28.99	29.72
4187431.00	23.99	24.99	26.00	27.01	27.98	28.99	29.99	29.99	31.00
4187531.00	24.99	26.00	27.01	27.98	28.99	29.99	31.00	31.00	32.00
4187631.00	26.00	26.82	27.98	28.99	29.99	31.00	32.00	32.00	32.98
4187731.00	26.00	26.00	27.01	28.99	31.00	32.00	32.00	32.98	33.99
4187831.00	24.69	23.99	25.30	29.14	30.54	32.00	32.98	33.99	34.99
4187931.00	24.99	26.00	29.29	31.00	31.00	32.00	33.99	34.99	36.00
4188031.00	26.00	27.83	29.38	31.00	32.00	33.28	34.99	36.00	37.00
4188131.00	27.01	27.98	29.99	31.00	32.28	33.99	36.00	37.00	37.98
4188231.00	27.01	27.98	29.99	31.00	32.98	34.38	36.00	37.37	37.98

**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** NETWORK ID: 1   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 565210.00	565310.00	565410.00	565510.00	565610.00	565710.00	565810.00
4185831.00	24.84	19.63	17.37	22.10	32.37	36.70	37.98
4185931.00	24.05	27.89	22.74	17.43	30.39	29.99	29.26
4186031.00	10.64	31.27	30.72	25.45	23.53	26.00	36.12
4186131.00	10.88	13.29	32.98	29.99	26.00	29.14	38.10
4186231.00	14.45	12.01	19.42	31.00	28.16	31.55	37.98
4186331.00	17.98	17.43	15.73	24.26	23.99	27.37	33.38
4186431.00	19.99	19.99	19.99	19.99	22.37	25.30	37.98
4186531.00	21.28	22.01	22.98	23.99	22.98	23.74	23.99
4186631.00	23.29	24.29	26.73	26.73	26.00	26.00	24.44
4186731.00	23.99	26.40	31.00	29.99	28.99	28.99	28.44
4186831.00	23.99	26.00	31.55	36.27	32.00	31.73	32.00
4186931.00	24.99	26.40	29.54	34.47	36.00	33.99	34.72
4187031.00	27.01	27.98	28.99	30.54	36.09	37.83	38.74
4187131.00	27.98	27.98	28.99	29.99	34.11	40.08	44.29
4187231.00	27.98	28.99	28.99	29.99	33.38	40.29	45.38
4187331.00	29.99	29.99	29.99	30.85	34.29	42.55	45.99
4187431.00	31.00	30.88	31.00	32.00	34.29	36.55	44.04
4187531.00	32.00	32.00	32.74	33.99	34.38	36.00	41.09
4187631.00	32.98	33.99	33.99	34.99	34.99	36.00	39.84
4187731.00	33.99	33.99	34.99	36.00	37.73	39.29	42.82
4187831.00	34.99	36.00	36.00	36.27	42.98	42.28	47.27
4187931.00	36.00	37.00	37.00	36.27	42.00	45.38	48.10
4188031.00	37.98	37.98	37.98	38.98	40.54	42.00	43.53
4188131.00	38.83	38.98	39.99	39.99	41.00	41.00	42.00
4188231.00	38.98	39.99	41.00	42.00	42.00	42.00	42.00

**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2000 1 1 0
AND END DATE: 2000 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: P:\MGB0701\HRA\OST003RA00.ASC
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 1804   UPPER AIR STATION NO.: 1804
NAME: UNKNOWN   NAME: UNKNOWN
YEAR: 2000   YEAR: 2000

YR	MN	DY	HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
00	01	01	01	3.0	2.55	283.5	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	02	355.0	1.83	283.3	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	03	94.5	1.97	283.2	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	04	152.6	3.89	282.3	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	05	164.1	4.47	281.8	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	06	172.0	5.01	281.9	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	07	178.7	2.73	282.0	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	08	148.7	2.19	282.0	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	09	133.5	2.37	281.8	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	10	153.8	1.92	282.0	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	11	351.9	1.25	282.8	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	12	53.1	2.15	283.1	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	13	112.2	2.59	282.9	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	14	127.9	1.92	283.3	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	15	104.2	1.70	284.3	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	16	125.0	7.29	284.5	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	17	119.0	8.72	284.6	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	18	126.9	7.64	284.0	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	19	130.0	6.97	283.8	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	20	124.8	5.99	283.6	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	21	111.9	5.50	283.4	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	22	126.9	5.10	283.0	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	23	133.0	6.44	282.8	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
00	01	01	24	155.4	4.74	282.3	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

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**MODELOPTs:
CONC                          RURAL  ELEV         DFAULT

                          *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                         ** CONC OF OTHER    IN MICROGRAMS/M**3                       **

                                                                                             NETWORK
GROUP ID                      AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

580_01    1ST HIGHEST VALUE IS     394.65158 AT (  563910.00,  4186731.00,     13.38,      0.00)  GC   1
          2ND HIGHEST VALUE IS     111.55511 AT (  564010.00,  4186731.00,     15.00,      0.00)  GC   1
          3RD HIGHEST VALUE IS      75.57736 AT (  564010.00,  4186631.00,     13.99,      0.00)  GC   1
          4TH HIGHEST VALUE IS      70.57214 AT (  563910.00,  4186831.00,     13.99,      0.00)  GC   1
          5TH HIGHEST VALUE IS      65.29279 AT (  563910.00,  4186631.00,     12.98,      0.00)  GC   1
          6TH HIGHEST VALUE IS      55.78636 AT (  563810.00,  4186831.00,     12.98,      0.00)  GC   1
          7TH HIGHEST VALUE IS      54.23162 AT (  563810.00,  4186731.00,     12.01,      0.00)  GC   1
          8TH HIGHEST VALUE IS      46.48860 AT (  564010.00,  4186831.00,     15.39,      0.00)  GC   1
          9TH HIGHEST VALUE IS      41.43581 AT (  564110.00,  4186631.00,     15.00,      0.00)  GC   1
         10TH HIGHEST VALUE IS      40.79701 AT (  564110.00,  4186731.00,     16.00,      0.00)  GC   1

580_02    1ST HIGHEST VALUE IS     179.81006 AT (  564110.00,  4186631.00,     15.00,      0.00)  GC   1
          2ND HIGHEST VALUE IS     162.84879 AT (  564010.00,  4186731.00,     15.00,      0.00)  GC   1
          3RD HIGHEST VALUE IS     111.15687 AT (  564110.00,  4186731.00,     16.00,      0.00)  GC   1
          4TH HIGHEST VALUE IS      78.13439 AT (  564010.00,  4186631.00,     13.99,      0.00)  GC   1
          5TH HIGHEST VALUE IS      67.85477 AT (  564210.00,  4186631.00,     16.00,      0.00)  GC   1
          6TH HIGHEST VALUE IS      48.08570 AT (  564210.00,  4186731.00,     17.01,      0.00)  GC   1
          7TH HIGHEST VALUE IS      45.53656 AT (  564010.00,  4186831.00,     15.39,      0.00)  GC   1
          8TH HIGHEST VALUE IS      43.02814 AT (  564110.00,  4186531.00,     13.99,      0.00)  GC   1
          9TH HIGHEST VALUE IS      42.14538 AT (  564110.00,  4186831.00,     17.01,      0.00)  GC   1
         10TH HIGHEST VALUE IS      39.24870 AT (  563910.00,  4186731.00,     13.38,      0.00)  GC   1

580_03    1ST HIGHEST VALUE IS     509.52097 AT (  564210.00,  4186631.00,     16.00,      0.00)  GC   1
          2ND HIGHEST VALUE IS     106.18523 AT (  564310.00,  4186631.00,     17.01,      0.00)  GC   1
          3RD HIGHEST VALUE IS      81.57614 AT (  564210.00,  4186731.00,     17.01,      0.00)  GC   1
          4TH HIGHEST VALUE IS      70.66853 AT (  564110.00,  4186731.00,     16.00,      0.00)  GC   1
          5TH HIGHEST VALUE IS      62.19684 AT (  564110.00,  4186631.00,     15.00,      0.00)  GC   1
          6TH HIGHEST VALUE IS      60.26582 AT (  564310.00,  4186531.00,     16.00,      0.00)  GC   1
          7TH HIGHEST VALUE IS      58.49878 AT (  564210.00,  4186531.00,     15.00,      0.00)  GC   1
          8TH HIGHEST VALUE IS      48.54594 AT (  564310.00,  4186731.00,     17.98,      0.00)  GC   1
          9TH HIGHEST VALUE IS      37.90530 AT (  564410.00,  4186631.00,     17.98,      0.00)  GC   1
         10TH HIGHEST VALUE IS      37.04705 AT (  564410.00,  4186531.00,     17.01,      0.00)  GC   1
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                                         *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                                      ** CONC OF OTHER    IN MICROGRAMS/M**3                         **

                                                                                                 NETWORK
GROUP ID                      AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

580_04    1ST HIGHEST VALUE IS     227.70995 AT (  564310.00,  4186631.00,     17.01,      0.00)  GC   1
          2ND HIGHEST VALUE IS     125.98892 AT (  564410.00,  4186531.00,     17.01,      0.00)  GC   1
          3RD HIGHEST VALUE IS     123.33939 AT (  564410.00,  4186631.00,     17.98,      0.00)  GC   1
          4TH HIGHEST VALUE IS      70.99934 AT (  564310.00,  4186531.00,     16.00,      0.00)  GC   1
          5TH HIGHEST VALUE IS      56.74363 AT (  564510.00,  4186531.00,     17.01,      0.00)  GC   1
          6TH HIGHEST VALUE IS      54.20146 AT (  564310.00,  4186731.00,     17.98,      0.00)  GC   1
          7TH HIGHEST VALUE IS      48.90529 AT (  564510.00,  4186631.00,     17.98,      0.00)  GC   1
          8TH HIGHEST VALUE IS      45.51592 AT (  564410.00,  4186731.00,     18.99,      0.00)  GC   1
          9TH HIGHEST VALUE IS      42.69704 AT (  564210.00,  4186631.00,     16.00,      0.00)  GC   1
         10TH HIGHEST VALUE IS      38.35489 AT (  564210.00,  4186731.00,     17.01,      0.00)  GC   1

580_05    1ST HIGHEST VALUE IS     373.81567 AT (  564510.00,  4186531.00,     17.01,      0.00)  GC   1
          2ND HIGHEST VALUE IS      95.69937 AT (  564610.00,  4186531.00,     17.98,      0.00)  GC   1
          3RD HIGHEST VALUE IS      94.19004 AT (  564510.00,  4186631.00,     17.98,      0.00)  GC   1
          4TH HIGHEST VALUE IS      92.98544 AT (  564410.00,  4186631.00,     17.98,      0.00)  GC   1
          5TH HIGHEST VALUE IS      66.48872 AT (  564410.00,  4186531.00,     17.01,      0.00)  GC   1
          6TH HIGHEST VALUE IS      51.52194 AT (  564510.00,  4186431.00,     16.00,      0.00)  GC   1
          7TH HIGHEST VALUE IS      50.77481 AT (  564610.00,  4186631.00,     18.99,      0.00)  GC   1
          8TH HIGHEST VALUE IS      49.44381 AT (  564610.00,  4186431.00,     17.01,      0.00)  GC   1
          9TH HIGHEST VALUE IS      36.31362 AT (  564510.00,  4186731.00,     18.99,      0.00)  GC   1
         10TH HIGHEST VALUE IS      35.53508 AT (  564710.00,  4186531.00,     17.98,      0.00)  GC   1

580_06    1ST HIGHEST VALUE IS     330.94791 AT (  564610.00,  4186531.00,     17.98,      0.00)  GC   1
          2ND HIGHEST VALUE IS     129.47211 AT (  564710.00,  4186531.00,     17.98,      0.00)  GC   1
          3RD HIGHEST VALUE IS      93.93850 AT (  564710.00,  4186431.00,     17.98,      0.00)  GC   1
          4TH HIGHEST VALUE IS      63.85933 AT (  564610.00,  4186631.00,     18.99,      0.00)  GC   1
          5TH HIGHEST VALUE IS      63.55503 AT (  564610.00,  4186431.00,     17.01,      0.00)  GC   1
          6TH HIGHEST VALUE IS      49.32279 AT (  564810.00,  4186431.00,     18.38,      0.00)  GC   1
          7TH HIGHEST VALUE IS      48.57354 AT (  564710.00,  4186631.00,     18.99,      0.00)  GC   1
          8TH HIGHEST VALUE IS      46.94300 AT (  564810.00,  4186531.00,     18.99,      0.00)  GC   1
          9TH HIGHEST VALUE IS      46.49178 AT (  564510.00,  4186631.00,     17.98,      0.00)  GC   1
         10TH HIGHEST VALUE IS      40.52913 AT (  564510.00,  4186531.00,     17.01,      0.00)  GC   1
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**MODELOPTs:
CONC                          RURAL  ELEV          DFAULT

                              *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                              ** CONC OF OTHER    IN MICROGRAMS/M**3                    **

                                                                                              NETWORK
GROUP ID                  AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

580_07   1ST HIGHEST VALUE IS     216.06628 AT (  564810.00,  4186431.00,     18.38,      0.00)  GC   1
         2ND HIGHEST VALUE IS     128.61667 AT (  564710.00,  4186531.00,     17.98,      0.00)  GC   1
         3RD HIGHEST VALUE IS     110.05912 AT (  564810.00,  4186531.00,     18.99,      0.00)  GC   1
         4TH HIGHEST VALUE IS      85.50004 AT (  564910.00,  4186431.00,     22.98,      0.00)  GC   1
         5TH HIGHEST VALUE IS      66.06922 AT (  564710.00,  4186431.00,     17.98,      0.00)  GC   1
         6TH HIGHEST VALUE IS      51.54708 AT (  564910.00,  4186531.00,     19.99,      0.00)  GC   1
         7TH HIGHEST VALUE IS      45.20801 AT (  564810.00,  4186331.00,     20.63,      0.00)  GC   1
         8TH HIGHEST VALUE IS      41.49621 AT (  564910.00,  4186331.00,     25.73,      0.00)  GC   1
         9TH HIGHEST VALUE IS      41.21858 AT (  564810.00,  4186631.00,     19.99,      0.00)  GC   1
        10TH HIGHEST VALUE IS      39.43692 AT (  564710.00,  4186631.00,     18.99,      0.00)  GC   1

580_08   1ST HIGHEST VALUE IS     498.46805 AT (  564910.00,  4186431.00,     22.98,      0.00)  GC   1
         2ND HIGHEST VALUE IS     131.70648 AT (  565010.00,  4186431.00,     23.99,      0.00)  GC   1
         3RD HIGHEST VALUE IS      76.46766 AT (  564910.00,  4186531.00,     19.99,      0.00)  GC   1
         4TH HIGHEST VALUE IS      73.14332 AT (  565010.00,  4186331.00,     22.62,      0.00)  GC   1
         5TH HIGHEST VALUE IS      57.45426 AT (  564910.00,  4186331.00,     25.73,      0.00)  GC   1
         6TH HIGHEST VALUE IS      57.32919 AT (  564810.00,  4186531.00,     18.99,      0.00)  GC   1
         7TH HIGHEST VALUE IS      51.27850 AT (  565010.00,  4186531.00,     21.00,      0.00)  GC   1
         8TH HIGHEST VALUE IS      44.03965 AT (  565110.00,  4186431.00,     19.72,      0.00)  GC   1
         9TH HIGHEST VALUE IS      43.51595 AT (  565110.00,  4186331.00,     17.98,      0.00)  GC   1
        10TH HIGHEST VALUE IS      42.36307 AT (  564810.00,  4186431.00,     18.38,      0.00)  GC   1

580_09   1ST HIGHEST VALUE IS     181.07419 AT (  565010.00,  4186431.00,     23.99,      0.00)  GC   1
         2ND HIGHEST VALUE IS     153.95381 AT (  565110.00,  4186331.00,     17.98,      0.00)  GC   1
         3RD HIGHEST VALUE IS     127.29990 AT (  565110.00,  4186431.00,     19.72,      0.00)  GC   1
         4TH HIGHEST VALUE IS      70.43948 AT (  565210.00,  4186331.00,     17.98,      0.00)  GC   1
         5TH HIGHEST VALUE IS      64.56948 AT (  565010.00,  4186331.00,     22.62,      0.00)  GC   1
         6TH HIGHEST VALUE IS      52.78775 AT (  565210.00,  4186431.00,     19.99,      0.00)  GC   1
         7TH HIGHEST VALUE IS      47.36550 AT (  565010.00,  4186531.00,     21.00,      0.00)  GC   1
         8TH HIGHEST VALUE IS      45.24366 AT (  565110.00,  4186531.00,     21.00,      0.00)  GC   1
         9TH HIGHEST VALUE IS      39.92992 AT (  565110.00,  4186231.00,     16.00,      0.00)  GC   1
        10TH HIGHEST VALUE IS      35.35676 AT (  565210.00,  4186231.00,     14.45,      0.00)  GC   1
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**MODELOPTs:
CONC   RURAL   ELEV   DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3   **

GROUP ID		AVERAGE CONC		RECEPTOR (XR,	YR,	ZELEV,	ZFLAG)	OF TYPE	NETWORK GRID-ID
24_01	1ST HIGHEST VALUE IS	283.70850	AT (	564710.00,	4188131.00,	32.28,	0.00)	GC	1
	2ND HIGHEST VALUE IS	200.21106	AT (	564710.00,	4188031.00,	32.00,	0.00)	GC	1
	3RD HIGHEST VALUE IS	71.87793	AT (	564810.00,	4188031.00,	33.28,	0.00)	GC	1
	4TH HIGHEST VALUE IS	68.61227	AT (	564610.00,	4188131.00,	31.00,	0.00)	GC	1
	5TH HIGHEST VALUE IS	68.48192	AT (	564810.00,	4188131.00,	33.99,	0.00)	GC	1
	6TH HIGHEST VALUE IS	65.92650	AT (	564710.00,	4188231.00,	32.98,	0.00)	GC	1
	7TH HIGHEST VALUE IS	46.97136	AT (	564610.00,	4188231.00,	31.00,	0.00)	GC	1
	8TH HIGHEST VALUE IS	46.60049	AT (	564710.00,	4187931.00,	31.00,	0.00)	GC	1
	9TH HIGHEST VALUE IS	39.14761	AT (	564810.00,	4187931.00,	32.00,	0.00)	GC	1
	10TH HIGHEST VALUE IS	37.85601	AT (	564610.00,	4188031.00,	31.00,	0.00)	GC	1
24_02	1ST HIGHEST VALUE IS	178.50911	AT (	564710.00,	4187931.00,	31.00,	0.00)	GC	1
	2ND HIGHEST VALUE IS	104.71803	AT (	564610.00,	4187931.00,	31.00,	0.00)	GC	1
	3RD HIGHEST VALUE IS	99.47933	AT (	564710.00,	4188031.00,	32.00,	0.00)	GC	1
	4TH HIGHEST VALUE IS	87.49395	AT (	564610.00,	4188031.00,	31.00,	0.00)	GC	1
	5TH HIGHEST VALUE IS	82.50765	AT (	564710.00,	4187831.00,	30.54,	0.00)	GC	1
	6TH HIGHEST VALUE IS	61.26487	AT (	564810.00,	4187931.00,	32.00,	0.00)	GC	1
	7TH HIGHEST VALUE IS	47.24913	AT (	564810.00,	4187831.00,	32.00,	0.00)	GC	1
	8TH HIGHEST VALUE IS	42.40255	AT (	564810.00,	4188031.00,	33.28,	0.00)	GC	1
	9TH HIGHEST VALUE IS	39.32555	AT (	564710.00,	4188131.00,	32.28,	0.00)	GC	1
	10TH HIGHEST VALUE IS	36.83291	AT (	564610.00,	4187831.00,	29.14,	0.00)	GC	1
24_03	1ST HIGHEST VALUE IS	287.33453	AT (	564610.00,	4187731.00,	28.99,	0.00)	GC	1
	2ND HIGHEST VALUE IS	182.18465	AT (	564610.00,	4187831.00,	29.14,	0.00)	GC	1
	3RD HIGHEST VALUE IS	119.61559	AT (	564710.00,	4187831.00,	30.54,	0.00)	GC	1
	4TH HIGHEST VALUE IS	107.28705	AT (	564710.00,	4187731.00,	31.00,	0.00)	GC	1
	5TH HIGHEST VALUE IS	60.92158	AT (	564610.00,	4187931.00,	31.00,	0.00)	GC	1
	6TH HIGHEST VALUE IS	50.07797	AT (	564710.00,	4187931.00,	31.00,	0.00)	GC	1
	7TH HIGHEST VALUE IS	46.68767	AT (	564810.00,	4187731.00,	32.00,	0.00)	GC	1
	8TH HIGHEST VALUE IS	44.45626	AT (	564810.00,	4187831.00,	32.00,	0.00)	GC	1
	9TH HIGHEST VALUE IS	44.13673	AT (	564710.00,	4187631.00,	29.99,	0.00)	GC	1
	10TH HIGHEST VALUE IS	37.24395	AT (	564510.00,	4187831.00,	25.30,	0.00)	GC	1

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**MODELOPTs:
CONC                          RURAL  ELEV          DFAULT

                                     *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                                 ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

                                                                                                  NETWORK
GROUP ID                        AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

24_04     1ST HIGHEST VALUE IS     371.81808 AT (  564610.00,  4187631.00,      28.99,       0.00)  GC   1
          2ND HIGHEST VALUE IS     174.50734 AT (  564610.00,  4187731.00,      28.99,       0.00)  GC   1
          3RD HIGHEST VALUE IS      96.07343 AT (  564710.00,  4187631.00,      29.99,       0.00)  GC   1
          4TH HIGHEST VALUE IS      75.13128 AT (  564610.00,  4187531.00,      27.98,       0.00)  GC   1
          5TH HIGHEST VALUE IS      63.35150 AT (  564710.00,  4187731.00,      31.00,       0.00)  GC   1
          6TH HIGHEST VALUE IS      60.13373 AT (  564710.00,  4187531.00,      28.99,       0.00)  GC   1
          7TH HIGHEST VALUE IS      52.28831 AT (  564510.00,  4187731.00,      27.01,       0.00)  GC   1
          8TH HIGHEST VALUE IS      42.48292 AT (  564510.00,  4187631.00,      27.98,       0.00)  GC   1
          9TH HIGHEST VALUE IS      39.79185 AT (  564810.00,  4187631.00,      31.00,       0.00)  GC   1
         10TH HIGHEST VALUE IS      39.37424 AT (  564610.00,  4187831.00,      29.14,       0.00)  GC   1

24_05     1ST HIGHEST VALUE IS     250.03844 AT (  564610.00,  4187531.00,      27.98,       0.00)  GC   1
          2ND HIGHEST VALUE IS     165.28276 AT (  564610.00,  4187431.00,      27.01,       0.00)  GC   1
          3RD HIGHEST VALUE IS      76.66923 AT (  564510.00,  4187531.00,      27.01,       0.00)  GC   1
          4TH HIGHEST VALUE IS      72.38454 AT (  564610.00,  4187631.00,      28.99,       0.00)  GC   1
          5TH HIGHEST VALUE IS      67.07074 AT (  564710.00,  4187531.00,      28.99,       0.00)  GC   1
          6TH HIGHEST VALUE IS      65.45158 AT (  564710.00,  4187431.00,      27.98,       0.00)  GC   1
          7TH HIGHEST VALUE IS      53.13598 AT (  564510.00,  4187631.00,      27.98,       0.00)  GC   1
          8TH HIGHEST VALUE IS      42.92421 AT (  564610.00,  4187331.00,      26.00,       0.00)  GC   1
          9TH HIGHEST VALUE IS      37.96082 AT (  564510.00,  4187431.00,      26.00,       0.00)  GC   1
         10TH HIGHEST VALUE IS      37.05026 AT (  564710.00,  4187631.00,      29.99,       0.00)  GC   1

24_06     1ST HIGHEST VALUE IS     162.33658 AT (  564610.00,  4187331.00,      26.00,       0.00)  GC   1
          2ND HIGHEST VALUE IS     118.65551 AT (  564510.00,  4187331.00,      24.99,       0.00)  GC   1
          3RD HIGHEST VALUE IS     105.62300 AT (  564610.00,  4187431.00,      27.01,       0.00)  GC   1
          4TH HIGHEST VALUE IS      99.21195 AT (  564510.00,  4187431.00,      26.00,       0.00)  GC   1
          5TH HIGHEST VALUE IS      71.98840 AT (  564610.00,  4187231.00,      24.99,       0.00)  GC   1
          6TH HIGHEST VALUE IS      58.25547 AT (  564710.00,  4187331.00,      27.01,       0.00)  GC   1
          7TH HIGHEST VALUE IS      43.42052 AT (  564710.00,  4187231.00,      26.00,       0.00)  GC   1
          8TH HIGHEST VALUE IS      42.80551 AT (  564710.00,  4187431.00,      27.98,       0.00)  GC   1
          9TH HIGHEST VALUE IS      40.28487 AT (  564610.00,  4187531.00,      27.98,       0.00)  GC   1
         10TH HIGHEST VALUE IS      39.51272 AT (  564510.00,  4187231.00,      23.99,       0.00)  GC   1
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**MODELOPTs:
CONC                         RURAL  ELEV          DFAULT

                         *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                         ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

                                                                                            NETWORK
GROUP ID                     AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

24_07     1ST HIGHEST VALUE IS      279.34430 AT (  564510.00,  4187131.00,      22.98,      0.00)  GC   1
          2ND HIGHEST VALUE IS      258.27756 AT (  564510.00,  4187231.00,      23.99,      0.00)  GC   1
          3RD HIGHEST VALUE IS      113.82898 AT (  564610.00,  4187231.00,      24.99,      0.00)  GC   1
          4TH HIGHEST VALUE IS       95.06381 AT (  564610.00,  4187131.00,      23.99,      0.00)  GC   1
          5TH HIGHEST VALUE IS       70.00259 AT (  564510.00,  4187331.00,      24.99,      0.00)  GC   1
          6TH HIGHEST VALUE IS       50.88216 AT (  564610.00,  4187331.00,      26.00,      0.00)  GC   1
          7TH HIGHEST VALUE IS       43.63442 AT (  564710.00,  4187131.00,      24.99,      0.00)  GC   1
          8TH HIGHEST VALUE IS       43.36366 AT (  564710.00,  4187231.00,      26.00,      0.00)  GC   1
          9TH HIGHEST VALUE IS       40.36356 AT (  564610.00,  4187031.00,      22.98,      0.00)  GC   1
         10TH HIGHEST VALUE IS       39.43031 AT (  564410.00,  4187231.00,      22.98,      0.00)  GC   1

24_08     1ST HIGHEST VALUE IS      305.04153 AT (  564510.00,  4187031.00,      22.01,      0.00)  GC   1
          2ND HIGHEST VALUE IS      245.77670 AT (  564510.00,  4187131.00,      22.98,      0.00)  GC   1
          3RD HIGHEST VALUE IS       88.22759 AT (  564610.00,  4187031.00,      22.98,      0.00)  GC   1
          4TH HIGHEST VALUE IS       67.04753 AT (  564510.00,  4186931.00,      21.00,      0.00)  GC   1
          5TH HIGHEST VALUE IS       63.54996 AT (  564610.00,  4187131.00,      23.99,      0.00)  GC   1
          6TH HIGHEST VALUE IS       57.07876 AT (  564410.00,  4187131.00,      22.01,      0.00)  GC   1
          7TH HIGHEST VALUE IS       53.55656 AT (  564610.00,  4186931.00,      22.01,      0.00)  GC   1
          8TH HIGHEST VALUE IS       43.60193 AT (  564410.00,  4187031.00,      21.00,      0.00)  GC   1
          9TH HIGHEST VALUE IS       43.09811 AT (  564510.00,  4187231.00,      23.99,      0.00)  GC   1
         10TH HIGHEST VALUE IS       37.99723 AT (  564710.00,  4187031.00,      23.99,      0.00)  GC   1

24_09     1ST HIGHEST VALUE IS      227.10306 AT (  564510.00,  4186931.00,      21.00,      0.00)  GC   1
          2ND HIGHEST VALUE IS      140.43878 AT (  564510.00,  4186831.00,      19.99,      0.00)  GC   1
          3RD HIGHEST VALUE IS       84.52781 AT (  564410.00,  4186931.00,      19.99,      0.00)  GC   1
          4TH HIGHEST VALUE IS       75.92731 AT (  564510.00,  4187031.00,      22.01,      0.00)  GC   1
          5TH HIGHEST VALUE IS       65.54768 AT (  564610.00,  4186931.00,      22.01,      0.00)  GC   1
          6TH HIGHEST VALUE IS       60.55749 AT (  564610.00,  4186831.00,      21.00,      0.00)  GC   1
          7TH HIGHEST VALUE IS       59.67392 AT (  564410.00,  4187031.00,      21.00,      0.00)  GC   1
          8TH HIGHEST VALUE IS       39.78736 AT (  564510.00,  4186731.00,      18.99,      0.00)  GC   1
          9TH HIGHEST VALUE IS       39.24030 AT (  564410.00,  4186831.00,      19.99,      0.00)  GC   1
         10TH HIGHEST VALUE IS       37.61000 AT (  564610.00,  4187031.00,      22.98,      0.00)  GC   1
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**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3   **

GROUP ID		AVERAGE CONC		RECEPTOR (XR,	YR,	ZELEV,	ZFLAG)	OF TYPE	NETWORK GRID-ID
24_10	1ST HIGHEST VALUE IS	145.25185	AT (	564510.00,	4186731.00,	18.99,	0.00)	GC	1
	2ND HIGHEST VALUE IS	144.27565	AT (	564410.00,	4186731.00,	18.99,	0.00)	GC	1
	3RD HIGHEST VALUE IS	115.69290	AT (	564410.00,	4186831.00,	19.99,	0.00)	GC	1
	4TH HIGHEST VALUE IS	109.47517	AT (	564510.00,	4186831.00,	19.99,	0.00)	GC	1
	5TH HIGHEST VALUE IS	62.71557	AT (	564510.00,	4186631.00,	17.98,	0.00)	GC	1
	6TH HIGHEST VALUE IS	54.65911	AT (	564610.00,	4186731.00,	19.99,	0.00)	GC	1
	7TH HIGHEST VALUE IS	42.58745	AT (	564610.00,	4186831.00,	21.00,	0.00)	GC	1
	8TH HIGHEST VALUE IS	41.30101	AT (	564510.00,	4186931.00,	21.00,	0.00)	GC	1
	9TH HIGHEST VALUE IS	40.80125	AT (	564410.00,	4186931.00,	19.99,	0.00)	GC	1
	10TH HIGHEST VALUE IS	40.44876	AT (	564410.00,	4186631.00,	17.98,	0.00)	GC	1
24_11	1ST HIGHEST VALUE IS	397.69458	AT (	564410.00,	4186631.00,	17.98,	0.00)	GC	1
	2ND HIGHEST VALUE IS	162.33577	AT (	564410.00,	4186531.00,	17.01,	0.00)	GC	1
	3RD HIGHEST VALUE IS	108.10152	AT (	564510.00,	4186631.00,	17.98,	0.00)	GC	1
	4TH HIGHEST VALUE IS	84.13953	AT (	564510.00,	4186531.00,	17.01,	0.00)	GC	1
	5TH HIGHEST VALUE IS	82.73469	AT (	564410.00,	4186731.00,	18.99,	0.00)	GC	1
	6TH HIGHEST VALUE IS	52.66345	AT (	564510.00,	4186731.00,	18.99,	0.00)	GC	1
	7TH HIGHEST VALUE IS	42.77555	AT (	564310.00,	4186731.00,	17.98,	0.00)	GC	1
	8TH HIGHEST VALUE IS	42.11628	AT (	564610.00,	4186631.00,	18.99,	0.00)	GC	1
	9TH HIGHEST VALUE IS	41.94169	AT (	564310.00,	4186631.00,	17.01,	0.00)	GC	1
	10TH HIGHEST VALUE IS	40.65788	AT (	564610.00,	4186531.00,	17.98,	0.00)	GC	1
24_12	1ST HIGHEST VALUE IS	295.21762	AT (	564410.00,	4186531.00,	17.01,	0.00)	GC	1
	2ND HIGHEST VALUE IS	262.78305	AT (	564410.00,	4186431.00,	16.00,	0.00)	GC	1
	3RD HIGHEST VALUE IS	81.86784	AT (	564510.00,	4186431.00,	16.00,	0.00)	GC	1
	4TH HIGHEST VALUE IS	63.61194	AT (	564510.00,	4186531.00,	17.01,	0.00)	GC	1
	5TH HIGHEST VALUE IS	61.95335	AT (	564310.00,	4186531.00,	16.00,	0.00)	GC	1
	6TH HIGHEST VALUE IS	60.84409	AT (	564410.00,	4186331.00,	15.00,	0.00)	GC	1
	7TH HIGHEST VALUE IS	48.53263	AT (	564510.00,	4186331.00,	16.00,	0.00)	GC	1
	8TH HIGHEST VALUE IS	48.34707	AT (	564410.00,	4186631.00,	17.98,	0.00)	GC	1
	9TH HIGHEST VALUE IS	43.95471	AT (	564310.00,	4186431.00,	15.00,	0.00)	GC	1
	10TH HIGHEST VALUE IS	37.54828	AT (	564310.00,	4186631.00,	17.01,	0.00)	GC	1

**MODELOPTs:
CONC   RURAL ELEV   DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3   **

GROUP ID		AVERAGE CONC		RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	NETWORK GRID-ID
24_13	1ST HIGHEST VALUE IS	203.42940	AT (	564410.00,	4186331.00,	15.00,	0.00)	GC	1
	2ND HIGHEST VALUE IS	117.57773	AT (	564410.00,	4186231.00,	15.00,	0.00)	GC	1
	3RD HIGHEST VALUE IS	94.95856	AT (	564310.00,	4186331.00,	13.99,	0.00)	GC	1
	4TH HIGHEST VALUE IS	80.14832	AT (	564410.00,	4186431.00,	16.00,	0.00)	GC	1
	5TH HIGHEST VALUE IS	68.44422	AT (	564310.00,	4186431.00,	15.00,	0.00)	GC	1
	6TH HIGHEST VALUE IS	63.16129	AT (	564510.00,	4186331.00,	16.00,	0.00)	GC	1
	7TH HIGHEST VALUE IS	55.29884	AT (	564510.00,	4186231.00,	16.00,	0.00)	GC	1
	8TH HIGHEST VALUE IS	40.74472	AT (	564310.00,	4186231.00,	13.99,	0.00)	GC	1
	9TH HIGHEST VALUE IS	38.06499	AT (	564510.00,	4186431.00,	16.00,	0.00)	GC	1
	10TH HIGHEST VALUE IS	36.57200	AT (	564410.00,	4186131.00,	13.99,	0.00)	GC	1
24_14	1ST HIGHEST VALUE IS	202.30397	AT (	564310.00,	4186131.00,	12.98,	0.00)	GC	1
	2ND HIGHEST VALUE IS	138.27206	AT (	564310.00,	4186231.00,	13.99,	0.00)	GC	1
	3RD HIGHEST VALUE IS	129.50645	AT (	564410.00,	4186131.00,	13.99,	0.00)	GC	1
	4TH HIGHEST VALUE IS	109.56931	AT (	564410.00,	4186231.00,	15.00,	0.00)	GC	1
	5TH HIGHEST VALUE IS	55.93066	AT (	564410.00,	4186031.00,	12.98,	0.00)	GC	1
	6TH HIGHEST VALUE IS	51.21615	AT (	564510.00,	4186131.00,	16.00,	0.00)	GC	1
	7TH HIGHEST VALUE IS	45.59259	AT (	564310.00,	4186331.00,	13.99,	0.00)	GC	1
	8TH HIGHEST VALUE IS	42.89009	AT (	564410.00,	4186331.00,	15.00,	0.00)	GC	1
	9TH HIGHEST VALUE IS	42.15398	AT (	564510.00,	4186231.00,	16.00,	0.00)	GC	1
	10TH HIGHEST VALUE IS	38.31940	AT (	564310.00,	4186031.00,	12.01,	0.00)	GC	1
TELE_01	1ST HIGHEST VALUE IS	279.16531	AT (	564910.00,	4187831.00,	32.98,	0.00)	GC	1
	2ND HIGHEST VALUE IS	126.47002	AT (	564910.00,	4187931.00,	33.99,	0.00)	GC	1
	3RD HIGHEST VALUE IS	98.13935	AT (	564910.00,	4187731.00,	32.00,	0.00)	GC	1
	4TH HIGHEST VALUE IS	80.62292	AT (	565010.00,	4187831.00,	33.99,	0.00)	GC	1
	5TH HIGHEST VALUE IS	61.00577	AT (	564810.00,	4187931.00,	32.00,	0.00)	GC	1
	6TH HIGHEST VALUE IS	60.70258	AT (	564810.00,	4187831.00,	32.00,	0.00)	GC	1
	7TH HIGHEST VALUE IS	58.21238	AT (	565010.00,	4187731.00,	32.98,	0.00)	GC	1
	8TH HIGHEST VALUE IS	50.03229	AT (	565010.00,	4187931.00,	34.99,	0.00)	GC	1
	9TH HIGHEST VALUE IS	35.73849	AT (	564910.00,	4188031.00,	34.99,	0.00)	GC	1
	10TH HIGHEST VALUE IS	34.75225	AT (	565110.00,	4187831.00,	34.99,	0.00)	GC	1

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CONC                        RURAL  ELEV         DFAULT

                                          *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

                                                                                                   NETWORK
GROUP ID                      AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

TELE_02  1ST HIGHEST VALUE IS     173.14084 AT (  564910.00,  4187731.00,     32.00,      0.00)  GC   1
         2ND HIGHEST VALUE IS     145.89523 AT (  564910.00,  4187631.00,     32.00,      0.00)  GC   1
         3RD HIGHEST VALUE IS     101.44122 AT (  564810.00,  4187731.00,     32.00,      0.00)  GC   1
         4TH HIGHEST VALUE IS      68.94515 AT (  564810.00,  4187631.00,     31.00,      0.00)  GC   1
         5TH HIGHEST VALUE IS      57.30672 AT (  565010.00,  4187631.00,     32.00,      0.00)  GC   1
         6TH HIGHEST VALUE IS      55.71991 AT (  564910.00,  4187831.00,     32.98,      0.00)  GC   1
         7TH HIGHEST VALUE IS      53.46691 AT (  565010.00,  4187731.00,     32.98,      0.00)  GC   1
         8TH HIGHEST VALUE IS      50.79164 AT (  564810.00,  4187831.00,     32.00,      0.00)  GC   1
         9TH HIGHEST VALUE IS      47.84150 AT (  564910.00,  4187531.00,     31.00,      0.00)  GC   1
        10TH HIGHEST VALUE IS      35.38011 AT (  565010.00,  4187531.00,     31.00,      0.00)  GC   1

TELE_03  1ST HIGHEST VALUE IS     293.98926 AT (  564810.00,  4187531.00,     29.99,      0.00)  GC   1
         2ND HIGHEST VALUE IS     124.83192 AT (  564910.00,  4187531.00,     31.00,      0.00)  GC   1
         3RD HIGHEST VALUE IS     121.84479 AT (  564810.00,  4187631.00,     31.00,      0.00)  GC   1
         4TH HIGHEST VALUE IS      74.82460 AT (  564910.00,  4187631.00,     32.00,      0.00)  GC   1
         5TH HIGHEST VALUE IS      71.93352 AT (  564910.00,  4187431.00,     29.99,      0.00)  GC   1
         6TH HIGHEST VALUE IS      59.52245 AT (  564810.00,  4187431.00,     28.99,      0.00)  GC   1
         7TH HIGHEST VALUE IS      47.42420 AT (  565010.00,  4187531.00,     31.00,      0.00)  GC   1
         8TH HIGHEST VALUE IS      40.46568 AT (  564710.00,  4187631.00,     29.99,      0.00)  GC   1
         9TH HIGHEST VALUE IS      39.38552 AT (  565010.00,  4187431.00,     29.99,      0.00)  GC   1
        10TH HIGHEST VALUE IS      35.69582 AT (  564810.00,  4187731.00,     32.00,      0.00)  GC   1

TELE_04  1ST HIGHEST VALUE IS     421.66254 AT (  564810.00,  4187431.00,     28.99,      0.00)  GC   1
         2ND HIGHEST VALUE IS     222.15509 AT (  564810.00,  4187331.00,     27.98,      0.00)  GC   1
         3RD HIGHEST VALUE IS      81.38507 AT (  564910.00,  4187431.00,     29.99,      0.00)  GC   1
         4TH HIGHEST VALUE IS      79.34090 AT (  564910.00,  4187331.00,     27.98,      0.00)  GC   1
         5TH HIGHEST VALUE IS      65.68044 AT (  564810.00,  4187531.00,     29.99,      0.00)  GC   1
         6TH HIGHEST VALUE IS      55.42559 AT (  564710.00,  4187431.00,     27.98,      0.00)  GC   1
         7TH HIGHEST VALUE IS      44.95757 AT (  564710.00,  4187531.00,     28.99,      0.00)  GC   1
         8TH HIGHEST VALUE IS      40.84986 AT (  564910.00,  4187531.00,     31.00,      0.00)  GC   1
         9TH HIGHEST VALUE IS      39.81369 AT (  564910.00,  4187231.00,     27.01,      0.00)  GC   1
        10TH HIGHEST VALUE IS      39.07991 AT (  564810.00,  4187231.00,     26.82,      0.00)  GC   1
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**MODELOPTs:
CONC                         RURAL  ELEV         DFAULT

                                        *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                                     ** CONC OF OTHER    IN MICROGRAMS/M**3                            **

                                                                                                 NETWORK
GROUP ID                        AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

TELE_05  1ST HIGHEST VALUE IS     204.87120 AT (  564810.00,  4187231.00,     26.82,      0.00)  GC   1
         2ND HIGHEST VALUE IS     122.35245 AT (  564810.00,  4187331.00,     27.98,      0.00)  GC   1
         3RD HIGHEST VALUE IS      80.04374 AT (  564710.00,  4187231.00,     26.00,      0.00)  GC   1
         4TH HIGHEST VALUE IS      79.27245 AT (  564810.00,  4187131.00,     26.00,      0.00)  GC   1
         5TH HIGHEST VALUE IS      77.45415 AT (  564710.00,  4187331.00,     27.01,      0.00)  GC   1
         6TH HIGHEST VALUE IS      67.80863 AT (  564910.00,  4187231.00,     27.01,      0.00)  GC   1
         7TH HIGHEST VALUE IS      48.46789 AT (  564910.00,  4187131.00,     26.00,      0.00)  GC   1
         8TH HIGHEST VALUE IS      47.37551 AT (  564910.00,  4187331.00,     27.98,      0.00)  GC   1
         9TH HIGHEST VALUE IS      42.94141 AT (  564810.00,  4187431.00,     28.99,      0.00)  GC   1
        10TH HIGHEST VALUE IS      34.03581 AT (  564710.00,  4187431.00,     27.98,      0.00)  GC   1

TELE_06  1ST HIGHEST VALUE IS     147.04933 AT (  564710.00,  4187031.00,     23.99,      0.00)  GC   1
         2ND HIGHEST VALUE IS     146.52284 AT (  564710.00,  4187131.00,     24.99,      0.00)  GC   1
         3RD HIGHEST VALUE IS     138.51376 AT (  564810.00,  4187131.00,     26.00,      0.00)  GC   1
         4TH HIGHEST VALUE IS     111.13900 AT (  564810.00,  4187031.00,     24.72,      0.00)  GC   1
         5TH HIGHEST VALUE IS      62.69349 AT (  564710.00,  4187231.00,     26.00,      0.00)  GC   1
         6TH HIGHEST VALUE IS      55.70518 AT (  564810.00,  4187231.00,     26.82,      0.00)  GC   1
         7TH HIGHEST VALUE IS      48.53374 AT (  564910.00,  4187031.00,     24.99,      0.00)  GC   1
         8TH HIGHEST VALUE IS      48.51411 AT (  564910.00,  4187131.00,     26.00,      0.00)  GC   1
         9TH HIGHEST VALUE IS      41.74343 AT (  564810.00,  4186931.00,     22.98,      0.00)  GC   1
        10TH HIGHEST VALUE IS      33.81176 AT (  564610.00,  4187231.00,     24.99,      0.00)  GC   1

TELE_07  1ST HIGHEST VALUE IS     399.05481 AT (  564710.00,  4186931.00,     22.98,      0.00)  GC   1
         2ND HIGHEST VALUE IS     211.27525 AT (  564710.00,  4187031.00,     23.99,      0.00)  GC   1
         3RD HIGHEST VALUE IS     100.54922 AT (  564810.00,  4186931.00,     22.98,      0.00)  GC   1
         4TH HIGHEST VALUE IS      70.25115 AT (  564810.00,  4187031.00,     24.72,      0.00)  GC   1
         5TH HIGHEST VALUE IS      62.58874 AT (  564710.00,  4186831.00,     21.82,      0.00)  GC   1
         6TH HIGHEST VALUE IS      58.43611 AT (  564810.00,  4186831.00,     22.01,      0.00)  GC   1
         7TH HIGHEST VALUE IS      48.82084 AT (  564610.00,  4187031.00,     22.98,      0.00)  GC   1
         8TH HIGHEST VALUE IS      41.90595 AT (  564710.00,  4187131.00,     24.99,      0.00)  GC   1
         9TH HIGHEST VALUE IS      41.48196 AT (  564910.00,  4186931.00,     23.84,      0.00)  GC   1
        10TH HIGHEST VALUE IS      36.31536 AT (  564610.00,  4186931.00,     22.01,      0.00)  GC   1
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**MODELOPTs:
CONC                           RURAL  ELEV         DFAULT

                                      *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                                  ** CONC OF OTHER    IN MICROGRAMS/M**3                        **

                                                                                                      NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

TELE_08  1ST HIGHEST VALUE IS     268.50018 AT (  564710.00,  4186831.00,     21.82,      0.00)  GC   1
         2ND HIGHEST VALUE IS     154.84344 AT (  564710.00,  4186731.00,     19.99,      0.00)  GC   1
         3RD HIGHEST VALUE IS      80.34364 AT (  564710.00,  4186931.00,     22.98,      0.00)  GC   1
         4TH HIGHEST VALUE IS      71.83712 AT (  564610.00,  4186831.00,     21.00,      0.00)  GC   1
         5TH HIGHEST VALUE IS      71.12026 AT (  564810.00,  4186831.00,     22.01,      0.00)  GC   1
         6TH HIGHEST VALUE IS      65.26136 AT (  564810.00,  4186731.00,     21.00,      0.00)  GC   1
         7TH HIGHEST VALUE IS      54.87310 AT (  564610.00,  4186931.00,     22.01,      0.00)  GC   1
         8TH HIGHEST VALUE IS      39.42240 AT (  564810.00,  4186931.00,     22.98,      0.00)  GC   1
         9TH HIGHEST VALUE IS      38.99093 AT (  564710.00,  4186631.00,     18.99,      0.00)  GC   1
        10TH HIGHEST VALUE IS      34.19469 AT (  564610.00,  4186731.00,     19.99,      0.00)  GC   1

TELE_09  1ST HIGHEST VALUE IS     157.48927 AT (  564710.00,  4186631.00,     18.99,      0.00)  GC   1
         2ND HIGHEST VALUE IS     117.72850 AT (  564610.00,  4186631.00,     18.99,      0.00)  GC   1
         3RD HIGHEST VALUE IS     114.92555 AT (  564710.00,  4186731.00,     19.99,      0.00)  GC   1
         4TH HIGHEST VALUE IS     100.71965 AT (  564610.00,  4186731.00,     19.99,      0.00)  GC   1
         5TH HIGHEST VALUE IS      65.42223 AT (  564710.00,  4186531.00,     17.98,      0.00)  GC   1
         6TH HIGHEST VALUE IS      57.59246 AT (  564810.00,  4186631.00,     19.99,      0.00)  GC   1
         7TH HIGHEST VALUE IS      43.97939 AT (  564810.00,  4186731.00,     21.00,      0.00)  GC   1
         8TH HIGHEST VALUE IS      42.04990 AT (  564710.00,  4186831.00,     21.82,      0.00)  GC   1
         9TH HIGHEST VALUE IS      41.26167 AT (  564810.00,  4186531.00,     18.99,      0.00)  GC   1
        10TH HIGHEST VALUE IS      38.77731 AT (  564610.00,  4186831.00,     21.00,      0.00)  GC   1

TELE_10  1ST HIGHEST VALUE IS     327.87897 AT (  564610.00,  4186531.00,     17.98,      0.00)  GC   1
         2ND HIGHEST VALUE IS     174.28001 AT (  564610.00,  4186431.00,     17.01,      0.00)  GC   1
         3RD HIGHEST VALUE IS     112.15976 AT (  564710.00,  4186531.00,     17.98,      0.00)  GC   1
         4TH HIGHEST VALUE IS      86.94970 AT (  564710.00,  4186431.00,     17.98,      0.00)  GC   1
         5TH HIGHEST VALUE IS      78.00629 AT (  564610.00,  4186631.00,     18.99,      0.00)  GC   1
         6TH HIGHEST VALUE IS      52.82183 AT (  564710.00,  4186631.00,     18.99,      0.00)  GC   1
         7TH HIGHEST VALUE IS      42.94342 AT (  564810.00,  4186531.00,     18.99,      0.00)  GC   1
         8TH HIGHEST VALUE IS      41.53792 AT (  564810.00,  4186431.00,     18.38,      0.00)  GC   1
         9TH HIGHEST VALUE IS      40.73855 AT (  564510.00,  4186631.00,     17.98,      0.00)  GC   1
        10TH HIGHEST VALUE IS      40.02105 AT (  564510.00,  4186531.00,     17.01,      0.00)  GC   1
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CONC                          RURAL  ELEV          DFAULT

                                         *** THE SUMMARY OF MAXIMUM PERIOD (  8784 HRS) RESULTS ***

                                     ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

                                                                                                   NETWORK
GROUP ID                          AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

TELE_11  1ST HIGHEST VALUE IS     303.24164 AT (  564610.00,  4186431.00,     17.01,      0.00)  GC   1
         2ND HIGHEST VALUE IS     262.03745 AT (  564610.00,  4186331.00,     17.01,      0.00)  GC   1
         3RD HIGHEST VALUE IS      82.01468 AT (  564710.00,  4186331.00,     17.98,      0.00)  GC   1
         4TH HIGHEST VALUE IS      63.42854 AT (  564710.00,  4186431.00,     17.98,      0.00)  GC   1
         5TH HIGHEST VALUE IS      61.00242 AT (  564610.00,  4186231.00,     17.01,      0.00)  GC   1
         6TH HIGHEST VALUE IS      60.80955 AT (  564510.00,  4186431.00,     16.00,      0.00)  GC   1
         7TH HIGHEST VALUE IS      48.64905 AT (  564710.00,  4186231.00,     18.65,      0.00)  GC   1
         8TH HIGHEST VALUE IS      46.95020 AT (  564610.00,  4186531.00,     17.98,      0.00)  GC   1
         9TH HIGHEST VALUE IS      44.16333 AT (  564510.00,  4186331.00,     16.00,      0.00)  GC   1
        10TH HIGHEST VALUE IS      36.74770 AT (  564510.00,  4186531.00,     17.01,      0.00)  GC   1

TELE_12  1ST HIGHEST VALUE IS     196.07671 AT (  564610.00,  4186231.00,     17.01,      0.00)  GC   1
         2ND HIGHEST VALUE IS     115.15229 AT (  564610.00,  4186131.00,     17.10,      0.00)  GC   1
         3RD HIGHEST VALUE IS      98.73159 AT (  564510.00,  4186231.00,     16.00,      0.00)  GC   1
         4TH HIGHEST VALUE IS      77.61198 AT (  564610.00,  4186331.00,     17.01,      0.00)  GC   1
         5TH HIGHEST VALUE IS      67.66782 AT (  564510.00,  4186331.00,     16.00,      0.00)  GC   1
         6TH HIGHEST VALUE IS      61.44713 AT (  564710.00,  4186231.00,     18.65,      0.00)  GC   1
         7TH HIGHEST VALUE IS      54.15062 AT (  564710.00,  4186131.00,     24.38,      0.00)  GC   1
         8TH HIGHEST VALUE IS      42.94033 AT (  564510.00,  4186131.00,     16.00,      0.00)  GC   1
         9TH HIGHEST VALUE IS      37.01379 AT (  564710.00,  4186331.00,     17.98,      0.00)  GC   1
        10TH HIGHEST VALUE IS      36.66839 AT (  564610.00,  4186031.00,     21.40,      0.00)  GC   1

TELE_13  1ST HIGHEST VALUE IS     282.11636 AT (  564510.00,  4186031.00,     16.00,      0.00)  GC   1
         2ND HIGHEST VALUE IS     147.30222 AT (  564510.00,  4186131.00,     16.00,      0.00)  GC   1
         3RD HIGHEST VALUE IS     122.34039 AT (  564610.00,  4186031.00,     21.40,      0.00)  GC   1
         4TH HIGHEST VALUE IS     103.65099 AT (  564610.00,  4186131.00,     17.10,      0.00)  GC   1
         5TH HIGHEST VALUE IS      54.77659 AT (  564610.00,  4185931.00,     19.29,      0.00)  GC   1
         6TH HIGHEST VALUE IS      49.22272 AT (  564710.00,  4186031.00,     23.99,      0.00)  GC   1
         7TH HIGHEST VALUE IS      45.82764 AT (  564510.00,  4186231.00,     16.00,      0.00)  GC   1
         8TH HIGHEST VALUE IS      41.74918 AT (  564610.00,  4186231.00,     17.01,      0.00)  GC   1
         9TH HIGHEST VALUE IS      40.72492 AT (  564710.00,  4186131.00,     24.38,      0.00)  GC   1
        10TH HIGHEST VALUE IS      37.95613 AT (  564410.00,  4186131.00,     13.99,      0.00)  GC   1

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
                      BD = BOUNDARY
```

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                                         *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***

                                   ** CONC OF OTHER    IN MICROGRAMS/M**3                             **

                                                        DATE                                                                NETWORK
GROUP ID                                 AVERAGE CONC    (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

580_01      HIGH  1ST HIGH VALUE IS    6072.43652  ON 00090703: AT (  563810.00,  4186731.00,     12.01,       0.00)  GC    1
580_02      HIGH  1ST HIGH VALUE IS    5824.10547  ON 00022404: AT (  563910.00,  4186731.00,     13.38,       0.00)  GC    1
580_03      HIGH  1ST HIGH VALUE IS    4887.62842  ON 00011702: AT (  564210.00,  4186631.00,     16.00,       0.00)  GC    1
580_04      HIGH  1ST HIGH VALUE IS    6453.71191  ON 00101023: AT (  564210.00,  4186631.00,     16.00,       0.00)  GC    1
580_05      HIGH  1ST HIGH VALUE IS    5621.83740  ON 00010402: AT (  564510.00,  4186531.00,     17.01,       0.00)  GC    1
580_06      HIGH  1ST HIGH VALUE IS    6542.19531  ON 00011204: AT (  564510.00,  4186531.00,     17.01,       0.00)  GC    1
580_07      HIGH  1ST HIGH VALUE IS    5883.26904  ON 00010623: AT (  564910.00,  4186431.00,     22.98,       0.00)  GC    1
580_08      HIGH  1ST HIGH VALUE IS    4317.98340  ON 00060104: AT (  564810.00,  4186431.00,     18.38,       0.00)  GC    1
580_09      HIGH  1ST HIGH VALUE IS    6070.04004  ON 00033007: AT (  564910.00,  4186431.00,     22.98,       0.00)  GC    1
24_01       HIGH  1ST HIGH VALUE IS    5850.21826  ON 00012804: AT (  564710.00,  4188231.00,     32.98,       0.00)  GC    1
24_02       HIGH  1ST HIGH VALUE IS    5453.65967  ON 00032204: AT (  564610.00,  4187831.00,     29.14,       0.00)  GC    1
24_03       HIGH  1ST HIGH VALUE IS    6473.60400  ON 00093023: AT (  564610.00,  4187731.00,     28.99,       0.00)  GC    1
24_04       HIGH  1ST HIGH VALUE IS    6800.12012  ON 00042522: AT (  564610.00,  4187731.00,     28.99,       0.00)  GC    1
24_05       HIGH  1ST HIGH VALUE IS    5738.97900  ON 00050621: AT (  564610.00,  4187631.00,     28.99,       0.00)  GC    1
24_06       HIGH  1ST HIGH VALUE IS    6217.32422  ON 00093003: AT (  564510.00,  4187231.00,     23.99,       0.00)  GC    1
24_07       HIGH  1ST HIGH VALUE IS    6739.51660  ON 00101022: AT (  564510.00,  4187131.00,     22.98,       0.00)  GC    1
24_08       HIGH  1ST HIGH VALUE IS    6881.62939  ON 00011222: AT (  564510.00,  4187131.00,     22.98,       0.00)  GC    1
24_09       HIGH  1ST HIGH VALUE IS    4833.35303  ON 00101705: AT (  564410.00,  4186731.00,     18.99,       0.00)  GC    1
24_10       HIGH  1ST HIGH VALUE IS    6321.15625  ON 00093023: AT (  564410.00,  4186631.00,     17.98,       0.00)  GC    1
24_11       HIGH  1ST HIGH VALUE IS    5526.35547  ON 00122907: AT (  564410.00,  4186531.00,     17.01,       0.00)  GC    1
```

**MODELOPTs:
CONC RURAL ELEV DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID			AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR,	YR,	ZELEV,	ZFLAG)	OF TYPE	NETWORK GRID-ID
24_12	HIGH	1ST HIGH VALUE IS	5292.57568	ON 00032507: AT (	564410.00,	4186631.00,	17.98,	0.00)	GC	1
24_13	HIGH	1ST HIGH VALUE IS	5121.15430	ON 00093003: AT (	564310.00,	4186131.00,	12.98,	0.00)	GC	1
24_14	HIGH	1ST HIGH VALUE IS	6187.89502	ON 00101022: AT (	564310.00,	4186031.00,	12.01,	0.00)	GC	1
TELE_01	HIGH	1ST HIGH VALUE IS	7255.31445	ON 00050621: AT (	564910.00,	4187931.00,	33.99,	0.00)	GC	1
TELE_02	HIGH	1ST HIGH VALUE IS	6390.01318	ON 00093003: AT (	564810.00,	4187531.00,	29.99,	0.00)	GC	1
TELE_03	HIGH	1ST HIGH VALUE IS	6595.10791	ON 00041806: AT (	564810.00,	4187431.00,	28.99,	0.00)	GC	1
TELE_04	HIGH	1ST HIGH VALUE IS	6077.93994	ON 00032507: AT (	564810.00,	4187531.00,	29.99,	0.00)	GC	1
TELE_05	HIGH	1ST HIGH VALUE IS	5574.31641	ON 00011222: AT (	564810.00,	4187431.00,	28.99,	0.00)	GC	1
TELE_06	HIGH	1ST HIGH VALUE IS	7737.37158	ON 00093003: AT (	564710.00,	4187031.00,	23.99,	0.00)	GC	1
TELE_07	HIGH	1ST HIGH VALUE IS	7424.39893	ON 00020908: AT (	564710.00,	4187031.00,	23.99,	0.00)	GC	1
TELE_08	HIGH	1ST HIGH VALUE IS	6761.79248	ON 00050621: AT (	564710.00,	4186931.00,	22.98,	0.00)	GC	1
TELE_09	HIGH	1ST HIGH VALUE IS	7150.08887	ON 00093003: AT (	564610.00,	4186531.00,	17.98,	0.00)	GC	1
TELE_10	HIGH	1ST HIGH VALUE IS	6312.55176	ON 00122423: AT (	564610.00,	4186431.00,	17.01,	0.00)	GC	1
TELE_11	HIGH	1ST HIGH VALUE IS	6134.87305	ON 00123001: AT (	564610.00,	4186431.00,	17.01,	0.00)	GC	1
TELE_12	HIGH	1ST HIGH VALUE IS	5603.54297	ON 00093003: AT (	564510.00,	4186031.00,	16.00,	0.00)	GC	1
TELE_13	HIGH	1ST HIGH VALUE IS	6397.34766	ON 00093003: AT (	564510.00,	4186031.00,	16.00,	0.00)	GC	1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

```
**MODELOPTs:
CONC                           RURAL  ELEV          DFAULT


*** Message Summary : ISCST3 Model Execution ***

 --------- Summary of Total Messages --------

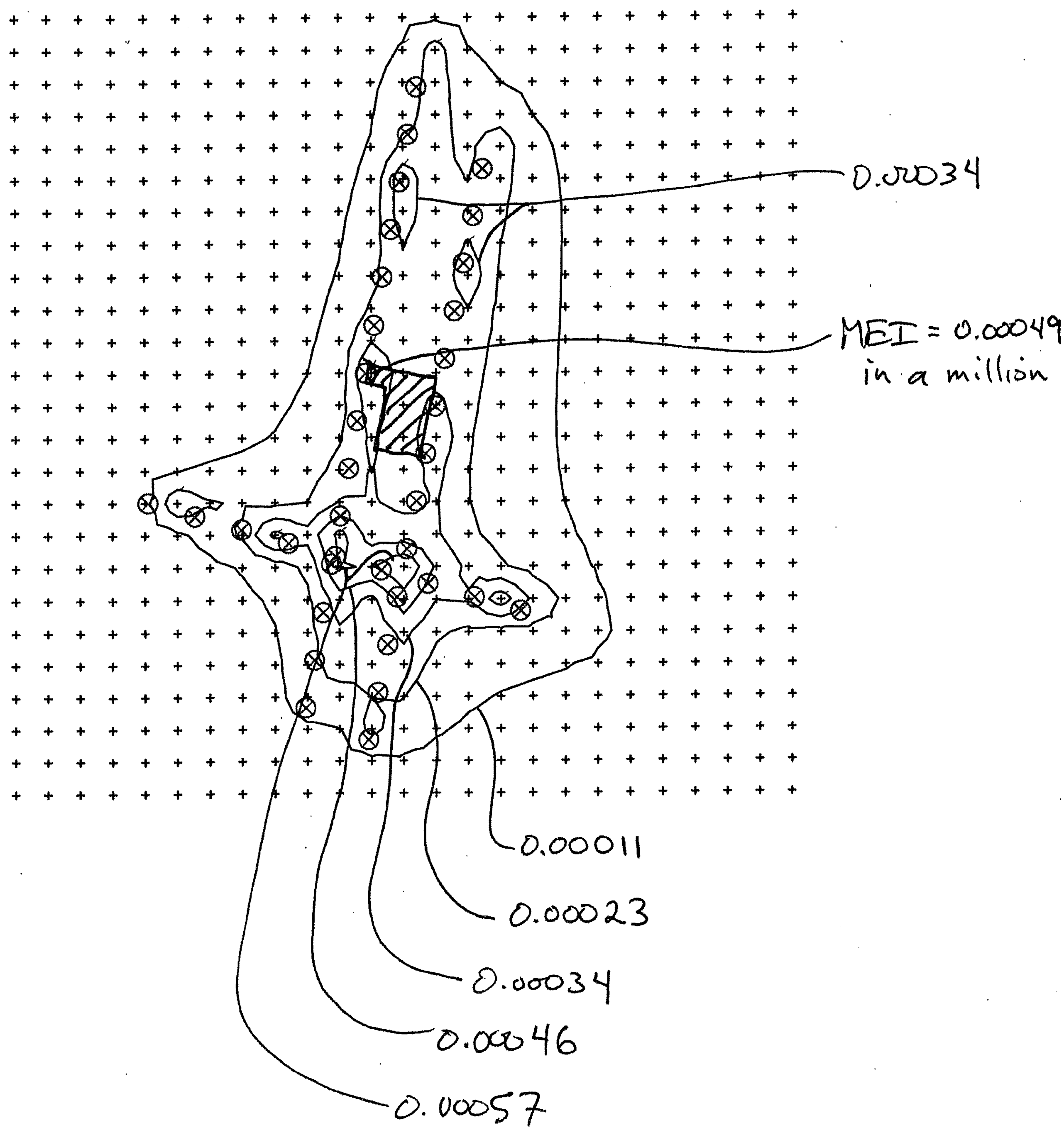
A Total of            0 Fatal Error Message(s)
A Total of            1 Warning Message(s)
A Total of            4 Informational Message(s)

A Total of            4 Calm Hours Identified


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W360   480 SET_WI:2-Digit Year Specified: Valid for Range 1950-2049  SURFDATA

   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
```



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0.00057

APPENDIX B - 2

AIR QUALITY
URBEMIS Modeling

9/17/2007 1:45:18 PM

Urbemis 2007 Version 9.2.0

Combined Winter Emissions Reports (Pounds/Day)

File Name: P:\RDG0702 MacArthur BART\BACKGROUND\Air, Noise & Traffic\AQ\McBART.urb9

Project Name: MacArthur Transit Village Project

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

9/17/2007 1:45:18 PM

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust
2007 TOTALS (lbs/day unmitigated)	8.25	54.95	30.79	0.01	64.03	3.46	67.49	13.38
2008 TOTALS (lbs/day unmitigated)	848.58	97.32	127.45	0.10	64.43	5.64	70.07	13.52

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	38.49	9.29	4.15	0.02	0.31	0.31	11,831.74
TOTALS (lbs/day, mitigated)	38.49	9.29	4.15	0.02	0.31	0.31	11,831.74
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	25.04	39.53	294.12	0.28	58.32	11.09	28,404.92
TOTALS (lbs/day, mitigated)	25.04	39.53	294.12	0.28	58.32	11.09	28,404.92
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	63.53	48.82	298.27	0.30	58.63	11.40	40,236.66
TOTALS (lbs/day, mitigated)	76.98	18.58	8.30	0.04	0.62	0.62	23,663.48
Percent Reduction	-21.17	61.94	97.22	86.67	98.94	94.56	41.19

9/17/2007 1:45:18 PM

PM2.5 Exhaust	PM2.5	CO_2
3.18	16.56	4,445.40
5.17	18.69	15,118.36

9/17/2007 1:45:18 PM

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.43	5.56	2.56	0.00	0.01	0.01	7,067.03
Hearth	0.22	3.73	1.59	0.02	0.30	0.30	4,764.71
Landscaping - No Winter Emissions							
Consumer Products	33.02						
Architectural Coatings	4.82						
TOTALS (lbs/day, unmitigated)	38.49	9.29	4.15	0.02	0.31	0.31	11,831.74

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

Percentage of residences with natural gas fireplaces changed from 55% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse high rise	12.74	20.11	151.26	0.15	29.74	5.66	14,565.24
Day-care center	2.18	3.45	25.37	0.02	5.07	0.96	2,458.43
Strip mall	10.12	15.97	117.49	0.11	23.51	4.47	11,381.25
TOTALS (lbs/day, unmitigated)	25.04	39.53	294.12	0.28	58.32	11.09	28,404.92

9/17/2007 1:45:18 PM

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2014 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse high rise	10.55	3.00	dwelling units	675.00	2,025.00	17,313.14
Day-care center		79.26	1000 sq ft	5.00	396.30	2,955.41
Strip mall		42.09	1000 sq ft	44.00	1,851.96	13,691.54
					4,273.26	33,960.09

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.8	0.4	99.4	0.2
Light Truck < 3750 lbs	12.7	0.8	96.8	2.4
Light Truck 3751-5750 lbs	19.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Motorcycle	3.2	50.0	50.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Day-care center				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0

APPENDIX B - 3

AIR QUALITY
CA LINE SOURCE DISPERSION MODEL

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: Existing-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	13. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	10.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	465	6.9	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	475	5.0	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	17	9.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	277	6.9	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	325	5.0	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	43	9.7	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	47	8.8	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	136	5.5	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	26	9.7	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	122	8.8	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	109	5.5	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	48	9.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	482	4.8	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	475	4.8	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	320	4.8	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	325	4.8	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	73	4.8	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	136	4.8	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	170	4.8	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	109	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: Existing-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: Existing-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SE	353.	.8	.0	.3	.0	.1	.0	.0	.0	.0
2. NW	173.	.7	.2	.0	.0	.0	.2	.0	.0	.0
3. SW	6.	.7	.0	.1	.0	.3	.0	.0	.0	.0
4. NE	186.	.9	.4	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	277.	.5	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdblk	95.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	85.	.4	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	263.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	354.	.8	.4	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.7	.0	.1	.0	.3	.0	.0	.0	.0
11. SW mdblk	7.	.7	.2	.0	.0	.0	.2	.0	.0	.0
12. NE mdblk	186.	.7	.0	.3	.0	.1	.0	.0	.0	.0
13. ES blk	275.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	94.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	86.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.6	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.6	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.6	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.6	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: Existing-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.4	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: Existing-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
   U=    .5 M/S            Z0= 100. CM          ALT=    13. (M)
 BRG= WORST CASE           VD=    .0 CM/S
CLAS=     7 (G)            VS=    .0 CM/S
MIXH= 1000. M             AMB=    .0 PPM
SIGTH=   10. DEGREES     TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	4	-150	4	0	AG	1055	7.2	.0	11.8
B. Telegrap NBD	4	0	4	150	AG	1085	5.0	.0	10.0
C. Telegrap NBL	2	-150	0	0	AG	24	9.7	.0	10.0
D. Telegrap SBA	-4	150	-4	0	AG	940	7.2	.0	11.8
E. Telegrap SBD	-4	0	-4	-150	AG	929	5.0	.0	10.0
F. Telegrap SBL	-2	150	0	0	AG	18	9.7	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	88	8.8	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	104	5.5	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	46	9.7	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	62	8.8	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	132	5.5	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	17	9.7	.0	10.0
M. Telegra NBAX	4	-750	4	-150	AG	1079	4.8	.0	11.8
N. Telegra NBDX	4	150	4	750	AG	1085	4.8	.0	10.0
O. Telegra SBAX	-4	750	-4	150	AG	958	4.8	.0	11.8
P. Telegra SBDX	-4	-150	-4	-750	AG	929	4.8	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	134	4.8	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	104	4.8	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	79	4.8	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	132	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: Existing-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X (M)	Y (M)	Z (M)
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: Existing-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	188.	1.5	1.0	.0	.0	.0	.3	.0	.0	.0
2. NW	172.	1.4	.5	.0	.0	.0	.5	.0	.0	.0
3. SW	7.	1.7	.0	.3	.0	.9	.0	.0	.0	.0
4. NE	187.	1.7	1.0	.0	.0	.0	.3	.0	.0	.0
5. ES mdblk	275.	.5	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	96.	.5	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	84.	.5	.0	.0	.0	.0	.0	.0	.1	.0
8. EN mdblk	265.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	1.7	1.0	.0	.0	.1	.2	.0	.0	.0
10. NW mdblk	173.	1.6	.2	.3	.0	.9	.0	.0	.0	.0
11. SW mdblk	7.	1.5	.5	.1	.0	.1	.6	.0	.0	.0
12. NE mdblk	187.	1.6	.1	.7	.0	.4	.0	.0	.0	.0
13. ES blk	274.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.4	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.4	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	1.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: Existing-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.8	.0	.0	.4	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.4	.7	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.4	.0	.0	.7	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.8	.4	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: Existing-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	13. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	10.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	428	6.9	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	430	5.0	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	56	9.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	243	6.9	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	299	5.0	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	82	9.7	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	784	9.9	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	976	8.2	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	51	9.7	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	687	9.9	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	680	6.3	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	54	9.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	484	4.8	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	430	4.8	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	325	4.8	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	299	4.8	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	835	4.8	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	976	4.8	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	741	4.8	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	680	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: Existing-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: Existing-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	278.	1.8	.2	.0	.0	.0	.0	.0	1.0	.1
2. NW	98.	1.8	.0	.0	.0	.1	.0	.0	.0	.3
3. SW	80.	1.8	.1	.0	.0	.0	.0	.0	.1	.9
4. NE	260.	1.4	.0	.1	.0	.0	.0	.0	.3	.0
5. ES mdblk	278.	1.8	.0	.0	.0	.0	.0	.0	.0	1.1
6. WN mdblk	97.	1.4	.0	.0	.0	.0	.0	.0	.2	.2
7. WS mdblk	83.	1.8	.0	.0	.0	.0	.0	.0	1.0	.1
8. EN mdblk	262.	1.7	.0	.0	.0	.0	.0	.0	.2	.3
9. SE mdblk	354.	1.0	.4	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.9	.0	.1	.0	.2	.0	.1	.0	.0
11. SW mdblk	7.	.9	.2	.0	.0	.0	.2	.0	.0	.0
12. NE mdblk	186.	.9	.0	.3	.0	.1	.0	.0	.0	.0
13. ES blk	276.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.7	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.7	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.7	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: Existing-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	.0	.9	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
3. SW	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.1	.5	.0	.0	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.5
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	.0
17. SE blk	.0	.0	.0	.0	.4	.0	.0	.1	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: Existing-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
   U=    .5 M/S          Z0= 100. CM          ALT=    13. (M)
 BRG= WORST CASE         VD=    .0 CM/S
CLAS=     7 (G)          VS=    .0 CM/S
MIXH= 1000. M           AMB=    .0 PPM
SIGTH=   10. DEGREES    TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	0	4.8	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	0	4.8	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	4.8	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	0	4.8	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	148	5.5	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	0	4.8	.0	10.0
G. 40th Str EBA	-150	-5	0	-5	AG	963	7.5	.0	13.5
H. 40th Str EBD	0	-5	150	-5	AG	886	5.1	.0	10.0
I. 40th Str EBL	-150	-2	0	0	AG	0	4.8	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	725	7.2	.0	10.0
K. 40th Str WBD	0	7	-150	7	AG	725	5.0	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	71	9.7	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	4.8	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	0	4.8	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	0	4.8	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	148	4.8	.0	10.0
Q. 40th St EBAX	-750	-5	-150	-5	AG	963	4.8	.0	13.5
R. 40th St EBDX	150	-5	750	-5	AG	886	4.8	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	796	4.8	.0	10.0
T. 40th St WBDX	-150	7	-750	7	AG	725	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: Existing-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	7	-12	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-12	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-12	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: Existing-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	276.	1.5	.0	.0	.0	.0	.0	.0	1.0	.0
2. NW	97.	1.2	.0	.0	.0	.0	.0	.0	.0	.2
3. SW	278.	1.3	.0	.0	.0	.0	.0	.0	.9	.0
4. NE	98.	1.2	.0	.0	.0	.0	.0	.0	.0	.2
5. ES mdblk	277.	1.2	.0	.0	.0	.0	.0	.0	.1	.6
6. WN mdblk	97.	1.1	.0	.0	.0	.0	.0	.0	.3	.1
7. WS mdblk	83.	1.4	.0	.0	.0	.0	.0	.0	.9	.0
8. EN mdblk	263.	1.4	.0	.0	.0	.0	.0	.0	.2	.2
9. SE mdblk	351.	.3	.0	.0	.0	.0	.1	.0	.0	.0
10. NW mdblk	179.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	9.	.3	.0	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	181.	.2	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	276.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	355.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	179.	.1	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	5.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	181.	.1	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: Existing-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	.0	.7	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
3. SW	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1
4. NE	.0	.7	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.3	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.6
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.6	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: Existing-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	13. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	10.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	7	-150	7	0	AG	868	8.2	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	1045	5.5	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	191	9.7	.0	10.0
D. Telegrap SBA	-7	150	-7	0	AG	706	7.9	.0	11.8
E. Telegrap SBD	-7	0	-7	-150	AG	688	5.2	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	103	9.7	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	771	7.9	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	826	5.3	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	159	9.7	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	539	7.7	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	801	5.3	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	23	9.7	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	1059	4.8	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	1045	4.8	.0	10.0
O. Telegra SBAX	-7	750	-7	150	AG	809	4.8	.0	11.8
P. Telegra SBDX	-7	-150	-7	-750	AG	688	4.8	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	930	4.8	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	826	4.8	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	562	4.8	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	801	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: Existing-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	14	-14	1.8
2. NW	-14	14	1.8
3. SW	-14	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-14	150	1.8
11. SW mdblk	-14	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-14	600	1.8
19. SW blk	-14	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: Existing-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	277.	2.0	.4	.0	.0	.0	.1	.0	.7	.1
2. NW	170.	1.8	.3	.0	.1	.2	.4	.0	.2	.0
3. SW	7.	1.9	.0	.2	.0	.7	.0	.0	.4	.0
4. NE	187.	1.9	.8	.1	.2	.0	.1	.0	.0	.2
5. ES mdblk	276.	1.3	.0	.0	.0	.0	.0	.0	.1	.6
6. WN mdblk	98.	1.4	.0	.0	.0	.0	.0	.0	.2	.1
7. WS mdblk	82.	1.6	.0	.0	.0	.0	.0	.0	.8	.0
8. EN mdblk	263.	1.3	.0	.0	.0	.0	.0	.0	.2	.1
9. SE mdblk	352.	1.8	1.0	.0	.2	.1	.1	.0	.0	.0
10. NW mdblk	172.	1.6	.2	.2	.0	.8	.0	.1	.0	.0
11. SW mdblk	7.	1.4	.2	.1	.1	.0	.5	.0	.0	.0
12. NE mdblk	187.	1.6	.1	.8	.0	.2	.0	.0	.0	.0
13. ES blk	276.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.9	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	1.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: Existing-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
					CONC/LINK (PPM)							
1. SE	.1	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	.0	.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0
4. NE	.0	.3	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
5. ES mdblk	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.6
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	.0	.0	.0	.0	.8	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.3	.0	.0	.5	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.8	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: Existing-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S              Z0= 100. CM          ALT=    13. (M)
   BRG= WORST CASE             VD=    .0 CM/S
  CLAS=     7 (G)              VS=    .0 CM/S
  MIXH= 1000. M               AMB=    .0 PPM
 SIGTH=    10. DEGREES        TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	243	8.8	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	479	5.5	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	39	9.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	226	8.8	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	287	5.5	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	77	9.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	616	6.9	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	717	5.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	74	9.7	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	669	6.9	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	513	5.0	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	52	9.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	282	4.8	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	479	4.8	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	303	4.8	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	287	4.8	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	690	4.8	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	717	4.8	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	721	4.8	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	513	4.8	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: Existing-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: Existing-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SE	352.	1.1	.0	.3	.0	.2	.0	.0	.0	.2
2. NW	97.	1.3	.0	.1	.0	.1	.0	.0	.0	.2
3. SW	82.	1.1	.1	.0	.0	.0	.1	.0	.0	.4
4. NE	261.	1.1	.0	.2	.0	.0	.0	.0	.2	.0
5. ES mdblk	277.	1.1	.0	.0	.0	.0	.0	.0	.0	.5
6. WN mdblk	97.	1.0	.0	.0	.0	.0	.0	.0	.2	.0
7. WS mdblk	83.	1.1	.0	.0	.0	.0	.0	.0	.5	.0
8. EN mdblk	263.	1.1	.0	.0	.0	.0	.0	.0	.1	.1
9. SE mdblk	354.	.8	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.8	.0	.2	.0	.3	.0	.0	.0	.0
11. SW mdblk	6.	.8	.1	.0	.0	.0	.2	.0	.0	.0
12. NE mdblk	187.	.9	.0	.4	.0	.1	.0	.0	.0	.0
13. ES blk	276.	.9	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.8	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.8	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.9	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	355.	.5	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.6	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.6	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.7	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: Existing-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.5	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
4. NE	.0	.0	.3	.0	.0	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.3	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: Existing-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S            Z0= 100. CM          ALT=    13. (M)
  BRG= WORST CASE           VD=    .0 CM/S
 CLAS=     7 (G)            VS=    .0 CM/S
 MIXH= 1000. M             AMB=    .0 PPM
SIGTH=   10. DEGREES      TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1 (M)	Y1 (M)	X2 (M)	Y2 (M)	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	0	4.8	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	20	5.5	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	4.8	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	228	9.2	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	0	4.8	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	0	4.8	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	746	7.1	.0	13.5
H. MacArthu EBD	0	-5	150	-5	AG	746	5.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	0	4.8	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	515	6.9	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	723	5.0	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	0	4.8	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	4.8	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	20	4.8	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	228	4.8	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	0	4.8	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	746	4.8	.0	13.5
R. MacArth EBDX	150	-5	750	-5	AG	746	4.8	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	515	4.8	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	723	4.8	.0	13.5

□

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: Existing-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X (M)	Y (M)	Z (M)
1. SE	7	-14	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: Existing-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
						CONC/LINK (PPM)				
1. SE	277.	1.0	.0	.0	.0	.0	.0	.0	.6	.0
2. NW	97.	1.0	.0	.0	.0	.1	.0	.0	.0	.2
3. SW	278.	1.1	.0	.0	.0	.0	.0	.0	.7	.0
4. NE	262.	1.0	.0	.0	.0	.1	.0	.0	.2	.0
5. ES mdblk	277.	1.0	.0	.0	.0	.0	.0	.0	.0	.5
6. WN mdblk	97.	1.0	.0	.0	.0	.0	.0	.0	.2	.0
7. WS mdblk	82.	1.1	.0	.0	.0	.0	.0	.0	.7	.0
8. EN mdblk	263.	.9	.0	.0	.0	.0	.0	.0	.1	.1
9. SE mdblk	358.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	171.	.5	.0	.0	.0	.3	.0	.0	.0	.0
11. SW mdblk	1.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	189.	.5	.0	.0	.0	.3	.0	.0	.0	.0
13. ES blk	276.	.9	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.9	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.9	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.7	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	358.	.1	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	175.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	359.	.1	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	185.	.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: Existing-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	.0	.5	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1
4. NE	.0	.0	.4	.0	.0	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.5
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: Existing-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	7	-150	7	0	AG	807	10.5	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	1038	9.7	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	90	9.7	.0	10.0
D. Telegrap SBA	-9	150	-9	0	AG	615	9.9	.0	13.5
E. Telegrap SBD	-9	0	-9	-150	AG	680	6.3	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	152	9.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	616	6.9	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	816	5.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	138	9.7	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	542	6.9	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	487	5.0	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	61	9.7	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	897	4.8	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	1038	4.8	.0	10.0
O. Telegra SBAX	-9	750	-9	150	AG	767	4.8	.0	13.5
P. Telegra SBDX	-9	-150	-9	-750	AG	680	4.8	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	754	4.8	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	816	4.8	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	603	4.8	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	487	4.8	.0	13.5

(LINK COORDINATES (M): X1, Y1, X2, Y2)

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: Existing-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	14	-14	1.8
2. NW	-17	14	1.8
3. SW	-15	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-17	150	1.8
11. SW mdblk	-15	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-17	600	1.8
19. SW blk	-15	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: Existing-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	351.	2.3	.2	1.1	.0	.2	.0	.1	.0	.2
2. NW	97.	1.7	.0	.3	.0	.4	.0	.0	.0	.2
3. SW	9.	1.9	.0	.4	.0	.7	.1	.1	.3	.0
4. NE	188.	2.1	1.0	.3	.0	.0	.1	.0	.0	.2
5. ES mdblk	277.	1.3	.0	.0	.0	.0	.0	.0	.0	.5
6. WN mdblk	97.	1.1	.0	.0	.0	.0	.0	.0	.2	.1
7. WS mdblk	83.	1.3	.0	.0	.0	.0	.0	.0	.5	.0
8. EN mdblk	263.	1.2	.0	.0	.0	.0	.0	.0	.1	.1
9. SE mdblk	353.	2.0	1.1	.2	.1	.2	.1	.0	.0	.0
10. NW mdblk	171.	1.7	.2	.3	.0	.8	.0	.1	.0	.0
11. SW mdblk	8.	1.5	.3	.2	.0	.0	.6	.0	.0	.0
12. NE mdblk	188.	2.2	.1	1.4	.0	.2	.1	.0	.0	.0
13. ES blk	276.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.9	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	1.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: Existing-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
					CONC/LINK (PPM)							
1. SE	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
4. NE	.0	.2	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.4
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.0
17. SE blk	.0	.0	.0	.0	.7	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.5	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.8	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: ExPP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S            Z0= 100. CM          ALT=    13. (M)
   BRG= WORST CASE           VD=    .0 CM/S
  CLAS=     7 (G)            VS=    .0 CM/S
  MIXH= 1000. M             AMB=    .0 PPM
 SIGTH=    10. DEGREES      TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	486	6.9	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	496	5.0	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	18	9.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	283	6.9	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	332	5.0	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	43	9.7	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	48	8.8	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	136	5.5	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	26	9.7	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	122	8.8	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	110	5.5	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	48	9.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	504	4.8	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	496	4.8	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	326	4.8	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	332	4.8	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	74	4.8	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	136	4.8	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	170	4.8	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	110	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: ExPP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: ExPP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
						CONC/LINK (PPM)				
1. SE	353.	.8	.0	.3	.0	.1	.0	.0	.0	.0
2. NW	173.	.7	.2	.0	.0	.0	.2	.0	.0	.0
3. SW	6.	.7	.0	.1	.0	.3	.0	.0	.0	.0
4. NE	186.	.9	.5	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	277.	.5	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdblk	95.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	85.	.4	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	263.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	354.	.8	.4	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.7	.0	.1	.0	.3	.0	.0	.0	.0
11. SW mdblk	7.	.7	.2	.0	.0	.0	.3	.0	.0	.0
12. NE mdblk	186.	.8	.0	.3	.0	.1	.0	.0	.0	.0
13. ES blk	275.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	94.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	86.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.6	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.6	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.6	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.7	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: ExPP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.4	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: ExPP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	13. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	10.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	4	-150	4	0	AG	1081	7.2	.0	11.8
B. Telegrap NBD	4	0	4	150	AG	1109	5.0	.0	10.0
C. Telegrap NBL	2	-150	0	0	AG	24	9.7	.0	10.0
D. Telegrap SBA	-4	150	-4	0	AG	986	7.2	.0	11.8
E. Telegrap SBD	-4	0	-4	-150	AG	977	5.0	.0	10.0
F. Telegrap SBL	-2	150	0	0	AG	18	9.7	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	88	8.8	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	106	5.5	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	46	9.7	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	62	8.8	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	132	5.5	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	19	9.7	.0	10.0
M. Telegra NBAX	4	-750	4	-150	AG	1105	4.8	.0	11.8
N. Telegra NBDX	4	150	4	750	AG	1109	4.8	.0	10.0
O. Telegra SBAX	-4	750	-4	150	AG	1004	4.8	.0	11.8
P. Telegra SBDX	-4	-150	-4	-750	AG	977	4.8	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	134	4.8	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	106	4.8	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	81	4.8	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	132	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: ExPP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: ExPP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
						CONC/LINK (PPM)				
1. SE	188.	1.6	1.0	.0	.0	.0	.3	.0	.0	.0
2. NW	172.	1.5	.5	.0	.0	.0	.6	.0	.0	.0
3. SW	7.	1.7	.0	.3	.0	.9	.0	.0	.0	.0
4. NE	187.	1.7	1.0	.0	.0	.0	.3	.0	.0	.0
5. ES mdblk	275.	.5	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	96.	.5	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	84.	.6	.0	.0	.0	.0	.0	.0	.1	.0
8. EN mdblk	265.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	1.7	1.0	.0	.0	.2	.3	.0	.0	.0
10. NW mdblk	173.	1.7	.2	.3	.0	.9	.0	.0	.0	.0
11. SW mdblk	7.	1.6	.5	.1	.0	.1	.7	.0	.0	.0
12. NE mdblk	187.	1.6	.1	.7	.0	.4	.1	.0	.0	.0
13. ES blk	274.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.4	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.4	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	1.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: ExPP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.8	.0	.0	.4	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.4	.7	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.5	.0	.0	.7	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.8	.4	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: ExPP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S             Z0= 100. CM          ALT=    13. (M)
   BRG= WORST CASE            VD=    .0 CM/S
  CLAS=     7 (G)             VS=    .0 CM/S
  MIXH= 1000. M              AMB=    .0 PPM
 SIGTH=   10. DEGREES       TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	390	6.9	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	452	5.0	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	53	9.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	257	6.9	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	395	5.0	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	75	9.7	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	821	10.5	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	943	8.2	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	51	9.7	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	747	9.9	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	710	6.3	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	106	9.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	443	4.8	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	452	4.8	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	332	4.8	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	395	4.8	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	872	4.8	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	943	4.8	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	853	4.8	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	710	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: ExPP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: ExPP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
1. SE	278.	1.9	.2	.0	.0	.0	.0	.0	1.1	.1
2. NW	98.	1.9	.0	.1	.0	.1	.0	.0	.0	.3
3. SW	80.	1.9	.1	.0	.0	.0	.1	.0	.1	.9
4. NE	99.	1.6	.0	.0	.0	.0	.0	.0	.0	.3
5. ES mdblk	278.	1.8	.0	.0	.0	.0	.0	.0	.1	1.1
6. WN mdblk	97.	1.5	.0	.0	.0	.0	.0	.0	.3	.2
7. WS mdblk	83.	1.9	.0	.0	.0	.0	.0	.0	1.1	.1
8. EN mdblk	262.	1.9	.0	.0	.0	.0	.0	.0	.2	.2
9. SE mdblk	354.	1.0	.4	.0	.0	.0	.1	.0	.0	.0
10. NW mdblk	173.	.9	.0	.1	.0	.3	.0	.0	.0	.0
11. SW mdblk	7.	1.0	.2	.0	.0	.0	.3	.0	.0	.0
12. NE mdblk	186.	.9	.0	.3	.0	.1	.0	.0	.0	.0
13. ES blk	276.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.7	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.8	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.7	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: ExPP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	.0	.9	.0	.1	.0	.0	.0	.0	.0	.2	.0	.0
3. SW	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
4. NE	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
5. ES mdblk	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	1.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.3	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.5
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.6	.0
17. SE blk	.0	.0	.0	.0	.4	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: ExPP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	46	8.8	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	0	4.8	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	120	9.7	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	0	4.8	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	161	5.5	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	0	4.8	.0	10.0
G. 40th Str EBA	-150	-5	0	-5	AG	949	7.5	.0	13.5
H. 40th Str EBD	0	-5	150	-5	AG	886	5.1	.0	10.0
I. 40th Str EBL	-150	-2	0	0	AG	0	4.8	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	737	7.2	.0	10.0
K. 40th Str WBD	0	7	-150	7	AG	857	5.1	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	52	9.7	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	166	4.8	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	0	4.8	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	0	4.8	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	161	4.8	.0	10.0
Q. 40th St EBAX	-750	-5	-150	-5	AG	949	4.8	.0	13.5
R. 40th St EBDX	150	-5	750	-5	AG	886	4.8	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	789	4.8	.0	10.0
T. 40th St WBDX	-150	7	-750	7	AG	857	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: ExPP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	7	-12	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-12	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-12	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: ExPP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	276.	1.6	.0	.0	.0	.0	.0	.0	1.0	.0
2. NW	97.	1.2	.0	.0	.0	.0	.0	.0	.0	.2
3. SW	278.	1.3	.0	.0	.0	.0	.0	.0	.9	.0
4. NE	98.	1.2	.0	.0	.0	.0	.0	.0	.0	.2
5. ES mdblk	277.	1.2	.0	.0	.0	.0	.0	.0	.1	.6
6. WN mdblk	98.	1.2	.0	.0	.0	.0	.0	.0	.3	.1
7. WS mdblk	82.	1.4	.0	.0	.0	.0	.0	.0	.9	.0
8. EN mdblk	263.	1.4	.0	.0	.0	.0	.0	.0	.2	.2
9. SE mdblk	352.	.7	.0	.0	.3	.0	.1	.0	.0	.0
10. NW mdblk	179.	.3	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	9.	.5	.0	.0	.2	.0	.1	.0	.0	.0
12. NE mdblk	182.	.3	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	276.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	355.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	180.	.1	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	5.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	181.	.1	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: ExPP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.2
2. NW	.0	.7	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
3. SW	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.2
4. NE	.0	.7	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
5. ES mdblk	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.3	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.6
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.6	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: ExPP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S            Z0= 100. CM            ALT=    13. (M)
   BRG= WORST CASE           VD=    .0 CM/S
  CLAS=     7 (G)            VS=    .0 CM/S
  MIXH= 1000. M             AMB=    .0 PPM
 SIGTH=    10. DEGREES      TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	7	-150	7	0	AG	950	8.2	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	1072	5.5	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	186	9.7	.0	10.0
D. Telegrap SBA	-7	150	-7	0	AG	754	7.9	.0	11.8
E. Telegrap SBD	-7	0	-7	-150	AG	753	5.2	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	103	9.7	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	758	7.9	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	844	5.3	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	128	9.7	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	548	7.7	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	794	5.2	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	36	9.7	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	1136	4.8	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	1072	4.8	.0	10.0
O. Telegra SBAX	-7	750	-7	150	AG	857	4.8	.0	11.8
P. Telegra SBDX	-7	-150	-7	-750	AG	753	4.8	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	886	4.8	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	844	4.8	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	584	4.8	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	794	4.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: ExPP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	14	-14	1.8
2. NW	-14	14	1.8
3. SW	-14	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-14	150	1.8
11. SW mdblk	-14	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-14	600	1.8
19. SW blk	-14	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: ExPP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	277.	2.0	.5	.0	.0	.0	.1	.0	.7	.1
2. NW	170.	1.8	.3	.0	.1	.2	.4	.0	.2	.0
3. SW	7.	1.9	.0	.2	.0	.7	.0	.0	.4	.0
4. NE	187.	2.0	.9	.1	.2	.0	.1	.0	.0	.2
5. ES mdblk	277.	1.3	.0	.0	.0	.0	.0	.0	.0	.6
6. WN mdblk	98.	1.4	.0	.0	.0	.0	.0	.0	.2	.1
7. WS mdblk	82.	1.6	.0	.0	.0	.0	.0	.0	.8	.0
8. EN mdblk	263.	1.3	.0	.0	.0	.0	.0	.0	.2	.1
9. SE mdblk	352.	1.9	1.0	.0	.2	.1	.1	.0	.0	.0
10. NW mdblk	172.	1.7	.2	.2	.0	.8	.0	.1	.0	.0
11. SW mdblk	8.	1.5	.3	.1	.1	.0	.6	.0	.0	.0
12. NE mdblk	187.	1.6	.1	.8	.0	.2	.0	.0	.0	.0
13. ES blk	276.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.9	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	1.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: ExPP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.1	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	.0	.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.1	.0	.0	.2	.1	.0	.0	.0	.0	.0
4. NE	.0	.3	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
5. ES mdblk	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.6
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	.0	.0	.0	.0	.8	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.3	.0	.0	.6	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.8	.3	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: ExPP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
  U=    .5 M/S            Z0= 100. CM          ALT=    13. (M)
BRG= WORST CASE           VD=    .0 CM/S
CLAS=     7 (G)           VS=    .0 CM/S
MIXH= 1000. M             AMB=   .0 PPM
SIGTH=   10. DEGREES     TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	253	8.8	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	437	5.5	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	39	9.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	278	8.8	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	294	5.5	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	121	9.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	655	6.9	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	814	5.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	61	9.7	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	617	6.9	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	527	5.0	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	48	9.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	292	4.8	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	437	4.8	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	399	4.8	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	294	4.8	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	716	4.8	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	814	4.8	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	665	4.8	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	527	4.8	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: ExPP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: ExPP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	352.	1.2	.0	.3	.0	.2	.0	.1	.0	.2
2. NW	97.	1.3	.0	.1	.0	.2	.0	.0	.0	.2
3. SW	82.	1.2	.1	.0	.0	.0	.1	.0	.0	.4
4. NE	262.	1.1	.0	.2	.0	.1	.0	.0	.2	.0
5. ES mdblk	277.	1.1	.0	.0	.0	.0	.0	.0	.0	.5
6. WN mdblk	97.	1.0	.0	.0	.0	.0	.0	.0	.2	.1
7. WS mdblk	83.	1.1	.0	.0	.0	.0	.0	.0	.5	.0
8. EN mdblk	263.	1.1	.0	.0	.0	.0	.0	.0	.1	.1
9. SE mdblk	354.	.8	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	172.	.9	.0	.2	.0	.4	.0	.1	.0	.0
11. SW mdblk	6.	.8	.2	.0	.0	.0	.2	.0	.0	.0
12. NE mdblk	187.	.9	.0	.4	.0	.2	.0	.1	.0	.0
13. ES blk	276.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.8	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.9	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.9	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	355.	.5	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.6	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.7	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: ExPP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.5	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
3. SW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
4. NE	.0	.0	.3	.0	.0	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.4
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: ExPP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
      U=    .5 M/S            Z0= 100. CM            ALT=    13. (M)
    BRG= WORST CASE           VD=    .0 CM/S
   CLAS=     7 (G)            VS=    .0 CM/S
   MIXH= 1000. M             AMB=    .0 PPM
  SIGTH=   10. DEGREES       TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	0	4.8	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	57	5.5	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	4.8	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	193	8.8	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	0	4.8	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	128	9.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	763	7.1	.0	13.5
H. MacArthu EBD	0	-5	150	-5	AG	891	5.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	0	4.8	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	532	6.9	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	668	5.0	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	0	4.8	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	4.8	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	57	4.8	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	321	4.8	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	0	4.8	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	763	4.8	.0	13.5
R. MacArth EBDX	150	-5	750	-5	AG	891	4.8	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	532	4.8	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	668	4.8	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: ExPP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	7	-14	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: ExPP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	277.	1.0	.0	.0	.0	.0	.0	.0	.7	.0
2. NW	97.	1.1	.0	.0	.0	.1	.0	.0	.0	.2
3. SW	278.	1.1	.0	.0	.0	.0	.0	.0	.7	.0
4. NE	262.	1.0	.0	.0	.0	.1	.0	.0	.2	.0
5. ES mdblk	277.	1.1	.0	.0	.0	.0	.0	.0	.0	.6
6. WN mdblk	97.	1.0	.0	.0	.0	.0	.0	.0	.2	.1
7. WS mdblk	83.	1.1	.0	.0	.0	.0	.0	.0	.7	.0
8. EN mdblk	263.	1.0	.0	.0	.0	.0	.0	.0	.1	.2
9. SE mdblk	358.	.3	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	172.	.7	.0	.0	.0	.3	.0	.3	.0	.0
11. SW mdblk	1.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	189.	.6	.0	.0	.0	.3	.0	.2	.0	.0
13. ES blk	276.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.9	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.9	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.8	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	359.	.1	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	175.	.4	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	360.	.1	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	185.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: ExPP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	.0	.5	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
3. SW	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1
4. NE	.0	.0	.4	.0	.0	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.5
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: ExPP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=   .5 M/S           Z0= 100. CM          ALT=    13. (M)
  BRG= WORST CASE         VD=   .0 CM/S
 CLAS=    7 (G)           VS=   .0 CM/S
 MIXH= 1000. M           AMB=   .0 PPM
SIGTH=   10. DEGREES    TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	7	-150	7	0	AG	835	10.5	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	1156	9.7	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	100	9.7	.0	10.0
D. Telegrap SBA	-9	150	-9	0	AG	613	9.9	.0	13.5
E. Telegrap SBD	-9	0	-9	-150	AG	709	6.3	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	134	9.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	675	6.9	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	826	5.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	224	10.5	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	553	6.9	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	504	5.0	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	61	9.7	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	935	4.8	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	1156	4.8	.0	10.0
O. Telegra SBAX	-9	750	-9	150	AG	747	4.8	.0	13.5
P. Telegra SBDX	-9	-150	-9	-750	AG	709	4.8	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	899	4.8	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	826	4.8	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	614	4.8	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	504	4.8	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: ExPP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	14	-14	1.8
2. NW	-17	14	1.8
3. SW	-15	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-17	150	1.8
11. SW mdblk	-15	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-17	600	1.8
19. SW blk	-15	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: ExPP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	351.	2.4	.2	1.2	.0	.2	.0	.1	.0	.3
2. NW	169.	1.7	.4	.0	.0	.2	.5	.0	.2	.0
3. SW	9.	2.0	.0	.4	.0	.7	.1	.1	.3	.0
4. NE	188.	2.2	1.0	.3	.0	.0	.2	.0	.0	.2
5. ES mdblk	277.	1.3	.0	.0	.0	.0	.0	.0	.0	.5
6. WN mdblk	97.	1.2	.0	.0	.0	.0	.0	.0	.2	.1
7. WS mdblk	82.	1.4	.0	.1	.0	.0	.0	.0	.6	.0
8. EN mdblk	263.	1.3	.0	.0	.0	.0	.0	.0	.1	.1
9. SE mdblk	353.	2.0	1.1	.2	.1	.2	.1	.0	.0	.0
10. NW mdblk	171.	1.8	.2	.3	.0	.8	.0	.1	.0	.0
11. SW mdblk	8.	1.6	.3	.3	.0	.0	.6	.0	.0	.0
12. NE mdblk	188.	2.3	.1	1.5	.0	.2	.1	.0	.0	.0
13. ES blk	276.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	1.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: ExPP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
2. NW	.1	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. SW	.1	.0	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0
4. NE	.0	.2	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.2	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.4
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.0
17. SE blk	.0	.0	.0	.0	.7	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.3	.5	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.3	.0	.0	.5	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.8	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015NP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
      U=    .5 M/S              Z0= 100. CM           ALT=    13. (M)
    BRG= WORST CASE             VD=    .0 CM/S
   CLAS=     7 (G)              VS=    .0 CM/S
   MIXH= 1000. M               AMB=    .0 PPM
  SIGTH=    10. DEGREES        TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	620	3.3	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	640	2.4	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	30	4.3	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	290	3.2	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	340	2.4	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	50	4.3	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	70	4.0	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	180	2.6	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	30	4.3	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	170	4.0	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	150	2.6	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	50	4.3	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	650	2.3	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	640	2.3	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	340	2.3	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	340	2.3	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	100	2.3	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	180	2.3	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	220	2.3	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	150	2.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015NP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015NP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	353.	.4	.0	.2	.0	.0	.0	.0	.0	.0
2. NW	172.	.4	.1	.0	.0	.0	.1	.0	.0	.0
3. SW	7.	.4	.0	.0	.0	.1	.0	.0	.0	.0
4. NE	186.	.5	.3	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	95.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	85.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	263.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	.5	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.4	.0	.0	.0	.1	.0	.0	.0	.0
11. SW mdblk	7.	.4	.1	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	186.	.4	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	275.	.2	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015NP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015NP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S            Z0= 100. CM         ALT=    13. (M)
  BRG= WORST CASE           VD=    .0 CM/S
 CLAS=     7 (G)            VS=    .0 CM/S
 MIXH= 1000. M             AMB=    .0 PPM
SIGTH=    10. DEGREES     TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	4	-150	4	0	AG	1540	3.5	.0	11.8
B. Telegrap NBD	4	0	4	150	AG	1570	2.5	.0	10.0
C. Telegrap NBL	2	-150	0	0	AG	50	4.3	.0	10.0
D. Telegrap SBA	-4	150	-4	0	AG	1000	3.4	.0	11.8
E. Telegrap SBD	-4	0	-4	-150	AG	1020	2.4	.0	10.0
F. Telegrap SBL	-2	150	0	0	AG	30	4.3	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	120	4.0	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	150	2.6	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	60	4.3	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	90	4.0	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	180	2.6	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	30	4.3	.0	10.0
M. Telegra NBAX	4	-750	4	-150	AG	1590	2.3	.0	11.8
N. Telegra NBDX	4	150	4	750	AG	1570	2.3	.0	10.0
O. Telegra SBAX	-4	750	-4	150	AG	1030	2.3	.0	11.8
P. Telegra SBDX	-4	-150	-4	-750	AG	1020	2.3	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	180	2.3	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	150	2.3	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	120	2.3	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	180	2.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015NP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015NP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	188.	1.0	.7	.0	.0	.0	.1	.0	.0	.0
2. NW	171.	.9	.3	.0	.0	.0	.3	.0	.0	.0
3. SW	7.	.9	.0	.2	.0	.4	.0	.0	.0	.0
4. NE	187.	1.1	.7	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	275.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	96.	.3	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	84.	.3	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	264.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	1.1	.7	.0	.0	.0	.1	.0	.0	.0
10. NW mdblk	173.	.9	.1	.2	.0	.4	.0	.0	.0	.0
11. SW mdblk	7.	.9	.3	.0	.0	.0	.3	.0	.0	.0
12. NE mdblk	187.	.9	.0	.5	.0	.2	.0	.0	.0	.0
13. ES blk	275.	.2	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.8	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.7	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.8	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015NP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.3	.0	.0	.4	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015NP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S              Z0= 100. CM             ALT=     13. (M)
   BRG= WORST CASE             VD=    .0 CM/S
  CLAS=     7 (G)              VS=    .0 CM/S
  MIXH= 1000. M               AMB=    .0 PPM
 SIGTH=    10. DEGREES       TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	560	3.2	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	600	2.4	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	70	4.3	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	250	3.2	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	320	2.4	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	90	4.3	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	950	4.5	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	1140	4.3	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	70	4.3	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	770	4.4	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	760	3.0	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	60	4.3	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	630	2.3	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	600	2.3	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	340	2.3	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	320	2.3	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	1020	2.3	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	1140	2.3	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	830	2.3	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	760	2.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015NP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015NP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	278.	1.0	.1	.0	.0	.0	.0	.0	.5	.0
2. NW	98.	.9	.0	.0	.0	.0	.0	.0	.0	.2
3. SW	80.	1.0	.0	.0	.0	.0	.0	.0	.0	.5
4. NE	260.	.8	.0	.0	.0	.0	.0	.0	.2	.0
5. ES mdblk	278.	1.0	.0	.0	.0	.0	.0	.0	.0	.7
6. WN mdblk	97.	.8	.0	.0	.0	.0	.0	.0	.1	.1
7. WS mdblk	83.	.9	.0	.0	.0	.0	.0	.0	.6	.0
8. EN mdblk	261.	.9	.0	.0	.0	.0	.0	.0	.0	.2
9. SE mdblk	354.	.5	.2	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.5	.0	.0	.0	.1	.0	.0	.0	.0
11. SW mdblk	7.	.5	.1	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	186.	.5	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	276.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.5	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.6	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.4	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015NP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015NP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S              Z0= 100. CM            ALT=    13. (M)
  BRG= WORST CASE             VD=    .0 CM/S
 CLAS=     7 (G)              VS=    .0 CM/S
 MIXH= 1000. M               AMB=    .0 PPM
SIGTH=    10. DEGREES       TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
	LINK COORDINATES (M)								
A. BART Acc NBA	0	-150	0	0	AG	0	2.3	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	0	2.3	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	2.3	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	0	2.3	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	160	2.6	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	0	2.3	.0	10.0
G. 40th Str EBA	-150	-5	0	-5	AG	1130	3.5	.0	13.5
H. 40th Str EBD	0	-5	150	-5	AG	1050	2.5	.0	10.0
I. 40th Str EBL	-150	-2	0	0	AG	0	2.3	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	820	3.4	.0	10.0
K. 40th Str WBD	0	7	-150	7	AG	820	2.5	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	80	4.3	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	2.3	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	0	2.3	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	0	2.3	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	160	2.3	.0	10.0
Q. 40th St EBAX	-750	-5	-150	-5	AG	1130	2.3	.0	13.5
R. 40th St EBDX	150	-5	750	-5	AG	1050	2.3	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	900	2.3	.0	10.0
T. 40th St WBDX	-150	7	-750	7	AG	820	2.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015NP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
	COORDINATES (M)		
1. SE	7	-12	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-12	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-12	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015NP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	276.	.8	.0	.0	.0	.0	.0	.0	.5	.0
2. NW	97.	.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	278.	.7	.0	.0	.0	.0	.0	.0	.5	.0
4. NE	98.	.7	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.7	.0	.0	.0	.0	.0	.0	.0	.4
6. WN mdblk	97.	.6	.0	.0	.0	.0	.0	.0	.1	.0
7. WS mdblk	82.	.7	.0	.0	.0	.0	.0	.0	.5	.0
8. EN mdblk	263.	.7	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	351.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	179.	.1	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	9.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	181.	.1	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.5	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	.6	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	355.	.1	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	180.	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	5.	.1	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	181.	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015NP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015NP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	13. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	10.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	7	-150	7	0	AG	1280	4.3	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	1560	3.2	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	230	4.5	.0	10.0
D. Telegrap SBA	-7	150	-7	0	AG	780	3.6	.0	11.8
E. Telegrap SBD	-7	0	-7	-150	AG	760	2.5	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	110	4.3	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	840	3.7	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	910	2.6	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	250	4.5	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	600	3.5	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	900	2.6	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	40	4.3	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	1510	2.3	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	1560	2.3	.0	10.0
O. Telegra SBAX	-7	750	-7	150	AG	890	2.3	.0	11.8
P. Telegra SBDX	-7	-150	-7	-750	AG	760	2.3	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	1090	2.3	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	910	2.3	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	640	2.3	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	900	2.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015NP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	14	-14	1.8
2. NW	-14	14	1.8
3. SW	-14	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-14	150	1.8
11. SW mdblk	-14	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-14	600	1.8
19. SW blk	-14	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015NP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	351.	1.2	.1	.5	.0	.1	.0	.0	.0	.2
2. NW	170.	1.0	.2	.0	.0	.0	.2	.0	.1	.0
3. SW	8.	1.1	.0	.2	.0	.3	.0	.0	.2	.0
4. NE	188.	1.2	.6	.1	.0	.0	.0	.0	.0	.0
5. ES mdblk	276.	.7	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	99.	.8	.0	.0	.0	.0	.0	.0	.1	.0
7. WS mdblk	82.	.9	.0	.0	.0	.0	.0	.0	.4	.0
8. EN mdblk	263.	.7	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	1.2	.7	.0	.1	.0	.0	.0	.0	.0
10. NW mdblk	172.	.9	.1	.1	.0	.4	.0	.0	.0	.0
11. SW mdblk	8.	.8	.2	.0	.0	.0	.3	.0	.0	.0
12. NE mdblk	188.	1.1	.0	.6	.0	.1	.0	.0	.0	.0
13. ES blk	276.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.5	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.7	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.6	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	7.	.6	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.8	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015NP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
4. NE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0
17. SE blk	.0	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   1

     JOB: MacArthur BART Project
     RUN: 2015NP-06         (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I.  SITE VARIABLES

      U=   .5 M/S             Z0= 100. CM            ALT=    13. (M)
    BRG= WORST CASE           VD=    .0 CM/S
   CLAS=     7 (G)            VS=    .0 CM/S
   MIXH= 1000. M             AMB=    .0 PPM
  SIGTH=   10. DEGREES      TEMP= 10.0 DEGREE (C)

II.  LINK VARIABLES

    LINK        *  LINK COORDINATES (M)    *                  EF      H     W
  DESCRIPTION   *   X1    Y1    X2    Y2   * TYPE  VPH  (G/MI)   (M)   (M)
----------------*--------------------------*----------------------------------
A. M.L. Kin NBA *    4  -150     4     0 *  AG    360    4.0     .0  11.8
B. M.L. Kin NBD *    4     0     4   150 *  AG    630    2.7     .0  10.0
C. M.L. Kin NBL *    2  -150     0     0 *  AG     60    4.3     .0  10.0
D. M.L. Kin SBA *   -4   150    -4     0 *  AG    240    4.0     .0  11.8
E. M.L. Kin SBD *   -4     0    -4  -150 *  AG    300    2.6     .0  10.0
F. M.L. Kin SBL *   -2   150     0     0 *  AG     80    4.3     .0  10.0
G. MacArthu EBA * -150    -5     0    -5 *  AG    670    3.2     .0  15.3
H. MacArthu EBD *    0    -5   150    -5 *  AG    770    2.4     .0  13.5
I. MacArthu EBL * -150    -2     0     0 *  AG     80    4.3     .0  10.0
J. MacArthu WBA *  150     5     0     5 *  AG   1120    3.3     .0  15.3
K. MacArthu WBD *    0     5  -150     5 *  AG    970    2.4     .0  13.5
L. MacArthu WBL *  150     2     0     0 *  AG     60    4.3     .0  10.0
M. M.L. Ki NBAX *    4  -750     4  -150 *  AG    420    2.3     .0  11.8
N. M.L. Ki NBDX *    4   150     4   750 *  AG    630    2.3     .0  10.0
O. M.L. Ki SBAX *   -4   750    -4   150 *  AG    320    2.3     .0  11.8
P. M.L. Ki SBDX *   -4  -150    -4  -750 *  AG    300    2.3     .0  10.0
Q. MacArth EBAX * -750    -5  -150    -5 *  AG    750    2.3     .0  15.3
R. MacArth EBDX *  150    -5   750    -5 *  AG    770    2.3     .0  13.5
S. MacArth WBAX *  750     5   150     5 *  AG   1180    2.3     .0  15.3
T. MacArth WBDX * -150     5  -750     5 *  AG    970    2.3     .0  13.5
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   2

     JOB: MacArthur BART Project
     RUN: 2015NP-06         (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X       Y      Z
------------*---------------------
 1. SE      *    11     -14    1.8
 2. NW      *   -11      14    1.8
 3. SW      *   -10     -14    1.8
 4. NE      *    10      14    1.8
 5. ES mdblk *  150     -14    1.8
 6. WN mdblk * -150      14    1.8
 7. WS mdblk * -150     -14    1.8
 8. EN mdblk *  150      14    1.8
 9. SE mdblk *   11    -150    1.8
10. NW mdblk *  -11     150    1.8
11. SW mdblk *  -10    -150    1.8
12. NE mdblk *   10     150    1.8
13. ES blk   *  600     -14    1.8
14. WN blk   * -600      14    1.8
15. WS blk   * -600     -14    1.8
16. EN blk   *  600      14    1.8
17. SE blk   *   11    -600    1.8
18. NW blk   *  -11     600    1.8
19. SW blk   *  -10    -600    1.8
20. NE blk   *   10     600    1.8
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015NP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SE	352.	.7	.0	.2	.0	.0	.0	.0	.0	.1
2. NW	97.	.8	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	81.	.7	.0	.0	.0	.0	.0	.0	.0	.2
4. NE	262.	.7	.0	.1	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.6	.0	.0	.0	.0	.0	.0	.0	.2
6. WN mdblk	97.	.6	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	83.	.6	.0	.0	.0	.0	.0	.0	.3	.0
8. EN mdblk	262.	.7	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	354.	.5	.2	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.5	.0	.0	.0	.1	.0	.0	.0	.0
11. SW mdblk	6.	.4	.0	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	187.	.5	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.5	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.6	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.3	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015NP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015NP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S              Z0= 100. CM            ALT=    13. (M)
  BRG= WORST CASE             VD=    .0 CM/S
 CLAS=     7 (G)              VS=    .0 CM/S
 MIXH= 1000. M               AMB=    .0 PPM
SIGTH=    10. DEGREES        TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	0	2.3	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	20	2.6	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	2.3	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	230	4.1	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	0	2.3	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	0	2.3	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	800	3.3	.0	13.5
H. MacArthu EBD	0	-5	150	-5	AG	800	2.4	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	0	2.3	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	970	3.3	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	1180	2.4	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	0	2.3	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	2.3	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	20	2.3	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	230	2.3	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	0	2.3	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	800	2.3	.0	13.5
R. MacArth EBDX	150	-5	750	-5	AG	800	2.3	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	970	2.3	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	1180	2.3	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015NP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	7	-14	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015NP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
1. SE	277.	.6	.0	.0	.0	.0	.0	.0	.3	.0
2. NW	97.	.7	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	278.	.6	.0	.0	.0	.0	.0	.0	.3	.0
4. NE	262.	.6	.0	.0	.0	.0	.0	.0	.1	.0
5. ES mdblk	277.	.6	.0	.0	.0	.0	.0	.0	.0	.2
6. WN mdblk	97.	.6	.0	.0	.0	.0	.0	.0	.1	.0
7. WS mdblk	82.	.6	.0	.0	.0	.0	.0	.0	.3	.0
8. EN mdblk	263.	.6	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	358.	.1	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	171.	.2	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdblk	1.	.1	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	189.	.2	.0	.0	.0	.2	.0	.0	.0	.0
13. ES blk	277.	.5	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.5	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.5	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	359.	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	175.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	1.	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	185.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015NP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

CONC/LINK (PPM)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.4
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015NP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
   U=    .5 M/S             Z0= 100. CM            ALT=    13. (M)
 BRG= WORST CASE            VD=    .0 CM/S
CLAS=     7 (G)             VS=    .0 CM/S
MIXH= 1000. M              AMB=    .0 PPM
SIGTH=   10. DEGREES       TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	7	-150	7	0	AG	970	4.5	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	1470	4.5	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	100	4.3	.0	10.0
D. Telegrap SBA	-9	150	-9	0	AG	630	4.4	.0	13.5
E. Telegrap SBD	-9	0	-9	-150	AG	720	3.0	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	220	4.5	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	630	3.2	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	890	2.4	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	180	4.3	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	1200	3.3	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	940	2.4	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	90	4.3	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	1070	2.3	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	1470	2.3	.0	10.0
O. Telegra SBAX	-9	750	-9	150	AG	850	2.3	.0	13.5
P. Telegra SBDX	-9	-150	-9	-750	AG	720	2.3	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	810	2.3	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	890	2.3	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	1290	2.3	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	940	2.3	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015NP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	14	-14	1.8
2. NW	-17	14	1.8
3. SW	-15	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-17	150	1.8
11. SW mdblk	-15	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-17	600	1.8
19. SW blk	-15	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015NP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SE	351.	1.4	.1	.7	.0	.1	.0	.0	.0	.1
2. NW	97.	1.1	.0	.2	.0	.2	.0	.0	.0	.0
3. SW	9.	1.0	.0	.2	.0	.3	.0	.0	.1	.0
4. NE	189.	1.2	.5	.2	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.8	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	96.	.7	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	83.	.7	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdblk	263.	.9	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	1.0	.6	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	170.	.9	.0	.2	.0	.4	.0	.0	.0	.0
11. SW mdblk	8.	.8	.1	.1	.0	.0	.3	.0	.0	.0
12. NE mdblk	188.	1.3	.0	.9	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.7	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.7	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.6	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.6	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.6	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.7	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015NP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015PP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=   .5 M/S            Z0= 100. CM           ALT=    13. (M)
   BRG= WORST CASE          VD=    .0 CM/S
  CLAS=     7 (G)           VS=    .0 CM/S
  MIXH= 1000. M            AMB=    .0 PPM
 SIGTH=   10. DEGREES     TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	641	3.3	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	661	2.4	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	31	4.3	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	296	3.2	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	347	2.4	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	50	4.3	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	71	4.0	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	180	2.6	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	30	4.3	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	170	4.0	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	151	2.6	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	50	4.3	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	672	2.3	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	661	2.3	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	346	2.3	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	347	2.3	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	101	2.3	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	180	2.3	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	220	2.3	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	151	2.3	.0	10.0

(X1, Y1, X2, Y2 = LINK COORDINATES (M))

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015PP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

(X, Y, Z = COORDINATES (M))

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015PP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
						CONC/LINK (PPM)				
1. SE	353.	.5	.0	.2	.0	.0	.0	.0	.0	.0
2. NW	172.	.4	.1	.0	.0	.0	.1	.0	.0	.0
3. SW	7.	.4	.0	.0	.0	.1	.0	.0	.0	.0
4. NE	186.	.5	.3	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	95.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	85.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	263.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	.5	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.4	.0	.0	.0	.1	.0	.0	.0	.0
11. SW mdblk	7.	.4	.1	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	186.	.4	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	275.	.2	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015PP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015PP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S            Z0= 100. CM          ALT=    13. (M)
  BRG= WORST CASE           VD=    .0 CM/S
 CLAS=     7 (G)            VS=    .0 CM/S
 MIXH= 1000. M             AMB=    .0 PPM
SIGTH=    10. DEGREES      TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	4	-150	4	0	AG	1566	3.5	.0	11.8
B. Telegrap NBD	4	0	4	150	AG	1594	2.5	.0	10.0
C. Telegrap NBL	2	-150	0	0	AG	50	4.3	.0	10.0
D. Telegrap SBA	-4	150	-4	0	AG	1046	3.4	.0	11.8
E. Telegrap SBD	-4	0	-4	-150	AG	1068	2.4	.0	10.0
F. Telegrap SBL	-2	150	0	0	AG	30	4.3	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	120	4.0	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	152	2.6	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	60	4.3	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	90	4.0	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	180	2.6	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	32	4.3	.0	10.0
M. Telegra NBAX	4	-750	4	-150	AG	1616	2.3	.0	11.8
N. Telegra NBDX	4	150	4	750	AG	1594	2.3	.0	10.0
O. Telegra SBAX	-4	750	-4	150	AG	1076	2.3	.0	11.8
P. Telegra SBDX	-4	-150	-4	-750	AG	1068	2.3	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	180	2.3	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	152	2.3	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	122	2.3	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	180	2.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015PP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015PP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	188.	1.0	.7	.0	.0	.0	.1	.0	.0	.0
2. NW	171.	.9	.3	.0	.0	.0	.3	.0	.0	.0
3. SW	7.	.9	.0	.2	.0	.5	.0	.0	.0	.0
4. NE	187.	1.1	.7	.0	.0	.0	.1	.0	.0	.0
5. ES mdblk	275.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	96.	.3	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	84.	.3	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	264.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	1.1	.7	.0	.0	.0	.1	.0	.0	.0
10. NW mdblk	173.	.9	.1	.2	.0	.5	.0	.0	.0	.0
11. SW mdblk	7.	.9	.3	.0	.0	.0	.3	.0	.0	.0
12. NE mdblk	187.	1.0	.0	.5	.0	.2	.0	.0	.0	.0
13. ES blk	275.	.2	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.8	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.8	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.8	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015PP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.3	.0	.0	.4	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015PP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
       U=    .5 M/S              Z0= 100. CM           ALT=    13. (M)
     BRG= WORST CASE             VD=    .0 CM/S
    CLAS=     7 (G)              VS=    .0 CM/S
    MIXH= 1000. M               AMB=    .0 PPM
   SIGTH=    10. DEGREES        TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	516	3.2	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	622	2.4	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	65	4.3	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	266	3.2	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	424	2.4	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	81	4.3	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	987	4.5	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	1097	4.3	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	70	4.3	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	834	4.5	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	790	3.0	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	114	4.3	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	581	2.3	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	622	2.3	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	347	2.3	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	424	2.3	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	1057	2.3	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	1097	2.3	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	948	2.3	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	790	2.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015PP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015PP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	278.	1.0	.1	.0	.0	.0	.0	.0	.5	.0
2. NW	98.	1.0	.0	.0	.0	.0	.0	.0	.0	.2
3. SW	80.	1.1	.0	.0	.0	.0	.0	.0	.0	.5
4. NE	260.	.8	.0	.0	.0	.0	.0	.0	.2	.0
5. ES mdblk	278.	1.0	.0	.0	.0	.0	.0	.0	.0	.6
6. WN mdblk	97.	.8	.0	.0	.0	.0	.0	.0	.1	.1
7. WS mdblk	83.	1.0	.0	.0	.0	.0	.0	.0	.6	.0
8. EN mdblk	261.	1.0	.0	.0	.0	.0	.0	.0	.0	.2
9. SE mdblk	354.	.5	.2	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.5	.0	.0	.0	.1	.0	.0	.0	.0
11. SW mdblk	7.	.5	.1	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	186.	.5	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	276.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.6	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.4	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015PP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015PP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S            Z0= 100. CM           ALT=     13. (M)
   BRG= WORST CASE           VD=    .0 CM/S
  CLAS=     7 (G)            VS=    .0 CM/S
  MIXH= 1000. M             AMB=    .0 PPM
 SIGTH=    10. DEGREES     TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		LINK COORDINATES (M)									
A. BART Acc NBA	*	0	-150	0	0	*	AG	46	4.0	.0	10.0
B. BART Acc NBD	*	0	0	0	150	*	AG	0	2.3	.0	10.0
C. BART Acc NBL	*	2	-150	0	0	*	AG	126	4.3	.0	10.0
D. BART Acc SBA	*	0	150	0	0	*	AG	0	2.3	.0	10.0
E. BART Acc SBD	*	0	0	0	-150	*	AG	168	2.6	.0	10.0
F. BART Acc SBL	*	-2	150	0	0	*	AG	0	2.3	.0	10.0
G. 40th Str EBA	*	-150	-5	0	-5	*	AG	1108	3.5	.0	13.5
H. 40th Str EBD	*	0	-5	150	-5	*	AG	1042	2.5	.0	10.0
I. 40th Str EBL	*	-150	-2	0	0	*	AG	0	2.3	.0	10.0
J. 40th Str WBA	*	150	7	0	7	*	AG	833	3.4	.0	10.0
K. 40th Str WBD	*	0	7	-150	7	*	AG	959	2.5	.0	10.0
L. 40th Str WBL	*	150	5	0	0	*	AG	56	4.3	.0	10.0
M. BART Ac NBAX	*	0	-750	0	-150	*	AG	172	2.3	.0	10.0
N. BART Ac NBDX	*	0	150	0	750	*	AG	0	2.3	.0	10.0
O. BART Ac SBAX	*	0	750	0	150	*	AG	0	2.3	.0	10.0
P. BART Ac SBDX	*	0	-150	0	-750	*	AG	168	2.3	.0	10.0
Q. 40th St EBAX	*	-750	-5	-150	-5	*	AG	1108	2.3	.0	13.5
R. 40th St EBDX	*	150	-5	750	-5	*	AG	1042	2.3	.0	10.0
S. 40th St WBAX	*	750	7	150	7	*	AG	889	2.3	.0	10.0
T. 40th St WBDX	*	-150	7	-750	7	*	AG	959	2.3	.0	10.0

□

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015PP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	X	Y	Z
		COORDINATES (M)		
1. SE	*	7	-12	1.8
2. NW	*	-7	14	1.8
3. SW	*	-7	-14	1.8
4. NE	*	7	14	1.8
5. ES mdblk	*	150	-12	1.8
6. WN mdblk	*	-150	14	1.8
7. WS mdblk	*	-150	-14	1.8
8. EN mdblk	*	150	14	1.8
9. SE mdblk	*	7	-150	1.8
10. NW mdblk	*	-7	150	1.8
11. SW mdblk	*	-7	-150	1.8
12. NE mdblk	*	7	150	1.8
13. ES blk	*	600	-12	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	7	-600	1.8
18. NW blk	*	-7	600	1.8
19. SW blk	*	-7	-600	1.8
20. NE blk	*	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015PP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	276.	.8	.0	.0	.0	.0	.0	.0	.5	.0
2. NW	97.	.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	278.	.7	.0	.0	.0	.0	.0	.0	.5	.0
4. NE	98.	.6	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.7	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	98.	.7	.0	.0	.0	.0	.0	.0	.2	.0
7. WS mdblk	82.	.7	.0	.0	.0	.0	.0	.0	.5	.0
8. EN mdblk	263.	.7	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	.3	.0	.0	.1	.0	.0	.0	.0	.0
10. NW mdblk	179.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	9.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	182.	.2	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	276.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	.6	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	355.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	180.	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	5.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	181.	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015PP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015PP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S              Z0= 100. CM           ALT=    13. (M)
  BRG= WORST CASE             VD=    .0 CM/S
 CLAS=     7 (G)              VS=    .0 CM/S
 MIXH= 1000. M               AMB=    .0 PPM
SIGTH=   10. DEGREES        TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1 (M)	Y1 (M)	X2 (M)	Y2 (M)	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	7	-150	7	0	AG	1362	4.3	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	1587	3.2	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	226	4.5	.0	10.0
D. Telegrap SBA	-7	150	-7	0	AG	828	3.7	.0	11.8
E. Telegrap SBD	-7	0	-7	-150	AG	826	2.6	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	110	4.3	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	823	3.7	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	928	2.6	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	219	4.5	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	608	3.6	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	889	2.6	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	54	4.3	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	1588	2.3	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	1587	2.3	.0	10.0
O. Telegra SBAX	-7	750	-7	150	AG	938	2.3	.0	11.8
P. Telegra SBDX	-7	-150	-7	-750	AG	826	2.3	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	1042	2.3	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	928	2.3	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	662	2.3	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	889	2.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015PP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X (M)	Y (M)	Z (M)
1. SE	14	-14	1.8
2. NW	-14	14	1.8
3. SW	-14	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-14	150	1.8
11. SW mdblk	-14	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-14	600	1.8
19. SW blk	-14	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015PP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	350.	1.2	.2	.5	.0	.1	.0	.0	.0	.2
2. NW	170.	1.1	.2	.0	.0	.0	.2	.0	.1	.0
3. SW	8.	1.1	.0	.2	.0	.4	.0	.0	.2	.0
4. NE	188.	1.3	.6	.1	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.7	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	98.	.8	.0	.0	.0	.0	.0	.0	.1	.0
7. WS mdblk	82.	.9	.0	.0	.0	.0	.0	.0	.4	.0
8. EN mdblk	263.	.7	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	1.2	.7	.0	.1	.0	.0	.0	.0	.0
10. NW mdblk	172.	.9	.1	.1	.0	.4	.0	.0	.0	.0
11. SW mdblk	8.	.9	.2	.1	.0	.0	.3	.0	.0	.0
12. NE mdblk	188.	1.1	.0	.7	.0	.1	.0	.0	.0	.0
13. ES blk	276.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.5	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.8	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	7.	.7	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.8	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015PP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
4. NE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0
17. SE blk	.0	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015PP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
   U=    .5 M/S           Z0= 100. CM          ALT=    13. (M)
 BRG= WORST CASE          VD=    .0 CM/S
CLAS=     7 (G)           VS=    .0 CM/S
MIXH= 1000. M            AMB=    .0 PPM
SIGTH=   10. DEGREES     TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	370	4.0	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	580	2.6	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	60	4.3	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	294	4.0	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	321	2.6	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	130	4.3	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	712	3.2	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	877	2.4	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	64	4.3	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	1064	3.3	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	985	2.4	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	69	4.3	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	430	2.3	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	580	2.3	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	424	2.3	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	321	2.3	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	776	2.3	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	877	2.3	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	1133	2.3	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	985	2.3	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015PP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015PP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SE	352.	.7	.0	.2	.0	.0	.0	.0	.0	.1
2. NW	97.	.9	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	82.	.7	.0	.0	.0	.0	.0	.0	.0	.2
4. NE	262.	.7	.0	.0	.0	.0	.0	.0	.1	.0
5. ES mdblk	278.	.7	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	97.	.7	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	83.	.6	.0	.0	.0	.0	.0	.0	.3	.0
8. EN mdblk	262.	.7	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	354.	.5	.2	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.5	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdblk	6.	.5	.0	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	187.	.5	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.5	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.6	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.3	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.4	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015PP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015PP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	0	2.3	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	60	2.6	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	2.3	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	189	4.0	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	0	2.3	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	138	4.3	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	817	3.3	.0	13.5
H. MacArthu EBD	0	-5	150	-5	AG	955	2.4	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	0	2.3	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	991	3.3	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	1120	2.4	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	0	2.3	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	2.3	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	60	2.3	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	327	2.3	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	0	2.3	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	817	2.3	.0	13.5
R. MacArth EBDX	150	-5	750	-5	AG	955	2.3	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	991	2.3	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	1120	2.3	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015PP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	7	-14	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015PP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	277.	.6	.0	.0	.0	.0	.0	.0	.3	.0
2. NW	97.	.7	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	278.	.6	.0	.0	.0	.0	.0	.0	.3	.0
4. NE	262.	.6	.0	.0	.0	.0	.0	.0	.1	.0
5. ES mdblk	278.	.6	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	97.	.6	.0	.0	.0	.0	.0	.0	.1	.0
7. WS mdblk	83.	.6	.0	.0	.0	.0	.0	.0	.3	.0
8. EN mdblk	263.	.7	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	359.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	172.	.4	.0	.0	.0	.1	.0	.1	.0	.0
11. SW mdblk	1.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	189.	.3	.0	.0	.0	.1	.0	.0	.0	.0
13. ES blk	277.	.6	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.5	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.5	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	360.	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	175.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	1.	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	185.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015PP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.4
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.2
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2015PP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
	LINK COORDINATES (M)								
A. Telegrap NBA	7	-150	7	0	AG	998	4.5	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	1594	4.5	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	110	4.3	.0	10.0
D. Telegrap SBA	-9	150	-9	0	AG	635	4.4	.0	13.5
E. Telegrap SBD	-9	0	-9	-150	AG	749	3.0	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	195	4.3	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	696	3.2	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	900	2.4	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	269	4.5	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	1211	3.4	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	961	2.4	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	90	4.3	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	1108	2.3	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	1594	2.3	.0	10.0
O. Telegra SBAX	-9	750	-9	150	AG	830	2.3	.0	13.5
P. Telegra SBDX	-9	-150	-9	-750	AG	749	2.3	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	965	2.3	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	900	2.3	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	1301	2.3	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	961	2.3	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2015PP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
	COORDINATES (M)		
1. SE	14	-14	1.8
2. NW	-17	14	1.8
3. SW	-15	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-17	150	1.8
11. SW mdblk	-15	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-17	600	1.8
19. SW blk	-15	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2015PP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
						CONC/LINK (PPM)				
1. SE	351.	1.4	.1	.7	.0	.1	.0	.0	.0	.1
2. NW	97.	1.2	.0	.2	.0	.2	.0	.0	.0	.0
3. SW	9.	1.1	.0	.2	.0	.3	.0	.0	.1	.0
4. NE	189.	1.3	.5	.2	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.8	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	96.	.8	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.8	.0	.0	.0	.0	.0	.0	.3	.0
8. EN mdblk	263.	.9	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	1.1	.6	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	170.	.9	.0	.2	.0	.4	.0	.0	.0	.0
11. SW mdblk	8.	.9	.1	.1	.0	.0	.3	.0	.0	.0
12. NE mdblk	188.	1.3	.0	.9	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.7	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.7	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.6	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.6	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.6	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.8	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2015PP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030NP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	790	1.4	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	830	1.0	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	40	1.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	330	1.3	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	400	1.0	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	60	1.7	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	100	1.6	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	220	1.1	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	40	1.7	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	230	1.6	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	210	1.1	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	70	1.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	830	1.0	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	830	1.0	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	390	1.0	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	400	1.0	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	140	1.0	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	220	1.0	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	300	1.0	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	210	1.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030NP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030NP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SE	353.	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	172.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	7.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	186.	.3	.1	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.1	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	95.	.1	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	85.	.1	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	263.	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	.2	.1	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	7.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	186.	.2	.0	.1	.0	.0	.0	.0	.0	.0
13. ES blk	275.	.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.1	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030NP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030NP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
      U=    .5 M/S              Z0= 100. CM            ALT=     13. (M)
    BRG= WORST CASE             VD=    .0 CM/S
   CLAS=     7 (G)              VS=    .0 CM/S
   MIXH= 1000. M               AMB=    .0 PPM
  SIGTH=    10. DEGREES        TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	4	-150	4	0	AG	1720	1.4	.0	11.8
B. Telegrap NBD	4	0	4	150	AG	1770	1.1	.0	10.0
C. Telegrap NBL	2	-150	0	0	AG	90	1.7	.0	10.0
D. Telegrap SBA	-4	150	-4	0	AG	1140	1.4	.0	11.8
E. Telegrap SBD	-4	0	-4	-150	AG	1150	1.1	.0	10.0
F. Telegrap SBL	-2	150	0	0	AG	40	1.7	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	140	1.6	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	190	1.1	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	80	1.7	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	130	1.6	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	260	1.1	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	30	1.7	.0	10.0
M. Telegra NBAX	4	-750	4	-150	AG	1810	1.0	.0	11.8
N. Telegra NBDX	4	150	4	750	AG	1770	1.0	.0	10.0
O. Telegra SBAX	-4	750	-4	150	AG	1180	1.0	.0	11.8
P. Telegra SBDX	-4	-150	-4	-750	AG	1150	1.0	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	220	1.0	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	190	1.0	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	160	1.0	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	260	1.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030NP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030NP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	188.	.5	.3	.0	.0	.0	.0	.0	.0	.0
2. NW	171.	.4	.1	.0	.0	.0	.1	.0	.0	.0
3. SW	7.	.4	.0	.1	.0	.2	.0	.0	.0	.0
4. NE	187.	.5	.3	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	275.	.1	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	97.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	84.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	264.	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	.5	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.4	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdblk	7.	.4	.1	.0	.0	.0	.2	.0	.0	.0
12. NE mdblk	187.	.5	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	275.	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.1	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.1	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	353.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030NP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030NP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	710	1.4	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	780	1.0	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	80	1.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	300	1.3	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	350	1.0	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	100	1.7	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	1160	1.8	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	1370	1.7	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	90	1.7	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	1160	1.8	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	1160	1.7	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	60	1.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	790	1.0	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	780	1.0	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	400	1.0	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	350	1.0	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	1250	1.0	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	1370	1.0	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	1220	1.0	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	1160	1.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030NP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030NP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	278.	.5	.0	.0	.0	.0	.0	.0	.3	.0
2. NW	98.	.5	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	80.	.5	.0	.0	.0	.0	.0	.0	.0	.3
4. NE	260.	.5	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.5	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	98.	.5	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.5	.0	.0	.0	.0	.0	.0	.3	.0
8. EN mdblk	262.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	.3	.1	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	7.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	186.	.3	.0	.1	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030NP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
					CONC/LINK (PPM)							
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030NP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	0	1.0	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	0	1.0	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	1.0	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	0	1.0	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	160	1.1	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	0	1.0	.0	10.0
G. 40th Str EBA	-150	-5	0	-5	AG	1360	1.5	.0	13.5
H. 40th Str EBD	0	-5	150	-5	AG	1280	1.1	.0	10.0
I. 40th Str EBL	-150	-2	0	0	AG	0	1.0	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	1210	1.5	.0	10.0
K. 40th Str WBD	0	7	-150	7	AG	1210	1.1	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	80	1.7	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	1.0	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	0	1.0	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	0	1.0	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	160	1.0	.0	10.0
Q. 40th St EBAX	-750	-5	-150	-5	AG	1360	1.0	.0	13.5
R. 40th St EBDX	150	-5	750	-5	AG	1280	1.0	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	1290	1.0	.0	10.0
T. 40th St WBDX	-150	7	-750	7	AG	1210	1.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030NP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	7	-12	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-12	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-12	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030NP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
						CONC/LINK (PPM)				
1. SE	277.	.4	.0	.0	.0	.0	.0	.0	.3	.0
2. NW	98.	.4	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	278.	.4	.0	.0	.0	.0	.0	.0	.2	.0
4. NE	98.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.4	.0	.0	.0	.0	.0	.0	.0	.2
6. WN mdblk	97.	.3	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.4	.0	.0	.0	.0	.0	.0	.3	.0
8. EN mdblk	262.	.4	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	351.	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	179.	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	9.	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	181.	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	355.	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	179.	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	5.	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	180.	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030NP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   1

     JOB: MacArthur BART Project
     RUN: 2030NP-05          (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I.  SITE VARIABLES

     U=    .5 M/S            Z0= 100. CM           ALT=    13. (M)
   BRG= WORST CASE           VD=    .0 CM/S
  CLAS=     7 (G)            VS=    .0 CM/S
  MIXH= 1000. M             AMB=    .0 PPM
 SIGTH=    10. DEGREES     TEMP= 10.0 DEGREE (C)

II.  LINK VARIABLES

     LINK        *  LINK COORDINATES (M)     *                   EF      H      W
  DESCRIPTION    *   X1     Y1     X2     Y2 * TYPE  VPH   (G/MI)   (M)    (M)
-----------------*---------------------------*------------------------------
A. Telegrap NBA  *    7   -150      7      0 *  AG   1490    1.7      .0   11.8
B. Telegrap NBD  *    7      0      7    150 *  AG   1780    1.5      .0   10.0
C. Telegrap NBL  *    5   -150      0      0 *  AG    470    1.8      .0   10.0
D. Telegrap SBA  *   -7    150     -7      0 *  AG    900    1.5      .0   11.8
E. Telegrap SBD  *   -7      0     -7   -150 *  AG    810    1.1      .0   10.0
F. Telegrap SBL  *   -5    150      0      0 *  AG    130    1.7      .0   10.0
G. 40th Str EBA  * -150     -7      0     -7 *  AG   1040    1.6      .0   11.8
H. 40th Str EBD  *    0     -7    150     -7 *  AG   1150    1.1      .0   10.0
I. 40th Str EBL  * -150     -5      0      0 *  AG    280    1.8      .0   10.0
J. 40th Str WBA  *  150      7      0      7 *  AG    660    1.5      .0   11.8
K. 40th Str WBD  *    0      7   -150      7 *  AG   1290    1.2      .0   10.0
L. 40th Str WBL  *  150      5      0      0 *  AG     60    1.7      .0   10.0
M. Telegra NBAX  *    7   -750      7   -150 *  AG   1960    1.0      .0   11.8
N. Telegra NBDX  *    7    150      7    750 *  AG   1780    1.0      .0   10.0
O. Telegra SBAX  *   -7    750     -7    150 *  AG   1030    1.0      .0   11.8
P. Telegra SBDX  *   -7   -150     -7   -750 *  AG    810    1.0      .0   10.0
Q. 40th St EBAX  * -750     -7   -150     -7 *  AG   1320    1.0      .0   11.8
R. 40th St EBDX  *  150     -7    750     -7 *  AG   1150    1.0      .0   10.0
S. 40th St WBAX  *  750      7    150      7 *  AG    720    1.0      .0   11.8
T. 40th St WBDX  * -150      7   -750      7 *  AG   1290    1.0      .0   10.0
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   2

     JOB: MacArthur BART Project
     RUN: 2030NP-05          (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
  RECEPTOR   *    X       Y      Z
-------------*---------------------
 1. SE       *    14     -14    1.8
 2. NW       *   -14      14    1.8
 3. SW       *   -14     -14    1.8
 4. NE       *    14      14    1.8
 5. ES mdblk *   150     -14    1.8
 6. WN mdblk *  -150      14    1.8
 7. WS mdblk *  -150     -14    1.8
 8. EN mdblk *   150      14    1.8
 9. SE mdblk *    14    -150    1.8
10. NW mdblk *   -14     150    1.8
11. SW mdblk *   -14    -150    1.8
12. NE mdblk *    14     150    1.8
13. ES blk   *   600     -14    1.8
14. WN blk   *  -600      14    1.8
15. WS blk   *  -600     -14    1.8
16. EN blk   *   600      14    1.8
17. SE blk   *    14    -600    1.8
18. NW blk   *   -14     600    1.8
19. SW blk   *   -14    -600    1.8
20. NE blk   *    14     600    1.8
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030NP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	278.	.6	.2	.0	.0	.0	.0	.0	.2	.0
2. NW	168.	.5	.1	.0	.0	.0	.0	.0	.0	.0
3. SW	8.	.5	.0	.0	.0	.2	.0	.0	.1	.0
4. NE	188.	.6	.3	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	276.	.4	.0	.0	.0	.0	.0	.0	.0	.2
6. WN mdblk	99.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	81.	.4	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdblk	263.	.4	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	.6	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	172.	.4	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdblk	8.	.4	.0	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	188.	.5	.0	.3	.0	.0	.0	.0	.0	.0
13. ES blk	276.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	353.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	7.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030NP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
17. SE blk	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030NP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S            Z0= 100. CM           ALT=    13. (M)
  BRG= WORST CASE           VD=    .0 CM/S
 CLAS=     7 (G)            VS=    .0 CM/S
 MIXH= 1000. M             AMB=    .0 PPM
SIGTH=    10. DEGREES     TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	490	1.6	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	790	1.2	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	80	1.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	260	1.6	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	330	1.1	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	90	1.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	900	1.4	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	1000	1.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	90	1.7	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	1700	1.4	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	1560	1.1	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	70	1.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	570	1.0	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	790	1.0	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	350	1.0	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	330	1.0	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	990	1.0	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	1000	1.0	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	1770	1.0	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	1560	1.0	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030NP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030NP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	277.	.4	.0	.0	.0	.0	.0	.0	.1	.0
2. NW	97.	.5	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	81.	.4	.0	.0	.0	.0	.0	.0	.0	.1
4. NE	262.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.3	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdblk	97.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	83.	.4	.0	.0	.0	.0	.0	.0	.1	.0
8. EN mdblk	262.	.4	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	354.	.2	.1	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	6.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	187.	.3	.0	.1	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.4	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030NP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030NP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	0	1.0	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	20	1.1	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	1.0	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	230	1.6	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	0	1.0	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	0	1.0	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	1030	1.4	.0	13.5
H. MacArthu EBD	0	-5	150	-5	AG	1030	1.1	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	0	1.0	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	1560	1.4	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	1770	1.1	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	0	1.0	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	1.0	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	20	1.0	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	230	1.0	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	0	1.0	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	1030	1.0	.0	13.5
R. MacArth EBDX	150	-5	750	-5	AG	1030	1.0	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	1560	1.0	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	1770	1.0	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030NP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE	7	-14	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030NP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SE	278.	.3	.0	.0	.0	.0	.0	.0	.2	.0
2. NW	97.	.4	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	278.	.3	.0	.0	.0	.0	.0	.0	.2	.0
4. NE	262.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.3	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdblk	97.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.4	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdblk	263.	.4	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	359.	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	171.	.1	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	1.	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	189.	.1	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	359.	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	175.	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	1.	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	185.	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030NP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030NP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	*	7	-150	7	0	*	AG	1290	1.8	.0	11.8
B. Telegrap NBD	*	7	0	7	150	*	AG	1940	1.8	.0	10.0
C. Telegrap NBL	*	5	-150	0	0	*	AG	270	1.8	.0	10.0
D. Telegrap SBA	*	-9	150	-9	0	*	AG	690	1.7	.0	13.5
E. Telegrap SBD	*	-9	0	-9	-150	*	AG	790	1.2	.0	10.0
F. Telegrap SBL	*	-5	150	0	0	*	AG	220	1.8	.0	10.0
G. MacArthu EBA	*	-150	-5	0	-5	*	AG	740	1.3	.0	15.3
H. MacArthu EBD	*	0	-5	150	-5	*	AG	990	1.0	.0	13.5
I. MacArthu EBL	*	-150	-2	0	0	*	AG	300	1.8	.0	10.0
J. MacArthu WBA	*	150	5	0	5	*	AG	1630	1.4	.0	15.3
K. MacArthu WBD	*	0	5	-150	5	*	AG	1530	1.1	.0	13.5
L. MacArthu WBL	*	150	2	0	0	*	AG	110	1.7	.0	10.0
M. Telegra NBAX	*	7	-750	7	-150	*	AG	1560	1.0	.0	11.8
N. Telegra NBDX	*	7	150	7	750	*	AG	1940	1.0	.0	10.0
O. Telegra SBAX	*	-9	750	-9	150	*	AG	910	1.0	.0	13.5
P. Telegra SBDX	*	-9	-150	-9	-750	*	AG	790	1.0	.0	10.0
Q. MacArth EBAX	*	-750	-5	-150	-5	*	AG	1040	1.0	.0	15.3
R. MacArth EBDX	*	150	-5	750	-5	*	AG	990	1.0	.0	13.5
S. MacArth WBAX	*	750	5	150	5	*	AG	1740	1.0	.0	15.3
T. MacArth WBDX	*	-150	5	-750	5	*	AG	1530	1.0	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030NP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. SE	*	14	-14	1.8
2. NW	*	-17	14	1.8
3. SW	*	-15	-14	1.8
4. NE	*	14	14	1.8
5. ES mdblk	*	150	-14	1.8
6. WN mdblk	*	-150	14	1.8
7. WS mdblk	*	-150	-14	1.8
8. EN mdblk	*	150	14	1.8
9. SE mdblk	*	14	-150	1.8
10. NW mdblk	*	-17	150	1.8
11. SW mdblk	*	-15	-150	1.8
12. NE mdblk	*	14	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030NP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
						CONC/LINK (PPM)				
1. SE	351.	.7	.0	.3	.0	.0	.0	.0	.0	.0
2. NW	97.	.6	.0	.1	.0	.0	.0	.0	.0	.0
3. SW	9.	.5	.0	.1	.0	.1	.0	.0	.0	.0
4. NE	189.	.7	.2	.1	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.4	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdblk	97.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.4	.0	.0	.0	.0	.0	.0	.1	.0
8. EN mdblk	263.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	.5	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	171.	.4	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdblk	8.	.4	.0	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	188.	.6	.0	.4	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.4	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.4	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.3	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	7.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030NP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030PP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	13. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	10.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	811	1.4	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	851	1.0	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	41	1.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	336	1.3	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	407	1.0	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	60	1.7	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	101	1.6	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	220	1.1	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	40	1.7	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	230	1.6	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	211	1.1	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	70	1.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	852	1.0	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	851	1.0	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	396	1.0	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	407	1.0	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	141	1.0	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	220	1.0	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	300	1.0	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	211	1.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030PP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030PP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	353.	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	172.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	7.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	186.	.3	.1	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.1	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	95.	.1	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	85.	.1	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	263.	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	.2	.1	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	7.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	186.	.2	.0	.1	.0	.0	.0	.0	.0	.0
13. ES blk	275.	.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.1	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030PP-01 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030PP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S              Z0= 100. CM           ALT=    13. (M)
  BRG= WORST CASE             VD=    .0 CM/S
 CLAS=     7 (G)              VS=    .0 CM/S
 MIXH= 1000. M               AMB=    .0 PPM
SIGTH=   10. DEGREES        TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	4	-150	4	0	AG	1746	1.4	.0	11.8
B. Telegrap NBD	4	0	4	150	AG	1794	1.1	.0	10.0
C. Telegrap NBL	2	-150	0	0	AG	90	1.7	.0	10.0
D. Telegrap SBA	-4	150	-4	0	AG	1186	1.4	.0	11.8
E. Telegrap SBD	-4	0	-4	-150	AG	1198	1.1	.0	10.0
F. Telegrap SBL	-2	150	0	0	AG	40	1.7	.0	10.0
G. 45th Str EBA	-150	-2	0	-2	AG	140	1.6	.0	10.0
H. 45th Str EBD	0	-2	150	-2	AG	192	1.1	.0	10.0
I. 45th Str EBL	-150	-2	0	0	AG	80	1.7	.0	10.0
J. 45th Str WBA	150	2	0	2	AG	130	1.6	.0	10.0
K. 45th Str WBD	0	2	-150	2	AG	260	1.1	.0	10.0
L. 45th Str WBL	150	2	0	0	AG	32	1.7	.0	10.0
M. Telegra NBAX	4	-750	4	-150	AG	1836	1.0	.0	11.8
N. Telegra NBDX	4	150	4	750	AG	1794	1.0	.0	10.0
O. Telegra SBAX	-4	750	-4	150	AG	1226	1.0	.0	11.8
P. Telegra SBDX	-4	-150	-4	-750	AG	1198	1.0	.0	10.0
Q. 45th St EBAX	-750	-2	-150	-2	AG	220	1.0	.0	10.0
R. 45th St EBDX	150	-2	750	-2	AG	192	1.0	.0	10.0
S. 45th St WBAX	750	2	150	2	AG	162	1.0	.0	10.0
T. 45th St WBDX	-150	2	-750	2	AG	260	1.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030PP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-8	1.8
2. NW	-11	8	1.8
3. SW	-10	-8	1.8
4. NE	10	8	1.8
5. ES mdblk	150	-8	1.8
6. WN mdblk	-150	8	1.8
7. WS mdblk	-150	-8	1.8
8. EN mdblk	150	8	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030PP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	188.	.5	.3	.0	.0	.0	.0	.0	.0	.0
2. NW	171.	.4	.1	.0	.0	.0	.2	.0	.0	.0
3. SW	7.	.4	.0	.1	.0	.2	.0	.0	.0	.0
4. NE	187.	.5	.3	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	275.	.1	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	97.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	84.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	264.	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	.5	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.4	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdblk	7.	.4	.1	.0	.0	.0	.2	.0	.0	.0
12. NE mdblk	187.	.5	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	275.	.1	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.1	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.1	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	265.	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	353.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030PP-02 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030PP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S            Z0= 100. CM          ALT=    13. (M)
   BRG= WORST CASE           VD=    .0 CM/S
  CLAS=     7 (G)            VS=    .0 CM/S
  MIXH= 1000. M             AMB=    .0 PPM
 SIGTH=    10. DEGREES      TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	666	1.4	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	802	1.0	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	75	1.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	316	1.3	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	454	1.0	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	91	1.7	.0	10.0
G. 40th Str EBA	-150	-7	0	-7	AG	1197	1.8	.0	11.8
H. 40th Str EBD	0	-7	150	-7	AG	1327	1.7	.0	10.0
I. 40th Str EBL	-150	-5	0	0	AG	90	1.7	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	1224	1.8	.0	11.8
K. 40th Str WBD	0	7	-150	7	AG	1190	1.7	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	114	1.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	741	1.0	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	802	1.0	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	407	1.0	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	454	1.0	.0	10.0
Q. 40th St EBAX	-750	-7	-150	-7	AG	1287	1.0	.0	11.8
R. 40th St EBDX	150	-7	750	-7	AG	1327	1.0	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	1338	1.0	.0	11.8
T. 40th St WBDX	-150	7	-750	7	AG	1190	1.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030PP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X (M)	Y (M)	Z (M)
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030PP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
1. SE	278.	.5	.0	.0	.0	.0	.0	.0	.3	.0
2. NW	98.	.5	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	80.	.5	.0	.0	.0	.0	.0	.0	.0	.2
4. NE	260.	.5	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.5	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdblk	98.	.5	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.5	.0	.0	.0	.0	.0	.0	.3	.0
8. EN mdblk	262.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	353.	.3	.1	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	7.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	186.	.3	.0	.1	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	84.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.2	.0	.0	.0	.0	.0	.0	.0	.0

(Columns A–H: CONC/LINK (PPM))

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030PP-03 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

(Columns I–T: CONC/LINK (PPM))

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030PP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S            Z0= 100. CM           ALT=    13. (M)
   BRG= WORST CASE           VD=    .0 CM/S
  CLAS=     7 (G)            VS=    .0 CM/S
  MIXH= 1000. M             AMB=    .0 PPM
 SIGTH=    10. DEGREES      TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	46	1.6	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	0	1.0	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	126	1.7	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	0	1.0	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	168	1.1	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	0	1.0	.0	10.0
G. 40th Str EBA	-150	-5	0	-5	AG	1338	1.5	.0	13.5
H. 40th Str EBD	0	-5	150	-5	AG	1272	1.1	.0	10.0
I. 40th Str EBL	-150	-2	0	0	AG	0	1.0	.0	10.0
J. 40th Str WBA	150	7	0	7	AG	1223	1.5	.0	10.0
K. 40th Str WBD	0	7	-150	7	AG	1349	1.1	.0	10.0
L. 40th Str WBL	150	5	0	0	AG	56	1.7	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	172	1.0	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	0	1.0	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	0	1.0	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	168	1.0	.0	10.0
Q. 40th St EBAX	-750	-5	-150	-5	AG	1338	1.0	.0	13.5
R. 40th St EBDX	150	-5	750	-5	AG	1272	1.0	.0	10.0
S. 40th St WBAX	750	7	150	7	AG	1279	1.0	.0	10.0
T. 40th St WBDX	-150	7	-750	7	AG	1349	1.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030PP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	7	-12	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-12	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-12	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030PP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
						CONC/LINK (PPM)				
1. SE	277.	.4	.0	.0	.0	.0	.0	.0	.3	.0
2. NW	98.	.4	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	278.	.4	.0	.0	.0	.0	.0	.0	.2	.0
4. NE	98.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.4	.0	.0	.0	.0	.0	.0	.0	.2
6. WN mdblk	98.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.4	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdblk	263.	.4	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	.1	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	179.	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	9.	.1	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	181.	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	355.	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	180.	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	5.	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	181.	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030PP-04 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   1

     JOB: MacArthur BART Project
     RUN: 2030PP-05        (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I.  SITE VARIABLES

    U=    .5 M/S              Z0= 100. CM          ALT=    13. (M)
  BRG= WORST CASE             VD=   .0 CM/S
 CLAS=     7 (G)              VS=   .0 CM/S
 MIXH= 1000. M               AMB=   .0 PPM
SIGTH=    10. DEGREES       TEMP= 10.0 DEGREE (C)

II.  LINK VARIABLES

    LINK        *  LINK COORDINATES (M)   *              EF     H     W
  DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*----------------------------
A. Telegrap NBA *     7  -150     7     0 *  AG   1572   1.7     .0  11.8
B. Telegrap NBD *     7     0     7   150 *  AG   1807   1.6     .0  10.0
C. Telegrap NBL *     5  -150     0     0 *  AG    466   1.8     .0  10.0
D. Telegrap SBA *    -7   150    -7     0 *  AG    948   1.5     .0  11.8
E. Telegrap SBD *    -7     0    -7  -150 *  AG    876   1.1     .0  10.0
F. Telegrap SBL *    -5   150     0     0 *  AG    130   1.7     .0  10.0
G. 40th Str EBA *  -150    -7     0    -7 *  AG   1023   1.6     .0  11.8
H. 40th Str EBD *     0    -7   150    -7 *  AG   1168   1.1     .0  10.0
I. 40th Str EBL *  -150    -5     0     0 *  AG    249   1.8     .0  10.0
J. 40th Str WBA *   150     7     0     7 *  AG    668   1.5     .0  11.8
K. 40th Str WBD *     0     7  -150     7 *  AG   1279   1.2     .0  10.0
L. 40th Str WBL *   150     5     0     0 *  AG     74   1.7     .0  10.0
M. Telegra NBAX *     7  -750     7  -150 *  AG   2038   1.0     .0  11.8
N. Telegra NBDX *     7   150     7   750 *  AG   1807   1.0     .0  10.0
O. Telegra SBAX *    -7   750    -7   150 *  AG   1078   1.0     .0  11.8
P. Telegra SBDX *    -7  -150    -7  -750 *  AG    876   1.0     .0  10.0
Q. 40th St EBAX *  -750    -7  -150    -7 *  AG   1272   1.0     .0  11.8
R. 40th St EBDX *   150    -7   750    -7 *  AG   1168   1.0     .0  10.0
S. 40th St WBAX *   750     7   150     7 *  AG    742   1.0     .0  11.8
T. 40th St WBDX *  -150     7  -750     7 *  AG   1279   1.0     .0  10.0
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   2

     JOB: MacArthur BART Project
     RUN: 2030PP-05        (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
  RECEPTOR   *    X       Y      Z
-------------*---------------------
 1. SE       *     14     -14    1.8
 2. NW       *    -14      14    1.8
 3. SW       *    -14     -14    1.8
 4. NE       *     14      14    1.8
 5. ES mdblk *    150     -14    1.8
 6. WN mdblk *   -150      14    1.8
 7. WS mdblk *   -150     -14    1.8
 8. EN mdblk *    150      14    1.8
 9. SE mdblk *     14    -150    1.8
10. NW mdblk *    -14     150    1.8
11. SW mdblk *    -14    -150    1.8
12. NE mdblk *     14     150    1.8
13. ES blk   *    600     -14    1.8
14. WN blk   *   -600      14    1.8
15. WS blk   *   -600     -14    1.8
16. EN blk   *    600      14    1.8
17. SE blk   *     14    -600    1.8
18. NW blk   *    -14     600    1.8
19. SW blk   *    -14    -600    1.8
20. NE blk   *     14     600    1.8
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030PP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SE	351.	.6	.0	.3	.0	.0	.0	.0	.0	.0
2. NW	168.	.5	.1	.0	.0	.0	.0	.0	.0	.0
3. SW	8.	.5	.0	.0	.0	.2	.0	.0	.1	.0
4. NE	188.	.6	.3	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	276.	.4	.0	.0	.0	.0	.0	.0	.0	.2
6. WN mdblk	99.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	81.	.4	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdblk	263.	.4	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	.6	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	172.	.5	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdblk	8.	.4	.0	.0	.0	.0	.1	.0	.0	.0
12. NE mdblk	188.	.6	.0	.4	.0	.0	.0	.0	.0	.0
13. ES blk	276.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	353.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	7.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030PP-05 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
17. SE blk	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030PP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
      U=    .5 M/S            Z0= 100. CM           ALT=    13. (M)
    BRG= WORST CASE           VD=    .0 CM/S
   CLAS=     7 (G)            VS=    .0 CM/S
   MIXH= 1000. M             AMB=    .0 PPM
  SIGTH=   10. DEGREES      TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. M.L. Kin NBA	4	-150	4	0	AG	500	1.6	.0	11.8
B. M.L. Kin NBD	4	0	4	150	AG	740	1.2	.0	10.0
C. M.L. Kin NBL	2	-150	0	0	AG	80	1.7	.0	10.0
D. M.L. Kin SBA	-4	150	-4	0	AG	314	1.6	.0	11.8
E. M.L. Kin SBD	-4	0	-4	-150	AG	351	1.1	.0	10.0
F. M.L. Kin SBL	-2	150	0	0	AG	140	1.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	942	1.4	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	1107	1.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	74	1.7	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	1644	1.4	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	1575	1.1	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	79	1.7	.0	10.0
M. M.L. Ki NBAX	4	-750	4	-150	AG	580	1.0	.0	11.8
N. M.L. Ki NBDX	4	150	4	750	AG	740	1.0	.0	10.0
O. M.L. Ki SBAX	-4	750	-4	150	AG	454	1.0	.0	11.8
P. M.L. Ki SBDX	-4	-150	-4	-750	AG	351	1.0	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	1016	1.0	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	1107	1.0	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	1723	1.0	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	1575	1.0	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030PP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	11	-14	1.8
2. NW	-11	14	1.8
3. SW	-10	-14	1.8
4. NE	10	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	11	-150	1.8
10. NW mdblk	-11	150	1.8
11. SW mdblk	-10	-150	1.8
12. NE mdblk	10	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	11	-600	1.8
18. NW blk	-11	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030PP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	277.	.4	.0	.0	.0	.0	.0	.0	.1	.0
2. NW	97.	.5	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	81.	.4	.0	.0	.0	.0	.0	.0	.0	.1
4. NE	262.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.4	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdblk	97.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	83.	.4	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdblk	262.	.4	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	354.	.3	.1	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	173.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	6.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	187.	.3	.0	.1	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.4	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	186.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030PP-06 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030PP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S              Z0= 100. CM           ALT=    13. (M)
   BRG= WORST CASE             VD=    .0 CM/S
  CLAS=     7 (G)              VS=    .0 CM/S
  MIXH= 1000. M               AMB=    .0 PPM
 SIGTH=    10. DEGREES       TEMP= 10.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. BART Acc NBA	0	-150	0	0	AG	0	1.0	.0	10.0
B. BART Acc NBD	0	0	0	150	AG	60	1.1	.0	10.0
C. BART Acc NBL	2	-150	0	0	AG	0	1.0	.0	10.0
D. BART Acc SBA	0	150	0	0	AG	189	1.6	.0	10.0
E. BART Acc SBD	0	0	0	-150	AG	0	1.0	.0	10.0
F. BART Acc SBL	-2	150	0	0	AG	138	1.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	1047	1.4	.0	13.5
H. MacArthu EBD	0	-5	150	-5	AG	1185	1.1	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	0	1.0	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	1581	1.4	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	1710	1.1	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	0	1.0	.0	10.0
M. BART Ac NBAX	0	-750	0	-150	AG	0	1.0	.0	10.0
N. BART Ac NBDX	0	150	0	750	AG	60	1.0	.0	10.0
O. BART Ac SBAX	0	750	0	150	AG	327	1.0	.0	10.0
P. BART Ac SBDX	0	-150	0	-750	AG	0	1.0	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	1047	1.0	.0	13.5
R. MacArth EBDX	150	-5	750	-5	AG	1185	1.0	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	1581	1.0	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	1710	1.0	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030PP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	7	-14	1.8
2. NW	-7	14	1.8
3. SW	-7	-14	1.8
4. NE	7	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	7	-150	1.8
10. NW mdblk	-7	150	1.8
11. SW mdblk	-7	-150	1.8
12. NE mdblk	7	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	7	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	7	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030PP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	278.	.3	.0	.0	.0	.0	.0	.0	.2	.0
2. NW	97.	.4	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	278.	.3	.0	.0	.0	.0	.0	.0	.2	.0
4. NE	98.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	278.	.4	.0	.0	.0	.0	.0	.0	.0	.2
6. WN mdblk	97.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.4	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdblk	263.	.4	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	359.	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	172.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	1.	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	189.	.1	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	360.	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	175.	.1	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	1.	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	185.	.1	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030PP-07 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
					CONC/LINK (PPM)							
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.1
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: MacArthur BART Project
RUN: 2030PP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 13. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 10.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegrap NBA	7	-150	7	0	AG	1318	1.8	.0	11.8
B. Telegrap NBD	7	0	7	150	AG	2064	1.8	.0	10.0
C. Telegrap NBL	5	-150	0	0	AG	280	1.8	.0	10.0
D. Telegrap SBA	-9	150	-9	0	AG	695	1.7	.0	13.5
E. Telegrap SBD	-9	0	-9	-150	AG	819	1.5	.0	10.0
F. Telegrap SBL	-5	150	0	0	AG	195	1.7	.0	10.0
G. MacArthu EBA	-150	-5	0	-5	AG	806	1.4	.0	15.3
H. MacArthu EBD	0	-5	150	-5	AG	1000	1.0	.0	13.5
I. MacArthu EBL	-150	-2	0	0	AG	389	1.8	.0	10.0
J. MacArthu WBA	150	5	0	5	AG	1641	1.4	.0	15.3
K. MacArthu WBD	0	5	-150	5	AG	1551	1.1	.0	13.5
L. MacArthu WBL	150	2	0	0	AG	110	1.7	.0	10.0
M. Telegra NBAX	7	-750	7	-150	AG	1598	1.0	.0	11.8
N. Telegra NBDX	7	150	7	750	AG	2064	1.0	.0	10.0
O. Telegra SBAX	-9	750	-9	150	AG	890	1.0	.0	13.5
P. Telegra SBDX	-9	-150	-9	-750	AG	819	1.0	.0	10.0
Q. MacArth EBAX	-750	-5	-150	-5	AG	1195	1.0	.0	15.3
R. MacArth EBDX	150	-5	750	-5	AG	1000	1.0	.0	13.5
S. MacArth WBAX	750	5	150	5	AG	1751	1.0	.0	15.3
T. MacArth WBDX	-150	5	-750	5	AG	1551	1.0	.0	13.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: MacArthur BART Project
RUN: 2030PP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. SE	14	-14	1.8
2. NW	-17	14	1.8
3. SW	-15	-14	1.8
4. NE	14	14	1.8
5. ES mdblk	150	-14	1.8
6. WN mdblk	-150	14	1.8
7. WS mdblk	-150	-14	1.8
8. EN mdblk	150	14	1.8
9. SE mdblk	14	-150	1.8
10. NW mdblk	-17	150	1.8
11. SW mdblk	-15	-150	1.8
12. NE mdblk	14	150	1.8
13. ES blk	600	-14	1.8
14. WN blk	-600	14	1.8
15. WS blk	-600	-14	1.8
16. EN blk	600	14	1.8
17. SE blk	14	-600	1.8
18. NW blk	-17	600	1.8
19. SW blk	-15	-600	1.8
20. NE blk	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: MacArthur BART Project
RUN: 2030PP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. SE	351.	.7	.0	.3	.0	.0	.0	.0	.0	.0
2. NW	97.	.6	.0	.1	.0	.0	.0	.0	.0	.0
3. SW	10.	.5	.0	.1	.0	.1	.0	.0	.0	.0
4. NE	189.	.7	.3	.1	.0	.0	.0	.0	.0	.0
5. ES mdblk	277.	.4	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdblk	97.	.5	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	82.	.4	.0	.0	.0	.0	.0	.0	.1	.0
8. EN mdblk	263.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	352.	.5	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	171.	.4	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdblk	8.	.4	.0	.0	.0	.0	.2	.0	.0	.0
12. NE mdblk	188.	.7	.0	.5	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	96.	.4	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	264.	.4	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	354.	.3	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	7.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: MacArthur BART Project
RUN: 2030PP-08 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdblk	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdblk	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdblk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0

APPENDIX C

FHWA ROADWAY NOISE LEVEL ANALYSIS

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 45th Street to 40th Street
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20100 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	62.0	125.5	266.4

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 45th Street to 40th Street
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	87.7	185.9

TABLE Existing-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - M.L. King Jr. Way to BART Access
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	70.0	143.8	306.3

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - West Street to M.L. King Jr. Way
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14500 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	63.4	128.8	273.6

TABLE Existing-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 40th Street to MacArthur Boulevard
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.65

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	86.4	182.8

TABLE Existing-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - BART Access to Telegraph Avenue
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	69.3	142.1	302.7

TABLE Existing-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 38th Street to MacArthur Boulevard
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18000 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	58.3	116.9	247.7

TABLE Existing-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 40th Street to 38th Street
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17500 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	57.4	114.9	243.1

TABLE Existing-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - BART Access to Telegraph Avenue
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.90

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	61.5	119.6	251.1

TABLE Existing-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - West Street to M.L. King Jr. Way
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12000 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	59.8	115.4	241.9

TABLE Existing-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: I-580 - Telegraph Avenue to SR-24
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 213300 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
460.0	984.2	2117.0	4558.5

TABLE Existing-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: SR-24 - I-580 to 42nd Street
NOTES: Project Name - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 150700 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 79.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
365.3	781.5	1680.8	3619.3

TABLE Existing with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 45th Street to 40th Street
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20900   SPEED (MPH): 30   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	63.4	128.7	273.4

TABLE Existing with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 45th Street to 40th Street
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8400   SPEED (MPH): 35   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	89.8	190.4

TABLE Existing with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - M.L. King Jr. Way to BART Access
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18000 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	72.0	148.1	315.7

TABLE Existing with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - West Street to M.L. King Jr. Way
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	64.9	132.2	281.0

TABLE Existing with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 40th Street to MacArthur Boulevard
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	89.8	190.4

TABLE Existing with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - BART Access to Telegraph Avenue
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	69.1	141.6	301.6

TABLE Existing with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 38th Street to MacArthur Boulevard
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19200   SPEED (MPH): 30   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	60.4	121.9	258.5

TABLE Existing with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 40th Street to 38th Street
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18900   SPEED (MPH): 30   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	59.9	120.6	255.8

TABLE Existing with Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - BART Access to Telegraph Avenue
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	65.4	128.8	271.5

TABLE Existing with Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - West Street to M.L. King Jr. Way
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	60.8	117.8	247.2

TABLE Existing with Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: I-580 - Telegraph Avenue to SR-24
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 213300   SPEED (MPH): 65   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 60   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
460.0	984.2	2117.0	4558.5

TABLE Existing with Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: SR-24 - I-580 to 42nd Street
NOTES: Project Name - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 150700   SPEED (MPH): 65   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 48   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 79.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
365.3	781.5	1680.8	3619.3

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                    TABLE Future 2015 w/o Project-02
          FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 45th Street to 40th Street
NOTES: Project Name - Future 2015 w/o Project
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                        * * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26100    SPEED (MPH): 30     GRADE: .5

       TRAFFIC DISTRIBUTION PERCENTAGES
       DAY         NIGHT
       ---         -----
AUTOS
       88.08        9.34
M-TRUCKS
        1.65        0.19
H-TRUCKS
        0.66        0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

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                  * * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) =  64.82

    DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn
   70 Ldn       65 Ldn      60 Ldn      55 Ldn
   -------      -------     -------     -------
     0.0          72.2       148.6        316.7

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                    TABLE Future 2015 w/o Project-01
          FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 45th Street to 40th Street
NOTES: Project Name - Future 2015 w/o Project
______________________________________________________________________

                        * * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9900    SPEED (MPH): 35     GRADE: .5

       TRAFFIC DISTRIBUTION PERCENTAGES
       DAY         NIGHT
       ---         -----
AUTOS
       88.08        9.34
M-TRUCKS
        1.65        0.19
H-TRUCKS
        0.66        0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

______________________________________________________________________

                  * * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) =  62.63

    DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn
   70 Ldn       65 Ldn      60 Ldn      55 Ldn
   -------      -------     -------     -------
     0.0          0.0         99.8        212.2

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TABLE Future 2015 w/o Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - M.L. King Jr. Way to BART Access
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	75.9	157.0	335.1

TABLE Future 2015 w/o Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - West Street to M.L. King Jr. Way
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17000 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	69.6	142.7	303.9

TABLE Future 2015 w/o Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 40th Street to MacArthur Boulevard
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9500   SPEED (MPH): 35   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	97.2	206.5

TABLE Future 2015 w/o Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - BART Access to Telegraph Avenue
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19500   SPEED (MPH): 35   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	75.5	156.0	332.9

TABLE Future 2015 w/o Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 38th Street to MacArthur Boulevard
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23100 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	67.2	137.3	292.1

TABLE Future 2015 w/o Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 40th Street to 38th Street
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22700 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	66.5	135.7	288.8

TABLE Future 2015 w/o Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - BART Access to Telegraph Avenue
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	73.4	147.5	312.5

TABLE Future 2015 w/o Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - West Street to M.L. King Jr. Way
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	72.1	144.3	305.5

TABLE Future 2015 w/o Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: I-580 - Telegraph Avenue to SR-24
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 270200   SPEED (MPH): 65   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 60   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 81.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
537.3	1151.7	2478.1	5336.7

TABLE Future 2015 w/o Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: SR-24 - I-580 to 42nd Street
NOTES: Project Name - Future 2015 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 190900   SPEED (MPH): 65   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 48   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
426.7	914.4	1967.6	4237.1

TABLE Future 2015 with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 45th Street to 40th Street
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26900 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	73.5	151.5	323.1

TABLE Future 2015 with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 45th Street to 40th Street
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	101.7	216.5

TABLE Future 2015 with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - M.L. King Jr. Way to BART Access
NOTES: Project Name - Future 2015 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20500   SPEED (MPH): 35   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24   SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	77.8	161.2	344.1

TABLE Future 2015 with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - West Street to M.L. King Jr. Way
NOTES: Project Name - Future 2015 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17700   SPEED (MPH): 35   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24   SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	71.2	146.5	312.2

TABLE Future 2015 with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 40th Street to MacArthur Boulevard
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	101.1	215.0

TABLE Future 2015 with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - BART Access to Telegraph Avenue
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	75.2	155.5	331.7

TABLE Future 2015 with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 38th Street to MacArthur Boulevard
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24400 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	69.4	142.2	302.9

TABLE Future 2015 with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 40th Street to 38th Street
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24200 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	69.0	141.5	301.3

TABLE Future 2015 with Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - BART Access to Telegraph Avenue
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19500   SPEED (MPH): 35   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.77

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	77.6	156.9	333.2

TABLE Future 2015 with Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - West Street to M.L. King Jr. Way
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17600   SPEED (MPH): 35   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.32

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	73.2	147.0	311.3

TABLE Future 2015 with Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: I-580 - Telegraph Avenue to SR-24
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 270200   SPEED (MPH): 65   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 60   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 81.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
537.3	1151.7	2478.1	5336.7

TABLE Future 2015 with Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: SR-24 - I-580 to 42nd Street
NOTES: Project Name - Future 2015 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 190900   SPEED (MPH): 65   GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 48   SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
426.7	914.4	1967.6	4237.1

TABLE Future 2030 w/o Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 45th Street to 40th Street
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29600 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	77.8	161.2	344.3

TABLE Future 2030 w/o Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 45th Street to 40th Street
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	55.6	114.8	245.0

TABLE Future 2030 w/o Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - M.L. King Jr. Way to BART Access
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	89.5	187.3	400.8

TABLE Future 2030 w/o Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - West Street to M.L. King Jr. Way
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	84.1	175.2	374.6

TABLE Future 2030 w/o Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 40th Street to MacArthur Boulevard
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	53.2	109.3	233.0

TABLE Future 2030 w/o Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - BART Access to Telegraph Avenue
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	89.3	186.8	399.8

TABLE Future 2030 w/o Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 38th Street to MacArthur Boulevard
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28400 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	75.9	157.0	335.0

TABLE Future 2030 w/o Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 40th Street to 38th Street
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27700 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	74.8	154.4	329.5

TABLE Future 2030 w/o Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - BART Access to Telegraph Avenue
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	91.5	188.5	402.1

TABLE Future 2030 w/o Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - West Street to M.L. King Jr. Way
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.91

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	90.4	186.2	396.9

TABLE Future 2030 w/o Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: I-580 - Telegraph Avenue to SR-24
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 420900 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 83.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
720.0	1546.7	3329.6	7171.1

TABLE Future 2030 w/o Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: SR-24 - I-580 to 42nd Street
NOTES: Project Name - Future 2030 w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 297400 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 82.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
571.7	1228.1	2643.8	5693.9

TABLE Future 2030 with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 45th Street to 40th Street
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30400 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	79.1	164.1	350.4

TABLE Future 2030 with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 45th Street to 40th Street
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12600 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.68

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	56.5	116.7	248.9

TABLE Future 2030 with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - M.L. King Jr. Way to BART Access
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.51

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	91.4	191.6	410.1

TABLE Future 2030 with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - West Street to M.L. King Jr. Way
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24000 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	85.6	178.6	382.0

TABLE Future 2030 with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: M.L. King Jr. Way - 40th Street to MacArthur Boulevard
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12000 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	54.8	113.0	241.0

TABLE Future 2030 with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: 40th Street - BART Access to Telegraph Avenue
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25600 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	89.1	186.3	398.8

TABLE Future 2030 with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 38th Street to MacArthur Boulevard
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29700 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.38

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	78.0	161.6	345.1

TABLE Future 2030 with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: Telegraph Avenue - 40th Street to 38th Street
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29200 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	77.2	159.8	341.2

TABLE Future 2030 with Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - BART Access to Telegraph Avenue
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	95.2	197.0	420.4

TABLE Future 2030 with Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: MacArthur Boulevard - West Street to M.L. King Jr. Way
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	91.5	188.5	402.1

TABLE Future 2030 with Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: I-580 - Telegraph Avenue to SR-24
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 420900 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 83.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
720.0	1546.7	3329.6	7171.1

TABLE Future 2030 with Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/11/2007
ROADWAY SEGMENT: SR-24 - I-580 to 42nd Street
NOTES: Project Name - Future 2030 with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 297400 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 82.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
571.7	1228.1	2643.8	5693.9

APPENDIX D

WATER SUPPLY ASSESSMENT

EAST BAY
MUNICIPAL UTILITY DISTRICT

September 11, 2007

Gary Patton
Deputy Director, Planning and Zoning
Community and Economic Developemnt Agency
City of Oakland
250 Frank H. Ogawa Plaza
Oakland, CA 94612-2033

Re: Water Supply Assessment – MacArthur Transit Village Project, Oakland

Dear Mr. Patton:

This letter responds to your revised request of August 16, 2007, for water agency consultation concerning the MacArthur Transit Village Project (Enclosure 1) located in the City of Oakland. The East Bay Municipal Utility District (EBMUD) appreciates the opportunity to provide this response.

Pursuant to Sections 10910-10915 (SB-610) of the California Water Code, the project meets the threshold requirement for an assessment of water supply availability based on the amount of water this project would require, a mixed-use project that would demand an amount of water equivalent to or greater than the amount of water required by a 500 dwelling unit project.

Please note that this assessment addresses the issue of water supply only and is not a guarantee of service, and future water service is subject to rates and regulations in effect at the time.

Project Demand

The water demands for the MacArthur Transit Village Project area are accounted for in EBMUD's water demand projections as published in EBMUD's 2005 Urban Water Management Plan (UWMP/Enclosure 2). EBMUD's water demand projections account for anticipated future water demands within EBMUD's service boundaries and for variations in demand-attributed changes in development patterns. The current land uses include residential and commercial, and the existing water demand for the area is about 7,300 gallons per day (gpd). The estimated water demand for the proposed development that consists of commercial and residential is estimated to be about 134,300 gpd and is consistent with EBMUD's demand projections that indicate both densification and land use class changes in some areas with these types of land uses.

EBMUD's demand projections indicate both densification and land use changes in all existing land use classifications, including commercial and industrial land use areas, thus increasing EBMUD's overall demand. EBMUD's 2005 UWMP projects water demands over time, accounting for estimated variations in demand usage less conservation and recycled supply sources as noted in

Table 4.1 of the UWMP. For planning purposes, the demands are estimated in five-year increments, but it is recognized that actual incremental amounts may occur stepwise in shorter time increments. An increase in usage by one customer in a particular customer class does not require a strict gallon-for-gallon increase in conservation by other customers in that class as, in actuality, the amount of potable demand, conservation and recycled water use EBMUD-wide will vary somewhat. Periodically, EBMUD updates the demand projections to reconcile these variations, and the UWMP is updated as appropriate at each five-year cycle.

Project Area

The MacArthur Transit Village Project area is bounded by 40th Street to the north, Telegraph Avenue to the east, West MacArthur Boulevard to the south, and Highway 24 to the west. The project area consists of approximately 8.4 acres of residential and commercial land use. As described in the letter request for a Water Supply Assessment (WSA), the MacArthur Transit Village Project proposes approximately 675 high-density multi-family housing units; 39,000 square feet of ground-floor retail/flex space (part of live/work space); 5,000 square feet of neighborhood serving retail; and 5,000 square feet of community space.

EBMUD Water Demand Projections

Water consumption within the EBMUD service area has remained relatively level in recent years in spite of population and account growth. Since the 1970s, water demand has ranged from 200 to 220 million gallons per day (mgd) in non-drought years. The 2030 water demand forecast of 281 mgd for the EBMUD service area can be reduced to 232 mgd with the successful implementation of water recycling and conservation programs, as outlined in the UWMP. The MacArthur Transit Village Project will not change the EBMUD 2030 demand projection.

EBMUD Water Supply and Water Rights

EBMUD has water rights permits and licenses that allow for delivery of up to a maximum 325 mgd from the Mokelumne River, subject to the availability of Mokelumne River runoff and the senior water rights of other users. EBMUD's position in the hierarchy of Mokelumne River water users is determined by a variety of agreements between Mokelumne River water right holders, the appropriative water rights permits and licenses, which have been issued by the State, pre-1914 rights and riparian rights. Conditions that could, depending on hydrology, restrict EBMUD's ability to receive its full entitlement include:

- Upstream water use by prior right holders.
- Downstream water use by riparian and senior appropriators and other downstream obligations, including protection of public trust resources.
- Variability in rainfall and runoff.

During drought periods, the Mokelumne River can no longer meet EBMUD's projected customer demands. To address this, EBMUD has obtained and continues to seek supplemental supplies. EBMUD has a contract for water from the Central Valley Project (CVP), which is discussed below in the Supplemental Water Supply and Demand Management section of this assessment. EBMUD studies indicate that by 2030, even with the additional dry-year water supply provided through the Freeport Regional Water Project (FRWP), deficiencies in supply of up to 37 percent could occur during multi-year drought periods.

EBMUD UWMP

The UWMP, adopted on November 22, 2005 by the EBMUD Board of Directors by Resolution No. 33508-05, is a long-range planning document that reports on EBMUD's current and projected water usage; water supply programs; and conservation and recycling programs. A summary of EBMUD's demand and supply projections, in 5-year increments for a 25-year planning horizon is provided in a table (Enclosure 3) from the UWMP. The data reflects the latest actual and forecast values.

EBMUD's evaluation of water supply availability accounts for the diversions of both upstream and downstream water right holders and fishery releases on the Mokelumne River. Fishery releases are based on the requirements of a 1998 Joint Settlement Agreement (JSA) between EBMUD, U.S. Fish and Wildlife Service, and the California Department of Fish and Game. The JSA requires EBMUD to make minimum flow releases from its reservoirs to the lower Mokelumne River to protect and enhance the fishery resources and ecosystem of the river. As this water is released downriver, it is, therefore, not available for use by EBMUD's customers.

The available supply shown in the attached table (Enclosure 3) was derived from EBMUD's hydrologic model with the following assumptions:

- EBMUD Drought Planning Sequence is used for 1976, 1977 and 1978.
- Total system storage is depleted by the end of the third year of the drought.
- EBMUD will implement its Drought Management Program when necessary.
- The diversions by Amador and Calaveras Counties upstream of Pardee Reservoir increase over time.
- Releases are made to meet the requirements of senior downstream water right holders and fishery releases are made according to the JSA.
- Dry-year supply of CVP water, through the FRWP, is available beginning in 2010.

As discussed under the Drought Management Program section in Chapter 3 of the UWMP, EBMUD's system storage generally allows it to continue serving its customers during dry-year events. EBMUD imposes rationing based on the projected storage available at the end of September. By imposing rationing in the first dry year of potential drought periods, EBMUD attempts to minimize rationing in subsequent years if a drought persists while continuing to meet its current and subsequent-year fishery flow release requirements and obligations to downstream agencies. Table 3-1 in the UWMP summarizes the Drought Management Program guidelines for consumer water reduction goals based on projected system storage.

In the table (Enclosure 3), "Single Dry Water Year" (or Year 1 of "Multiple Dry Water Years") is determined to be a year that EBMUD would implement Drought Management Program elements at the "moderate" stage with the goal of achieving a reduction between 0 to 15 percent in customer demand. Through the FRWP, the supplemental dry-year supply of CVP water will be used to reduce the rationing goal to 5 percent during the first year of a drought. Year 2 of Multiple Dry Years is determined to be a year that EBMUD would implement Drought Management Program elements at the "severe" stage with the goal of achieving between 15 to 25 percent reduction in customer demand. In Year 3 of the multiple-year drought, under current conditions (2005) and prior to the completion of the FRWP, EBMUD customers could experience deficiencies of up to 56 percent. After the completion of the FRWP, water supply deficiencies could range from about 26 percent in year 2010 to about 37 percent in year 2030. Therefore, a supplemental supply is needed, which is defined by EBMUD as the additional amount of water necessary to limit customer deficiency to 25 percent in a multiple-year drought while continuing to meet the requirements of senior downstream water right holders and the provisions of the 1998 JSA.

Supplemental Water Supply and Demand Management

The goals of meeting projected water needs and increased water reliability rely on three components: supplemental supply, water conservation and recycled water.

Chapter 2 of the UWMP describes EBMUD's supplemental water supply project alternatives to meet its long-term water demand. To address the need for a supplemental water supply during droughts, EBMUD signed a contract in 1970 with the Federal government for a supplemental supply from the CVP. In 2001, EBMUD certified the environmental documentation amending its CVP contract 14-06-200-5183A, reducing EBMUD's contract from 150,000 acre-feet (AF)/year to an entitlement not to exceed 133,000 AF in any one year or 165,000 AF over any three consecutive years. In 2001, EBMUD signed a Memorandum of Agreement with the City of Sacramento, the County of Sacramento and the U.S. Bureau of Reclamation to study a joint regional water project on the Sacramento River near Freeport.

The Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) of the FRWP identifies several regulatory permits and approvals required for the implementation of the project alternatives. These are listed in Table 2-6 of the FRWP Draft EIR/EIS, July 2003, and incorporated in the Final EIR/EIS for the project, which was certified in April 2004. The approvals for FRWP have been obtained. EBMUD will still face water supply shortages even with the additional dry-year supply provided by the FRWP; however, the frequency and severity of customer rationing during drought periods will be reduced.

Chapter 2 of the UWMP also describes other supplemental water projects, including the development of groundwater storage within EBMUD's service area. EBMUD is studying the environmental impacts of these proposed projects. Specific capital outlay and financing information for these projects are included in EBMUD's FY06-07 Capital Improvement Program and Five-Year Plan. The FRWP would also allow for a future groundwater conjunctive use component and, along with the proposed local groundwater projects, emergency interties and planned water recycling and conservation efforts, would ensure a reliable water supply to meet projected demands for current and future EBMUD customers within the current service area. Without a supplemental water supply source, beyond the FRWP, and despite continued conservation efforts and further use of recycled water, deficiencies in supply are projected as noted above.

The MacArthur Transit Village Project presents an opportunity to incorporate water conservation measures. Conditions of approval for the implementation of the MacArthur Transit Village Project should require that the project comply with the Landscape Water Conservation Section, Article 10 of Chapter 7, of the Oakland Municipal Code. EBMUD staff would appreciate the opportunity to meet with project sponsors to discuss water conservation programs and best management practices applicable to such projects. A key objective of these discussions will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the project.

The MacArthur Transit Village Project is not a potential candidate for recycled water. The project has a minimal irrigation demand, and providing recycled water for toilet flushing in the structures would be prohibitively expensive. The project sponsor should contact David J. Rehnstrom, Senior Civil Engineer, at (510) 287-1365 for further information.

Sincerely,

David J Rehnstrom

FOR William R. Kirkpatrick
Manager of Water Distribution Planning Division

WRK:NJR:sb
sb07_230a.doc

Enclosures: 1. Revised Letter of Request for Water Supply Assessment dated August 16, 2007
2. EBMUD's 2005 Urban Water Management Plan
3. EBMUD's Demand and Supply Projections Table

cc: Board of Directors w/o Enclosure 2

Enclosure 1

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA OAKLAND, CALIFORNIA 94612-2033

Community and Economic Development Agency
Planning & Zoning Services Division

(510) 238-3015
FAX (510) 238-3691
TDD (510) 839-3254

REVISED August 16, 2007
June 26, 2007

Mr. David Rehnstrom
East Bay Municipal Utility District
Water Distribution Planning Division
375 11th Street, Ms 701
Oakland, CA 94612

Subject: Request for Confirmation of Water Supply Assessment for the proposed MacArthur Transit Village Project, Oakland (ER060004)

Dear Mr. Rehnstrom:

Per amendments to Section 10912 of the Water Code implemented by Senate Bill 610, the City of Oakland is submitting this request to the East Bay Municipal Utility District (EBMUD) to prepare a water supply assessment. The assessment is required in order to determine whether adequate water supply is available to meet the projected water demand of the proposed MacArthur Transit Village project. A Notice of Preparation for an Environmental Impact Report (EIR) was sent to you on June 13, 2007 with a request for comments on the scope of the EIR.

The approximately 8.4-acre site is located in North Oakland, within the block that is bound by 40th Street, Telegraph Avenue, West MacArthur Boulevard, and Highway 24. The proposed project would include five buildings with up to 675 high-density multi-family housing units, up to 39,000 square feet of ground-floor retail/flex space (part of live/work space) and 5,000 square feet of neighborhood serving retail, 5,000 square feet of community space, and associated parking and public infrastructure improvements. Project construction is anticipated to begin in 2008-2009.

The City respectfully requests that EBMUD prepare a water supply assessment for the proposed project as described in the Notice of Preparation, a copy of which has been enclosed. The City acknowledges that this request for an assessment is a required part of the environmental documentation for the project. We appreciate your prompt response to this request.

Please contact me if you need additional information. I can be reached at 510-238-6281 or by email at gpatton@oaklandnet.com.

Sincerely,

Gary Patton
Deputy Director, Planning and Zoning
City of Oakland Community and Economic Development Agency

cc: Theresa Bravo, LSA Associates, Inc.

Enclosure: MacArthur Transit Village Project Notice of Preparation

Enclosure 3

EAST BAY MUNICIPAL UTILITY DISTRICT DEMAND AND SUPPLY PROJECTIONS
(Ref: Table 4-2, UWMP 2005 – EBMUD)

	2005	2010	2015	2020	2025	2030
PROJECTED DEMAND (MGD)						
Customer Demand(1)	241	258	267	277	279	281
Adjusted for Conservation(2)	(13)	(21)	(27)	(35)	(35)	(35)
Adjusted for Recycled Water(2)	(6)	(12)	(14)	(14)	(14)	(14)
Planning Level of Demand	**222**	**225**	**226**	**228**	**230**	**232**
PROJECTED AVAILABLE SUPPLY & NEED FOR SUPPLEMENTAL SUPPLY (3) (MGD)						
Normal Water Year	>222	>225	>226	>228	>230	>232
Supplemental Supply Need	0	0	0	0	0	0
Single Dry Water Year (Multiple Dry Years – Year 1)						
Available Supply	211	213	215	217	219	220
Deficiency (Goal is 5% maximum(4))	5%(5)	5%	5%	5%	5%	5%
Supplemental Supply Need (6)	69	0	0	0	0	0
Multiple Dry Water Years – Year 2						
Available Supply	167	168	170	171	173	174
Deficiency (Goal is 25% maximum(7))	25%	25%	25%	25%	25%	25%
Supplemental Supply Need (6)	40	0	0	0	0	0
Multiple Dry Water Years – Year 3						
Available Supply	43	167	166	153	151	147
Deficiency (Goal is 25% maximum(7))	56%	26%	27%	33%	34%	37%
Supplemental Supply Need (To limit deficiency to 25%(6))	15	1	4	18	22	27
Three-Year Drought						
Total Supplemental Supply Need (To limit deficiency to 25%(6))	**124 (8)**	**1**	**4**	**18**	**22**	**27**

(1) Projected Demand derived from the 2000 Demand Study, which projects water demand based on land use in EBMUD's service area.
(2) Conservation and recycled water program savings reported are based on the 1993 Updated Water Supply Management Plan (WSMP). WSMP set a conservation program savings goal of 33 MGD and a recycled water program savings goal of 14 MGD for the year 2020. Since the adoption of the WSMP the conservation savings goal has increased to 35 MGD to offset demand from anticipated annexations to EBMUD's service area. Conservation and recycled water savings goals are to be upheld through 2030. Reference Chapter 5 and Chapter 6 for details.
(3) Projected Supply data includes dry-year supply deliveries from the Freeport Regional Water Project (FRWP) beginning in 2010. Without the FRWP supply 2020 deficiencies could be as high as 67%, as discussed in the UWMP 2000.
(4) Per 2003 FRWP EIR, rationing goal is set to 5% during the first year of all droughts.
(5) In 2005 and prior to the completion of the FRWP, EBMUD's water supply system is inadequate to supply 95% of demand, and may impose customer rationing up to 15% during the first year of a drought, resulting in a need for additional water.
(6) The supplemental supply need is based on EBMUDSIM model results. It is the amount of water needed to limit customer rationing to 5% during the first year of a three-year drought and 25% during the second and third year of a three-year drought; to implement all provisions of the 1998 Joint Settlement Agreement, and to offset additional water supply system losses created by a supplemental supply. The actual need will be dependent on antecedent conditions, the severity of the actual drought, and on how much supplemental supply is obtained during the first two years of the drought and added to storage for use in subsequent years.
(7) Assumed drought conditions, per Table 3-1 (Chapter 3).
(8) An additional 15 MGD is needed in the third year if a supplemental supply is obtained in year 1 and year 2. If a supplemental supply is not available during years 1 and 2 of the drought, total system storage could be drawn down to meet 95% of demand in the first year and 75% in the second year, creating a greater storage deficit and a greater supplemental supply need in the third year.

APPENDIX E

LAND USE DATABASE AND CUMULATIVE GROWTH SCENARIO MEMORANDUM

HAUSRATH
ECONOMICS
GROUP

MEMORANDUM

Date: October 30, 2007

To: MacArthur Transit Village Project EIR Team
City of Oakland

From: Linda Hausrath

Subject: **Background and Methodology for Preparing Revised Land Use Database for Use in *MacArthur Transit Village Project EIR* Transportation Analyses, July 2007**

This memorandum describes the cumulative growth scenario and land use database revised as of July 2007 for use in transportation impact analysis in the *MacArthur Transit Village Project EIR*. The database provides the future cumulative development context for Oakland, identified in terms of future employment, households, population, and other variables as needed for input to the new Alameda County Congestion Management Agency's (ACCMA's) Countywide Travel Demand Model released in early 2007.

Background and the need for a revised scenario are explained below, followed by description of the approach and methodology. The revised scenario for areas surrounding the MacArthur project is then presented along with tables summarizing citywide totals.

BACKGROUND AND NEED FOR REVISED SCENARIO

<u>Oakland's Cumulative Growth Scenario and Land Use Database</u>

Since 2000, the City of Oakland has developed and maintained a cumulative growth scenario and land use database primarily for use in cumulative transportation analyses for Oakland EIRs. Oakland's growth scenario is developed using a forecast-based approach, *i.e.*, an approach based on regional forecasts of economic activity and demographic trends. The ABAG projections provide the citywide and regional economic and demographic inputs. The scenario also incorporates extensive local information and input regarding the locations for growth and change within the city including lists of approved, proposed, probable, and potential development projects, sites, and plans. The latter provide specificity about growth and development in Oakland for use in allocating growth to subareas and traffic analysis zones (TAZs) within the city. Transportation analyses using the ACCMA's travel demand model require inputs at the TAZ level.

The Oakland growth scenario was originally prepared in 2000 after analyses indicated that the growth projections from ABAG as incorporated into the ACCMA travel demand model did not reflect the level of growth and development occurring in Oakland. Those projections also did not reflect the locations of growth for future development projects under construction, approved, proposed, and reasonably foreseeable in Oakland. Since the Oakland scenario was originally developed, it continues to be updated and refined to incorporate new project data/information, new projections, and changing trends. As of the most recent update in June 2006, the level of growth reflected by the Oakland scenario was similar to that under the ABAG projections for Oakland. However, Oakland's cumulative growth scenario provided more local specificity and accuracy about the locations and types of growth and development occurring throughout the city. Thus, the Oakland scenario and land use database continued to be used in EIR analyses.

New ACCMA Model and Land Use Database Released in Early 2007

In early 2007, the ACCMA released a new countywide travel demand model, incorporating a new land use database. The new land use database reflects the ABAG *Projections 2005*, and is the first time that the ACCMA model incorporates ABAG's policy-based regional Smart Growth forecast. The new land use database also extends out further into the future and includes new future analysis years (2015 and 2030 compared to 2010 and 2025 in the earlier model). In addition, the new model includes a new TAZ system and many more variables in the land use database compared to the earlier model. As a result of all of the changes, the Oakland scenario and land use database could not be readily converted and expanded for the new system without substantial additional work.

When preparing the ABAG *P2005* data for use in the new model, the ACCMA provided initial TAZ-level land use allocations to local jurisdictions for review and comment. However, prior to completing Oakland's review, a detailed examination of the new ACCMA TAZ system was required to identify and review the correlations between the existing TAZ system (also used for the Oakland growth scenario), the new ACCMA TAZ system, and Census blocks (providing the base year 2000 data for TAZs). Problems and needed revisions to the Census block correspondences and to the new TAZ boundaries were identified, and changes were made as part of a joint effort involving Hausrath Economics Group (HEG) for the City of Oakland and ACCMA consultants for the model update. That effort ended up requiring a substantial amount of work given the large number of TAZs and Census blocks in Oakland.

Following the examination of Oakland TAZs and correspondences, HEG developed base year land use data for 2000 and 2005, allocated to the new TAZ system for the new ACCMA model. Those allocations were based on the 2000 Census data and the Oakland cumulative growth scenario which already included a 2000 base year developed from the Census data. The revised 2000 and 2005 TAZ-level data for Oakland were then submitted to the ACCMA for use in the new model.

As a next step, HEG reviewed the ACCMA year 2015 and 2030 land use data for Oakland and identified problems with the accuracy of the allocations of growth to TAZs throughout the city. However, the detailed work required to revise the 2015 and 2030 TAZ projections could not be done within the timeframe established by the ACCMA. The ACCMA decided to proceed without Oakland's future year inputs, and ACCMA consultants made some adjustments to the initial Oakland allocations. The Oakland totals also were adjusted to maintain countywide totals after accounting for inputs from other jurisdictions. The adjusted ACCMA land use data for Oakland for 2015 and 2030 were not reviewed by HEG or City of Oakland staff.

<u>Evaluation of New ACCMA Model Land Use Data</u>

As the MacArthur Transit Village Project was the first Oakland project required to use the new ACCMA travel demand model for EIR transportation analysis, the final ACCMA land use database in the model was reviewed and evaluated in light of Oakland's inputs to the ACCMA, the Oakland growth scenario and database, related analyses, and the most recent local data/information on development projects/plans. The following highlight the findings of that evaluation.

- ***Total Amount of Growth, Citywide.***

  Oakland's growth scenario and ABAG *Projections 2005* include similar, total amounts of growth in Oakland through 2025. Oakland's scenario totals for households in Oakland by 2025 are very similar to and slightly higher than ABAG's *Projections 2005* for Oakland in 2025, and the employment totals for 2025 are a little lower, and fall within two percent of the ABAG forecast. Oakland's cumulative scenario already reflects local Smart Growth land use policies as set forth in the City's *General Plan* Land Use and Transportation Elements.

  The ACCMA/ABAG *P2005* data now extend further out into the future to 2030 (the earlier ACCMA model and the Oakland scenario extend to 2025). The ABAG projections include substantial additional growth in Oakland over the long term, reflecting a regional shift of growth to the major cities in the Bay Area, including Oakland (as well as San Francisco and San José).

- ***Locations for Growth Within Oakland.***

  The evaluation found that the allocations of growth within Oakland as reflected in the new ACCMA land use database for 2015 and 2030 do not accurately reflect the locations where growth is occurring and anticipated to occur in the future. Comparisons of the TAZ-level ACCMA land use data aggregated into planning areas in Oakland identified differences in the distribution of growth among planning areas throughout the city when compared to the Oakland growth scenario. More detailed comparisons, focusing on TAZs within North Oakland surrounding the MacArthur project, indicated that the ACCMA TAZ data did not reflect the locations of actual development projects, proposals, and opportunity sites in the area. The review raised concerns about the accuracy of using the new ACCMA data for intersection-level analyses that are dependent on the land use assumptions for surrounding TAZs.

- ***Base Year 2000 and Year 2005.***

  Oakland had developed base year 2000 and year 2005 land use data allocated to the new TAZ system in the new ACCMA model. Those data are included in the new model's land use database for the most part.[1] As a result, the data in the new ACCMA model for 2000 and 2005 are consistent with the Oakland growth scenario, in terms of both the citywide totals and the TAZ-level allocations. Thus, the differences in the data for future years reflect differences in the allocations of the growth, not in the base year data to which the growth is added.

Overall, the evaluation summarized above identified that in the aggregate, the new ACCMA land use database for Oakland is consistent with *citywide* growth levels from the ABAG projections and could be appropriate for larger-area, regional analyses such as transportation analyses focused on the major freeways and regional routes. However, use of the new ACCMA land use data for *local-area* analyses such as intersection-level and project area analyses could be problematic because the distribution of growth within Oakland does not accurately reflect where growth and development is occurring or is anticipated to occur in the future.

Based on this evaluation, it was concluded that additional work was needed to revise and refine the new ACCMA land use projections for areas surrounding the MacArthur project and in the vicinity of the study intersections for the project's transportation analysis. The additional work was intended to review the growth allocated to these areas and to revise the TAZ-level distributions of growth so as to reflect the locations of actual development projects, proposals, plans, and opportunity sites/areas, consistent with local development trends and the City's *General Plan* Land Use, Transportation, and Housing Elements.

METHODOLOGY FOR REVISING LAND USE DATABASE

The new ACCMA land use data were reviewed and revised for the study area surrounding the MacArthur Transit Village Project, following the methodology described below. The work was done by Hausrath Economics Group, with inputs from the transportation consultants, the EIR consultants, and City of Oakland staff. The steps involved included the following:

- The study area was defined to include TAZs in areas surrounding the MacArthur Transit Village Project and surrounding the intersections to be analyzed in the transportation analysis.

- Adjustments were made to the base year 2000 and 2005 data for two study area TAZs to reflect the Oakland scenario and the Census data.

[1] Review identified a small number of cases where the TAZ data in the final ACCMA model are not the same as those submitted by Oakland. The small differences occur in two TAZs in 2000 and four TAZs in 2005.

- Information/data on development projects, proposals, plans, and trends in the study area were updated, combining project lists and assumptions from Oakland's most recent growth scenario (June 2006) with updated information from City records/staff.

- Adjustments, reallocations, and new allocations of growth to study area TAZs were done for the 2015 and 2030 analysis years in the new model, incorporating the locally-specific information/data about future growth and development. The proposed MacArthur project was incorporated into the database, assuming full development and occupancy by 2015.

- Study area totals were monitored so as to maintain citywide totals that are consistent with the ABAG *Projections 2005* for Oakland (consistency measured as within one percent of the ABAG projections for households and jobs in Oakland, as directed by the ACCMA).

- The revised/reallocated projections for study area TAZs were reviewed and finalized for households and employment for the future analysis years.

- Additional demographic variables needed for the new ACCMA model were derived for study area TAZs as a function of the revised household projections and TAZ ratios per household calculated from the ACCMA land use database. The variables for households in single family dwelling units and households in multi-family dwelling units were created based on local information for the types of housing being built in the study area.

- A revised citywide database with land use inputs for the ACCMA model was then created to include:

    - the revised/reallocated land use data for TAZs in the study area; and

    - the ACMA data (as-is) for TAZs in the rest of the city.

The result of the work described above was a revised land use database for use in the new ACCMA travel model that included revised/reallocated land use data for areas surrounding the MacArthur project and the intersections analyzed in the EIR transportation analysis.

REVISED LAND USE DATA FOR STUDY AREA SURROUNDING THE MACARTHUR PROJECT

The revised land use data for the study area including and surrounding the MacArthur Transit Village Project are summarized in Table 1 below. The scenario includes the MacArthur project, assuming it is fully developed by 2015.

TABLE 1
REVISED CUMULATIVE SCENARIO FOR STUDY AREA SURROUNDING THE MACARTHUR TRANSIT VILLAGE PROJECT, JULY 2007

	2000	2005	2015	2030	Growth, 2005-2030
Employment/Jobs	28,940	30,340	33,210	38,230	+7,890
Households	27,470	27,970	31,290	36,160	+8,190
Household Population	56,820	58,650	64,900	74,920	+16,270
Total Population	58,070	60,040	66,380	76,410	+16,370
Employed Residents	31,340	30,500	36,480	45,270	+14,770

NOTE: A map outlining the surrounding area is included in Figure 1 at the end of this memo. It includes North Oakland and parts of West Oakland and Downtown/Oakland Central, south of I-580 to Grand Avenue between San Pablo Avenue to the west and Harrison Street to the east.

Source: Updated Land Use Database for MacArthur Transit Village Project Analysis, July 2007; Hausrath Economics Group, based on approach and methodology described in this memo.

A map outlining the study area and identifying the TAZs within the area is presented in Figure 1 at the end of this memo. The study area includes North Oakland and parts of West Oakland and Downtown/Oakland Central, south of I-580 to Grand Avenue between San Pablo Avenue on the west and Harrison Street on the east.

Table 4 (parts a through f) presented at the end of this memo, provides the estimates and projections for traffic analysis zones (TAZs) and districts/subareas within the study area.

Table 5 (parts a and b) at the end of this memo, lists the development projects and other assumptions identified for the study area based on input from the City of Oakland and the EIR consultants as well as other sources. The table has two parts, one listing housing projects and development assumptions (part a) and the other listing commercial/industrial developments and other changes (part b). The lists include major projects under construction, approved and proposed projects, potential projects under consideration and anticipated to be developed in the future, as well as other possible developments and changes within the analysis timeframe. In most cases, the project assumptions identified on the lists describe the new development; they do not identify existing uses and activities on development sites that would be removed for development, although the latter are accounted for in the cumulative scenario and land use database.

The projects on the lists all "fit" within the revised land use database summarized herein and used for the cumulative transportation analyses for the *MacArthur Project EIR*. The scenario also includes other changes in land use and in employment and population besides those associated with development of projects on the lists. Thus, the lists alone do not directly equate to the changes over time in the growth scenario.

The *amounts* of employment and household growth reflected by the revised land use database, and those represented by the projects on the lists, are more important than the specific projects identified. It is to be expected that the projects on the lists will change over time, and some will be added while others will be deleted. The lists reflect the best information at the time of the analysis. The growth scenario and land use database can remain valid as changes occur over time in the specifics of the development projects anticipated.

CITYWIDE SCENARIO AS REVISED

The revised citywide cumulative scenario for Oakland is summarized in Table 2 on the next page. The citywide totals in Table 2 include the revised land use data for the study area surrounding the MacArthur project and the new ACCMA land use data (as-is) for the rest of the city. The analysis years shown are those in the new ACCMA travel model.

COMPARISON WITH ABAG/ACCMA PROJECTIONS

The revised citywide scenario for Oakland is compared in Table 3 (on page 9) with the ABAG *Projections 2005* for Oakland. Comparison between the two shows that the revised scenario is consistent with and within one percent of the ABAG projections, as directed by the ACCMA.

Table 3 also identifies the totals for the land use database originally included in the new ACCMA model (before the Oakland revisions). Those totals are similar to or slightly higher than the revised Oakland totals resulting from the efforts described herein (as of July 2007). Citywide differences reflect the differences for the study area, after incorporating locally-specific data and information, as described in this memo.

In addition, for comparison and context, Table 3 also includes totals for Oakland's most recent cumulative growth scenario (as of June 2006) and for the more recent ABAG *Projections 2007* forecast (not yet used for ACCMA model analyses).

TABLE 2
REVISED CITYWIDE SCENARIO FOR OAKLAND, JULY 2007

	2000	2005	2015	2030	Growth 2005-2030
Households	150,790	154,730	169,560	195,450	+40,720
Household Population	392,270	406,780	438,970	501,730	+94,950
Total Population	399,300	414,880	447,430	510,680	+95,800
Employed Residents	178,700	176,040	207,160	257,560	+81,520
Total Employment	198,180	208,720	236,250	277,390	+68,670
Mfg., Wholesale, Agric. /a/	23,190	23,200	29,080	34,390	+11,190
Other /b/	67,410	71,190	71,850	73,780	+2,590
Retail	22,900	24,430	30,340	39,170	+14,740
Services	84,680	89,900	104,980	130,050	+40,150

NOTE: The cumulative scenario shown above is based on and consistent with ABAG *Projection 2005* for Oakland. The citywide totals are the sum of traffic zone (TAZ) level data for Oakland as described further in this memo.

/a/ Includes employment in manufacturing, wholesale trade, agriculture, and mining.
/b/ Includes employment in finance, insurance, real estate (FIRE); government; construction; and transportation, communications, and utilities.

Source: Alameda County CMA Land Use Database in 2007 Countywide Travel Model and Revised Scenario for the Study Area surrounding the MacArthur Transit Village Project, as described in this memo.

TABLE 3
SUMMARY OF CUMULATIVE PROJECTIONS FOR THE CITY OF OAKLAND

	2000	2005	2010	2015	2020	2025	2030	2035
HOUSEHOLD PROJECTIONS								
City of Oakland Cumulative Growth Scenario 6/06 /a/	150,790	154,728	165,913	-	183,003	186,668	-	-
ABAG *Projections 2005*	**150,790**	**154,330**	**160,390**	**168,380**	**176,810**	**185,670**	**195,690**	**-**
ACCMA Model/ABAG *P2005*	**150,790**	**154,728**	**-**	**168,726**	**-**	**-**	**195,912**	**-**
As Revised 7/07 /b/	**150,790**	**154,728**	**-**	**169,562**	**-**	**-**	**195,448**	**-**
ABAG *Projections 2007*	150,790	154,580	159,610	168,910	177,440	187,420	197,390	207,250
EMPLOYMENT PROJECTIONS								
City of Oakland Cumulative Growth Scenario 6/06 /a/	198,180	207,637	223,448	-	-	259,991	-	-
ABAG *Projections 2005*	**199,470**	**207,100**	**223,490**	**235,030**	**250,260**	**265,700**	**279,340**	**-**
ACCMA Model/ABAG *P2005*	**198,601**	**209,269**	**-**	**237,214**	**-**	**-**	**281,238**	**-**
As Revised 7/07 /b/	**198,180**	**208,724**	**-**	**236,245**	**-**	**-**	**277,385**	**-**
ABAG *Projections 2007*	199,470	202,570	218,350	231,250	243,100	258,390	273,600	285,600

/a/ Most recent City of Oakland Cumulative Growth Scenario, as updated June 2006 for Downtown Project Transportation Analyses and EIRs.
/b/ Revised for study area surrounding MacArthur Transit Village Project as described in this memo. Revised projections are within 1% of citywide totals from ABAG *P2005* projections, per ACCMA direction.

Source: Hausrath Economics Group

FIGURE 1
Boundaries of Study Area Surrounding the MacArthur Transit Village Project

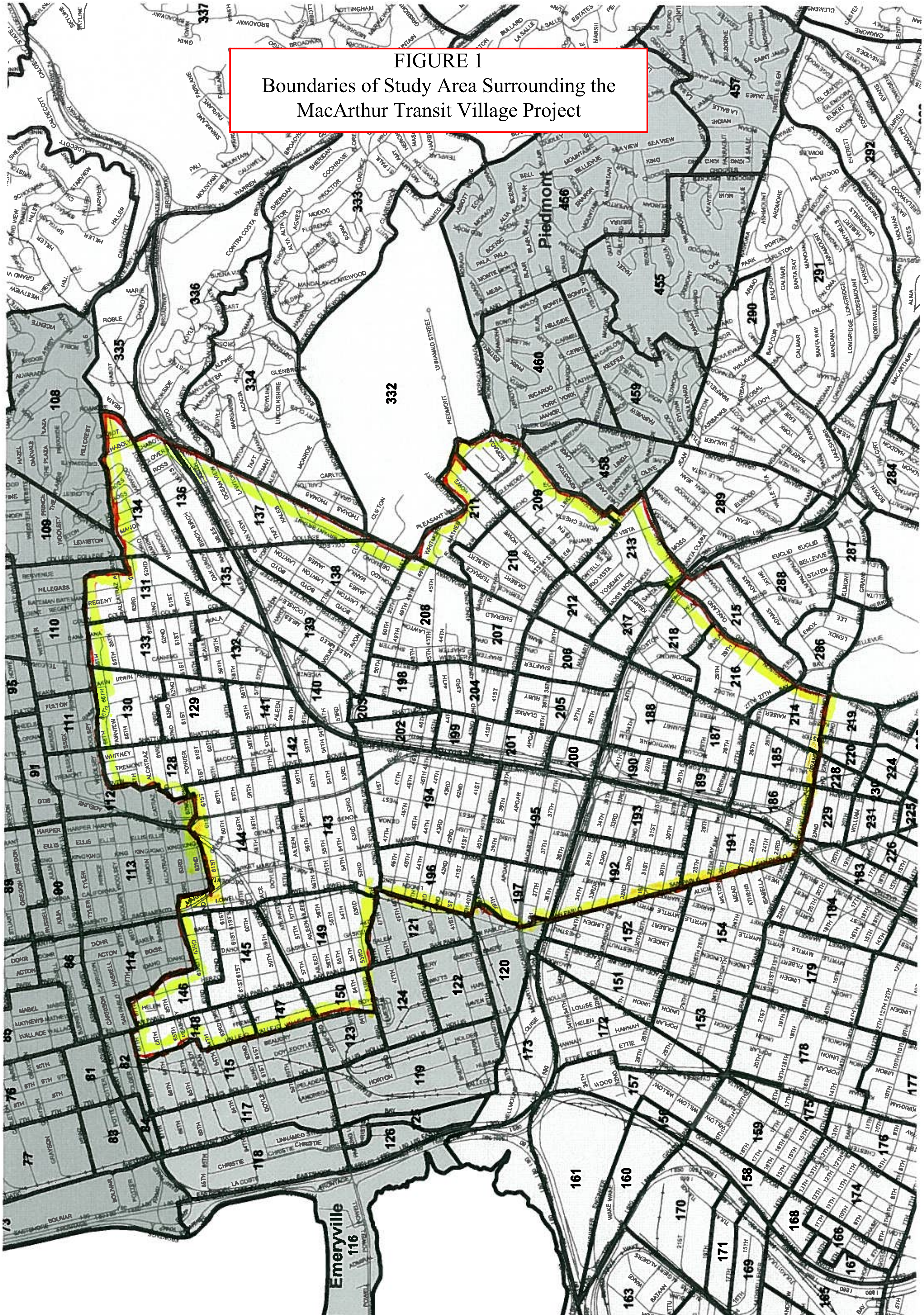

Table 4a: 2000 OAKLAND ACCMA DATA REVISED FOR MACARTHUR PROJECT STUDY AREA, JULY 2007

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
NORTH OAKLAND																					
Broadway / MacArthur BART / Kaiser / North Auto Row / 51st / Piedmont Ave.																					
198	460	401100	271	564	564	410	132	139	146	69	40	16	78	321	352	86	171	95	0	0	0
199	732	401100	109	262	262	132	27	82	59	28	16	6	36	149	75	49	7	7	0	0	12
200	733	401100	79	149	149	81	20	59	43	20	12	4	21	85	112	10	31	71	0	0	0
201	457	401100	180	315	342	193	44	136	97	46	27	10	47	195	265	46	103	109	0	0	7
202	458	401100	158	395	395	196	38	120	85	40	23	10	55	225	53	16	25	8	0	0	4
203	458	401100	40	94	94	51	9	31	22	10	6	2	13	53	271	109	60	75	0	0	27
204	49	401100	440	826	826	571	129	311	237	112	65	26	115	470	246	30	86	80	0	30	20
205	459	401100	664	1385	1385	875	164	500	357	169	98	40	192	788	241	24	136	48	0	20	13
206	731	401200	317	595	610	341	102	215	116	71	88	42	71	325	898	65	692	93	0	4	44
207	730	401200	392	724	772	513	164	228	143	88	109	52	90	411	428	165	175	66	0	22	0
208	55	401200	491	1050	1050	596	330	161	179	110	137	65	123	560	545	4	444	86	0	0	11
217	397	403500	390	704	704	459	61	329	205	105	59	21	71	380	366	22	282	54	0	0	8
212	631	404000	188	300	354	227	47	141	66	59	36	27	19	195	3107	192	2723	167	0	25	0
213	632	404000	1593	2530	2530	1797	173	1420	560	501	306	226	138	1393	638	179	325	128	0	2	4
209	466	404100	1642	2449	2529	1534	259	1383	703	391	367	181	147	1261	925	414	373	111	0	14	13
210	757	404100	930	1589	1590	1033	169	761	398	221	208	103	92	793	940	176	559	162	0	16	27
211	54	404100	784	1218	1218	799	259	525	335	187	175	87	71	608	351	70	180	60	0	26	15
		Subtotal	***8668***	***15149***	***15374***	***9808***	***2127***	***6541***	***3751***	***2227***	***1772***	***918***	***1379***	***8212***	***9813***	***1657***	***6372***	***1420***	***0***	***159***	***205***
Rockridge																					
134	756	400200	446	1016	1016	694	305	141	82	70	136	158	100	465	1222	369	509	130	0	181	33
135	38	400200	197	375	379	246	113	84	36	31	60	70	37	173	226	96	76	27	0	11	16
136	38	400200	219	465	517	333	126	93	40	35	67	77	51	237	201	51	150	0	0	0	0
137	463	400300	708	1388	1388	947	452	256	217	144	170	177	125	730	696	223	344	54	0	53	22
138	50	400300	848	1669	1669	1200	508	340	259	172	204	213	151	878	756	344	251	97	0	38	26
139	462	400300	594	1158	1158	810	261	333	182	121	143	148	105	609	360	27	196	115	0	17	5
140	461	400300	345	621	663	417	114	231	106	70	83	86	60	349	292	103	104	42	0	16	27
131	39	400400	742	1471	1471	960	366	376	187	199	200	156	144	810	369	150	153	42	0	22	2
132	434	400400	471	950	950	634	239	232	119	126	127	99	93	523	379	27	249	66	0	15	22
133	433	400400	590	1213	1238	808	295	295	149	158	159	124	121	681	308	57	194	33	0	22	2
		Subtotal	***5160***	***10326***	***10449***	***7049***	***2779***	***2381***	***1377***	***1126***	***1349***	***1308***	***987***	***5455***	***4809***	***1447***	***2226***	***606***	***0***	***375***	***155***
East of Hwy 24 / Children's Hospital																					
128	436	400500	639	1549	1569	880	355	284	279	138	137	85	205	821	161	38	115	4	0	0	4
129	435	400500	263	597	597	353	100	163	115	57	56	35	78	313	174	30	107	33	0	4	0
130	40	400500	631	1265	1265	792	245	386	276	137	135	83	165	662	224	19	137	53	4	11	0
141	41	400600	325	774	774	403	165	160	125	93	68	39	146	342	78	28	41	9	0	0	0
142	437	400600	397	933	933	510	191	206	152	113	84	48	175	412	63	9	42	12	0	0	0
143	438	400700	878	2204	2266	1151	476	402	472	179	164	63	429	905	337	14	219	34	0	44	26
144	42	400700	921	2169	2179	964	414	507	495	188	173	65	412	870	409	24	274	18	22	71	0
194	48	401000	986	2365	2380	1093	555	431	629	199	131	27	543	936	2313	75	2032	104	0	88	14
195	456	401000	644	1671	1689	586	228	416	411	130	86	17	385	664	259	40	156	32	0	22	9
196	454	401000	362	912	912	410	204	158	231	73	48	10	208	359	391	26	70	57	0	213	25
197	455	401000	307	710	710	266	152	155	196	62	41	8	162	279	125	24	51	34	0	5	11
		Subtotal	***6353***	***15149***	***15274***	***7408***	***3085***	***3268***	***3381***	***1369***	***1123***	***480***	***2908***	***6563***	***4534***	***327***	***3244***	***390***	***26***	***458***	***89***
San Pablo Ave. Area																					
145	44	400800	443	1078	1136	517	200	243	228	90	76	49	219	467	219	21	159	28	0	0	11
146	440	400800	526	1309	1309	536	255	271	271	107	90	58	252	539	191	33	142	11	0	5	0
147	442	400800	216	487	487	262	97	119	111	44	37	24	94	200	153	21	43	18	0	22	49
148	441	400800	164	397	446	181	77	87	84	33	28	19	86	184	638	25	182	131	27	196	77
149	47	400900	842	1992	2001	938	433	409	481	164	145	52	372	804	321	4	131	43	0	110	33
150	453	400900	218	455	455	225	114	104	125	43	37	13	84	183	64	0	32	10	0	11	11
		Subtotal	***2409***	***5718***	***5834***	***2659***	***1176***	***1233***	***1300***	***481***	***413***	***215***	***1107***	***2377***	***1586***	***104***	***689***	***241***	***27***	***344***	***181***
North Oakland - TOTAL			**22590**	**46342**	**46931**	**26924**	**9167**	**13423**	**9809**	**5203**	**4657**	**2921**	**6381**	**22607**	**20742**	**3535**	**12531**	**2657**	**53**	**1336**	**630**

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
OAKLAND CENTRAL - Valdez / Summit / South Auto Row (VSA)																					
185	470	401300	190	367	367	139	13	177	145	27	10	8	48	167	556	200	194	126	0	33	3
186	469	401300	423	716	716	231	14	409	323	61	23	16	94	325	349	37	215	50	0	37	10
187	56	401300	240	431	640	258	16	224	183	34	13	10	84	291	1231	199	930	62	0	31	9
188	467	401300	64	107	214	102	5	59	49	9	4	2	28	97	3349	195	3023	76	0	41	14
189	734	401300	153	301	301	104	8	145	117	22	8	6	39	137	149	11	106	24	0	7	1
190	468	401300	275	562	571	238	22	253	210	39	15	11	75	259	114	18	43	15	0	38	0
214	504	403500	137	249	249	129	9	128	72	37	21	7	25	134	1344	203	581	426	0	55	79
216	75	403500	1262	1989	1989	1058	87	1175	663	339	192	68	200	1073	338	78	202	44	0	5	9
218	735	403500	652	1308	1318	861	101	551	342	175	99	36	132	711	162	33	75	51	0	0	3
Oakland Central - TOTAL			***3396***	***6030***	***6365***	***3120***	***275***	***3121***	***2104***	***743***	***385***	***164***	***725***	***3194***	***7592***	***974***	***5369***	***874***	***0***	***247***	***128***
WEST OAKLAND																					
191	57	401400	385	1291	1575	378	97	288	293	54	23	15	425	585	354	16	191	27	0	49	71
192	472	401400	561	1635	1674	481	142	419	427	78	34	22	452	622	241	8	159	55	0	15	4
193	471	401400	542	1523	1523	436	139	403	412	75	32	23	411	566	6	3	3	0	0	0	0
West Oakland - TOTAL			***1488***	***4449***	***4772***	***1295***	***378***	***1110***	***1132***	***207***	***89***	***60***	***1288***	***1773***	***601***	***27***	***353***	***82***	***0***	***64***	***75***
GRAND TOTAL			**27474**	**56821**	**58068**	**31339**	**9820**	**17654**	**13045**	**6153**	**5131**	**3145**	**8394**	**27574**	**28935**	**4536**	**18253**	**3613**	**53**	**1647**	**833**

Table 4b: 2005 OAKLAND ACCMA DATA REVISED FOR MACARTHUR PROJECT STUDY AREA, JULY 2007

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
NORTH OAKLAND																					
Broadway / MacArthur BART / Kaiser / North Auto Row / 51st / Piedmont Ave.																					
198	460	401100	271	574	574	394	132	139	148	68	40	15	70	292	356	86	173	97	0	0	0
199	732	401100	109	267	267	126	27	82	60	27	16	6	33	136	76	50	7	7	0	0	12
200	733	401100	79	152	152	77	20	59	43	20	12	4	19	77	114	10	32	72	0	0	0
201	457	401100	180	321	348	185	44	136	98	45	27	10	43	177	265	46	103	109	0	0	7
202	458	401100	158	402	402	188	38	120	86	39	23	10	49	204	53	16	25	8	0	0	4
203	458	401100	64	153	153	78	9	55	35	16	9	4	19	78	289	120	65	77	0	0	27
204	49	401100	440	841	841	549	129	311	240	110	65	25	103	427	249	30	88	81	0	30	20
205	459	401100	664	1411	1411	841	164	500	363	166	98	37	173	717	244	24	138	49	0	20	13
206	731	401200	317	609	625	329	102	215	118	71	87	41	62	300	599	74	391	82	0	8	44
207	730	401200	392	741	791	494	164	228	146	87	108	51	78	379	431	166	177	66	0	22	0
208	55	401200	491	1075	1076	575	330	161	183	109	135	64	106	516	549	4	448	86	0	0	11
217	397	403500	390	704	704	437	61	329	208	103	58	21	73	336	535	48	442	37	0	0	8
212	631	404000	206	333	394	239	47	159	74	65	39	28	30	185	3968	192	3626	140	0	10	0
213	632	404000	1593	2564	2568	1726	173	1420	571	501	302	219	193	1207	638	179	325	128	0	2	4
209	466	404100	1642	2481	2565	1473	259	1383	715	384	370	173	157	1130	931	415	377	112	0	14	13
210	757	404100	930	1610	1613	992	169	761	405	218	210	97	99	711	950	178	565	164	0	16	27
211	54	404100	784	1234	1235	767	259	525	341	184	177	82	76	544	365	75	187	62	0	26	15
		Subtotal	***8710***	***15472***	***15719***	***9470***	***2127***	***6583***	***3834***	***2213***	***1776***	***887***	***1383***	***7416***	***10612***	***1713***	***7169***	***1377***	***0***	***148***	***205***
Rockridge																					
134	756	400200	446	1038	1038	662	305	141	84	71	129	162	107	449	1266	377	514	131	0	211	33
135	38	400200	197	383	387	235	113	84	37	32	57	71	40	167	228	97	77	27	0	11	16
136	38	400200	219	475	528	318	126	93	41	35	63	80	55	228	203	52	151	0	0	0	0
137	463	400300	708	1407	1408	909	452	256	222	144	169	173	151	632	711	233	348	55	0	53	22
138	50	400300	848	1691	1692	1153	508	340	266	173	202	207	181	759	823	375	286	98	0	38	26
139	462	400300	594	1173	1174	778	261	333	186	121	141	146	126	527	362	27	198	115	0	17	5
140	461	400300	345	629	672	401	114	231	108	70	82	85	72	302	321	104	132	42	0	16	27
131	39	400400	742	1491	1492	922	366	376	71	174	232	265	145	723	372	151	155	42	0	22	2
132	434	400400	471	963	963	609	239	232	45	110	147	169	93	466	383	28	251	67	0	15	22
133	433	400400	590	1229	1255	776	295	295	56	138	185	211	122	608	316	58	199	35	0	22	2
		Subtotal	***5160***	***10479***	***10609***	***6763***	***2779***	***2381***	***1116***	***1068***	***1407***	***1569***	***1092***	***4861***	***4985***	***1502***	***2311***	***612***	***0***	***405***	***155***
East of Hwy 24 / Children's Hospital																					
128	436	400500	639	1570	1591	845	355	284	285	139	130	85	189	757	162	38	116	4	0	0	4
129	435	400500	263	605	605	339	100	163	117	57	54	35	72	288	177	31	109	33	0	4	0
130	40	400500	631	1282	1283	760	245	386	281	137	129	84	152	611	229	20	141	53	4	11	0
141	41	400600	325	784	784	387	165	160	125	92	68	40	118	335	79	28	42	9	0	0	0
142	437	400600	397	945	945	490	191	206	152	113	83	49	143	404	63	9	42	12	0	0	0
143	438	400700	878	2234	2299	1105	476	402	490	175	155	58	396	895	565	14	446	35	0	44	26
144	42	400700	936	2234	2246	941	418	518	522	187	166	61	386	875	621	27	483	18	22	71	0
194	48	401000	987	2399	2416	1051	556	431	458	247	220	62	494	927	2377	75	2095	105	0	88	14
195	456	401000	647	1702	1721	565	228	419	300	162	144	41	352	660	263	40	160	32	0	22	9
196	454	401000	456	1161	1162	495	206	250	211	114	102	29	238	446	293	30	78	57	0	103	25
197	455	401000	307	719	719	255	152	155	142	77	69	19	147	276	125	24	51	34	0	5	11
		Subtotal	***6466***	***15635***	***15771***	***7233***	***3092***	***3374***	***3083***	***1500***	***1320***	***563***	***2687***	***6474***	***4954***	***336***	***3763***	***392***	***26***	***348***	***89***
San Pablo Ave. Area																					
145	44	400800	460	1134	1198	514	203	257	242	93	77	48	201	469	221	21	161	28	0	0	11
146	440	400800	575	1450	1453	562	255	320	302	117	97	59	244	569	188	33	144	11	0	0	0
147	442	400800	216	493	495	251	97	119	114	44	36	22	83	194	154	21	45	19	0	20	49
148	441	400800	210	514	581	222	79	131	110	43	35	22	98	227	616	25	184	123	27	180	77
149	47	400900	842	2020	2030	901	433	409	498	160	136	48	363	769	324	4	134	43	0	110	33
150	453	400900	218	461	462	216	114	104	129	41	35	13	83	175	66	0	34	10	0	11	11
		Subtotal	***2521***	***6072***	***6219***	***2666***	***1181***	***1340***	***1395***	***498***	***416***	***212***	***1072***	***2403***	***1569***	***104***	***702***	***234***	***27***	***321***	***181***
North Oakland - TOTAL			**22857**	**47658**	**48318**	**26132**	**9179**	**13678**	**9428**	**5279**	**4919**	**3231**	**6234**	**21154**	**22120**	**3655**	**13945**	**2615**	**53**	**1222**	**630**

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
OAKLAND CENTRAL - Valdez / Summit / South Auto Row (VSA)																					
185	470	401300	190	371	371	133	13	177	148	26	10	6	50	159	601	255	184	126	0	33	3
186	469	401300	563	963	965	293	14	549	438	78	29	18	130	413	351	48	226	47	0	20	10
187	56	401300	299	542	807	307	16	283	232	41	15	11	109	345	1230	199	929	62	0	31	9
188	467	401300	64	108	217	98	5	59	50	9	3	2	29	93	3306	155	3020	76	0	41	14
189	734	401300	182	362	363	118	8	174	141	25	9	7	49	155	149	11	106	24	0	7	1
190	468	401300	275	568	578	227	22	253	214	38	14	9	78	247	114	18	43	15	0	38	0
214	504	403500	137	249	249	123	9	128	73	36	21	7	26	119	1354	208	586	426	0	55	79
216	75	403500	1262	1990	1990	1009	87	1175	672	334	189	67	206	951	348	83	207	44	0	5	9
218	735	403500	652	1308	1319	821	101	551	347	173	98	34	137	630	169	20	80	66	0	0	3
Oakland Central - TOTAL			***3624***	***6461***	***6859***	***3129***	***275***	***3349***	***2315***	***760***	***388***	***161***	***814***	***3112***	***7622***	***997***	***5381***	***886***	***0***	***230***	***128***
WEST OAKLAND																					
191	57	401400	385	1311	1601	361	97	288	296	52	23	14	400	610	354	16	191	27	0	49	71
192	472	401400	561	1660	1702	460	142	419	431	76	33	21	425	648	241	8	159	55	0	15	4
193	471	401400	548	1564	1565	421	145	403	421	75	32	20	391	596	6	3	3	0	0	0	0
West Oakland - TOTAL			***1494***	***4535***	***4868***	***1242***	***384***	***1110***	***1148***	***203***	***88***	***55***	***1216***	***1854***	***601***	***27***	***353***	***82***	***0***	***64***	***75***
GRAND TOTAL			**27975**	**58654**	**60045**	**30503**	**9838**	**18137**	**12891**	**6242**	**5395**	**3447**	**8264**	**26120**	**30343**	**4679**	**19679**	**3583**	**53**	**1516**	**833**

Table 4c: 2015 OAKLAND ACCMA DATA REVISED FOR MACARTHUR PROJECT STUDY AREA, JULY 2007

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
NORTH OAKLAND																					
Broadway / MacArthur BART / Kaiser / North Auto Row / 51st / Piedmont Ave.																					
198	460	401100	320	685	685	504	132	188	157	86	53	24	138	234	410	123	187	100	0	0	0
199	732	401100	109	270	270	137	27	82	54	29	18	8	54	92	81	53	9	7	0	0	12
200	733	401100	79	153	153	84	20	59	39	21	13	6	31	52	121	10	38	73	0	0	0
201	457	401100	828	1492	1618	922	44	784	407	222	138	61	325	552	298	95	78	118	0	0	7
202	458	401100	207	533	532	267	38	169	102	55	34	16	107	181	77	16	34	23	0	0	4
203	458	401100	64	155	155	85	9	55	31	17	11	5	31	53	337	152	77	81	0	0	27
204	49	401100	440	850	850	594	129	311	216	118	74	32	171	290	265	35	98	82	0	30	20
205	459	401100	683	1466	1466	936	164	519	336	183	114	49	295	500	265	27	154	51	0	20	13
206	731	401200	317	619	633	356	102	215	103	71	95	48	119	197	1187	38	1070	27	0	8	44
207	730	401200	533	1024	1090	727	164	369	173	118	160	82	204	340	460	166	201	71	0	22	0
208	55	401200	491	1092	1090	622	330	161	159	109	148	76	204	340	564	4	452	97	0	0	11
217	397	403500	357	636	636	427	58	299	170	101	63	23	120	200	3696	0	3501	187	0	0	8
212	631	404000	206	335	396	260	47	159	65	65	43	33	74	101	1314	192	970	142	0	10	0
213	632	404000	1628	2636	2639	1919	173	1455	511	513	337	267	492	675	650	185	328	131	0	2	4
209	466	404100	1690	2549	2637	1649	259	1431	645	415	414	216	444	701	947	422	383	115	0	14	13
210	757	404100	930	1607	1611	1079	169	761	355	228	228	119	271	428	1012	225	578	166	0	16	27
211	54	404100	821	1290	1292	874	259	562	313	201	201	105	217	344	403	85	211	66	0	26	15
		Subtotal	***9703***	***17392***	***17753***	***11442***	***2124***	***7579***	***3836***	***2552***	***2144***	***1170***	***3297***	***5280***	***12087***	***1828***	***8369***	***1537***	***0***	***148***	***205***
Rockridge																					
134	756	400200	446	1049	1046	705	305	141	65	61	130	190	175	318	1321	382	522	134	0	250	33
135	38	400200	197	387	390	250	113	84	29	27	57	84	65	119	238	100	83	28	0	11	16
136	38	400200	219	480	532	339	126	93	32	30	64	93	89	162	206	53	153	0	0	0	0
137	463	400300	708	1404	1406	989	452	256	189	143	178	198	250	383	731	242	358	56	0	53	22
138	50	400300	874	1740	1742	1292	508	366	234	177	220	243	310	474	845	386	294	101	0	38	26
139	462	400300	797	1571	1573	1135	261	536	213	161	200	223	281	428	416	40	235	119	0	17	5
140	461	400300	404	735	786	511	112	292	108	82	102	112	139	214	321	102	144	42	0	6	27
131	39	400400	755	1514	1515	1021	366	389	65	171	235	284	288	435	382	156	160	42	0	22	2
132	434	400400	484	988	989	680	239	245	42	110	150	182	188	284	404	34	264	69	0	15	22
133	433	400400	602	1252	1280	861	295	307	52	137	188	225	243	367	327	62	205	36	0	22	2
		Subtotal	***5486***	***11120***	***11259***	***7783***	***2777***	***2709***	***1029***	***1099***	***1524***	***1834***	***2028***	***3184***	***5191***	***1557***	***2418***	***627***	***0***	***434***	***155***
East of Hwy 24 / Children's Hospital																					
128	436	400500	662	1624	1646	952	355	307	255	148	153	106	331	526	165	39	118	4	0	0	4
129	435	400500	263	604	605	369	100	163	101	59	61	42	122	193	183	32	114	33	0	4	0
130	40	400500	631	1280	1281	827	245	386	243	141	146	101	258	410	251	22	161	53	4	11	0
141	41	400600	325	784	784	421	165	160	53	90	100	82	141	267	85	30	46	9	0	0	0
142	437	400600	397	945	945	533	191	206	65	110	122	100	170	321	65	9	44	12	0	0	0
143	438	400700	933	2364	2433	1278	478	455	465	197	194	76	455	805	575	8	482	35	0	24	26
144	42	400700	936	2225	2238	1023	418	518	467	198	194	77	418	741	663	28	524	18	22	71	0
194	48	401000	989	2389	2405	1145	558	431	436	252	233	68	471	833	2500	78	2213	107	0	88	14
195	456	401000	820	2143	2167	779	234	586	362	208	194	56	424	750	299	45	193	42	0	10	9
196	454	401000	502	1271	1271	593	206	296	222	127	118	35	249	440	269	33	91	57	0	63	25
197	455	401000	353	822	822	320	156	197	155	90	83	25	161	285	122	24	58	34	0	0	6
		Subtotal	***6811***	***16451***	***16597***	***8240***	***3106***	***3705***	***2824***	***1620***	***1598***	***768***	***3200***	***5571***	***5177***	***348***	***4044***	***404***	***26***	***271***	***84***
San Pablo Ave. Area																					
145	44	400800	476	1078	1130	578	203	273	224	101	90	61	197	450	221	24	168	29	0	0	0
146	440	400800	618	1431	1423	656	255	363	291	132	117	79	248	567	196	34	151	11	0	0	0
147	442	400800	216	453	451	273	97	119	102	46	41	27	79	180	157	21	47	20	0	20	49
148	441	400800	385	866	971	444	79	306	181	82	74	49	170	386	551	48	226	123	27	80	47
149	47	400900	894	2139	2149	1039	433	461	480	182	171	62	396	692	308	14	148	43	0	70	33
150	453	400900	294	620	620	317	114	180	158	59	57	20	115	199	90	16	53	10	0	0	11
		Subtotal	***2883***	***6587***	***6744***	***3307***	***1181***	***1702***	***1436***	***602***	***550***	***298***	***1205***	***2474***	***1523***	***157***	***793***	***236***	***27***	***170***	***140***
North Oakland - TOTAL			**24883**	**51550**	**52353**	**30772**	**9188**	**15695**	**9125**	**5873**	**5816**	**4070**	**9730**	**16509**	**23978**	**3890**	**15624**	**2804**	**53**	**1023**	**584**

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
OAKLAND CENTRAL - Valdez / Summit / South Auto Row (VSA)																					
185	470	401300	753	1463	1454	557	13	740	558	115	47	33	282	481	506	221	131	118	0	33	3
186	469	401300	563	959	952	311	14	549	417	85	35	25	185	315	366	58	231	47	0	20	10
187	56	401300	299	540	797	325	16	283	221	46	19	13	154	264	1356	268	984	64	0	31	9
188	467	401300	64	108	214	103	5	59	47	10	4	3	42	71	4172	215	3706	196	0	41	14
189	734	401300	356	706	700	245	8	348	264	55	23	14	135	231	96	30	34	24	0	7	1
190	468	401300	275	566	571	240	22	253	204	42	17	12	111	189	114	18	43	15	0	38	0
214	504	403500	684	1228	1228	655	9	675	325	193	120	47	233	386	1411	245	606	426	0	55	79
216	75	403500	1262	1966	1966	1075	87	1175	601	356	221	85	372	618	363	88	217	44	0	5	9
218	735	403500	652	1292	1302	875	101	551	310	184	114	44	247	409	204	63	87	51	0	0	3
Oakland Central - TOTAL			***4908***	***8828***	***9184***	***4386***	***275***	***4633***	***2947***	***1086***	***600***	***276***	***1761***	***2964***	***8588***	***1206***	***6039***	***985***	***0***	***230***	***128***
WEST OAKLAND																					
191	57	401400	385	1307	1593	383	97	288	283	56	28	18	331	590	379	26	206	27	0	49	71
192	472	401400	561	1655	1693	488	142	419	412	82	41	26	352	627	256	8	174	55	0	15	4
193	471	401400	548	1559	1558	447	145	403	403	80	40	25	324	577	6	3	3	0	0	0	0
West Oakland - TOTAL			***1494***	***4521***	***4844***	***1318***	***384***	***1110***	***1098***	***218***	***109***	***69***	***1007***	***1794***	***641***	***37***	***383***	***82***	***0***	***64***	***75***
GRAND TOTAL			**31285**	**64899**	**66381**	**36476**	**9847**	**21438**	**13170**	**7177**	**6525**	**4415**	**12498**	**21267**	**33207**	**5133**	**22046**	**3871**	**53**	**1317**	**787**

Table 4d: 2030 OAKLAND ACCMA DATA REVISED FOR MACARTHUR PROJECT STUDY AREA, JULY 2007

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
NORTH OAKLAND																					
Broadway / MacArthur BART / Kaiser / North Auto Row / 51st / Piedmont Ave.																					
198	460	401100	339	734	733	577	132	207	129	100	74	36	106	224	480	161	209	110	0	0	0
199	732	401100	138	346	344	187	27	111	52	41	30	15	49	105	100	62	19	7	0	0	12
200	733	401100	79	155	155	90	20	59	30	23	17	9	22	47	136	14	44	78	0	0	0
201	457	401100	866	1577	1710	1042	44	822	328	255	188	95	247	523	366	115	121	123	0	0	7
202	458	401100	236	614	612	329	38	198	90	70	51	25	88	187	99	31	43	21	0	0	4
203	458	401100	74	182	180	106	9	65	28	22	16	8	27	55	382	174	93	88	0	0	27
204	49	401100	440	859	858	642	129	311	166	130	96	48	124	262	303	47	134	92	0	10	20
205	459	401100	808	1755	1751	1196	164	644	305	239	175	89	253	535	307	57	159	58	0	20	13
206	731	401200	442	881	897	535	102	340	99	95	158	91	123	273	1179	60	1079	25	0	0	15
207	730	401200	643	1263	1335	946	164	479	143	138	228	135	182	407	544	211	236	86	0	11	0
208	55	401200	664	1509	1497	906	330	334	147	142	236	138	204	457	749	72	547	119	0	0	11
217	397	403500	357	635	634	482	58	299	128	109	83	36	85	171	4431	24	4328	67	0	0	12
212	631	404000	206	337	397	284	47	159	47	63	49	47	47	96	1769	237	1320	202	0	10	0
213	632	404000	1628	2649	2650	2095	173	1455	369	496	388	375	312	638	711	232	331	142	0	2	4
209	466	404100	1690	2564	2649	1800	259	1431	456	421	501	312	304	641	976	435	396	118	0	14	13
210	757	404100	978	1699	1702	1239	169	809	264	244	290	180	195	412	1048	238	599	168	0	16	27
211	54	404100	869	1373	1374	1010	259	610	234	216	258	161	157	333	450	106	231	72	0	26	15
		Subtotal	***10457***	***19132***	***19478***	***13466***	***2124***	***8333***	***3015***	***2804***	***2838***	***1800***	***2525***	***5366***	***14030***	***2276***	***9889***	***1576***	***0***	***109***	***180***
Rockridge																					
134	756	400200	446	1056	1046	749	305	141	41	50	135	220	138	324	1343	386	534	137	0	253	33
135	38	400200	197	390	390	266	113	84	18	22	60	97	51	121	246	102	88	29	0	11	16
136	38	400200	219	483	532	360	126	93	20	24	66	109	70	165	213	55	158	0	0	0	0
137	463	400300	708	1415	1414	1079	452	256	128	134	190	256	178	371	776	266	378	57	0	53	22
138	50	400300	874	1752	1752	1411	508	366	159	166	235	314	221	460	889	410	311	104	0	38	26
139	462	400300	817	1623	1623	1270	261	556	149	155	220	293	205	425	470	49	279	120	0	17	5
140	461	400300	442	811	865	610	112	330	79	83	119	160	109	227	407	122	222	46	0	0	17
131	39	400400	755	1518	1518	1115	366	389	52	161	240	302	192	382	396	163	166	43	0	22	2
132	434	400400	484	990	990	743	239	245	33	104	154	193	125	249	431	35	289	70	0	15	22
133	433	400400	602	1255	1282	941	295	307	41	129	192	241	162	323	354	70	222	38	0	22	2
		Subtotal	***5544***	***11293***	***11412***	***8544***	***2777***	***2767***	***720***	***1028***	***1611***	***2185***	***1451***	***3047***	***5525***	***1658***	***2647***	***644***	***0***	***431***	***145***
East of Hwy 24 / Children's Hospital																					
128	436	400500	662	1622	1642	1039	355	307	182	151	190	139	251	450	169	40	121	4	0	0	4
129	435	400500	263	603	603	403	100	163	72	60	75	56	92	165	191	34	119	34	0	4	0
130	40	400500	631	1278	1278	903	245	386	174	144	181	132	195	350	267	27	172	53	4	11	0
141	41	400600	325	784	784	460	165	160	43	87	104	91	136	211	92	32	51	9	0	0	0
142	437	400600	397	945	945	582	191	206	53	107	127	110	164	255	73	9	52	12	0	0	0
143	438	400700	976	2473	2544	1460	478	498	376	221	261	119	447	714	692	43	588	35	0	10	16
144	42	400700	955	2270	2281	1141	418	537	368	216	255	115	401	640	688	37	558	20	22	51	0
194	48	401000	1065	2507	2520	1345	558	507	433	278	269	85	474	797	2724	93	2446	111	0	60	14
195	456	401000	936	2383	2406	971	234	702	380	245	236	75	452	760	325	70	203	43	0	0	9
196	454	401000	579	1434	1433	746	206	373	235	151	146	47	269	453	237	33	109	57	0	18	20
197	455	401000	420	952	951	414	156	264	170	110	106	34	179	300	124	24	71	24	0	5	0
		Subtotal	***7209***	***17251***	***17387***	***9464***	***3106***	***4103***	***2486***	***1770***	***1950***	***1003***	***3060***	***5095***	***5582***	***442***	***4490***	***402***	***26***	***159***	***63***
San Pablo Ave. Area																					
145	44	400800	533	1204	1260	709	203	330	190	119	126	99	217	356	245	37	186	22	0	0	0
146	440	400800	666	1538	1528	774	255	411	238	149	157	122	263	431	221	44	161	16	0	0	0
147	442	400800	273	571	567	377	97	176	97	61	64	51	97	160	132	29	62	21	0	0	20
148	441	400800	442	992	1109	557	79	363	158	98	104	82	191	313	566	83	266	113	27	40	37
149	47	400900	970	2319	2329	1233	433	537	412	212	243	104	401	654	297	34	173	50	0	20	20
150	453	400900	370	781	781	436	114	256	156	81	93	39	134	219	139	42	83	14	0	0	0
		Subtotal	***3254***	***7405***	***7574***	***4086***	***1181***	***2073***	***1251***	***720***	***787***	***497***	***1303***	***2133***	***1600***	***269***	***931***	***236***	***27***	***60***	***77***
North Oakland - TOTAL			**26464**	**55081**	**55851**	**35560**	**9188**	**17276**	**7472**	**6322**	**7186**	**5485**	**8339**	**15641**	**26737**	**4645**	**17957**	**2858**	**53**	**759**	**465**

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
OAKLAND CENTRAL - Valdez / Summit / South Auto Row (VSA)																					
185	470	401300	945	1960	1867	787	13	932	610	170	89	76	286	667	664	305	210	136	0	13	0
186	469	401300	1085	1972	1878	673	14	1071	701	195	102	87	288	671	433	93	258	52	0	20	10
187	56	401300	707	1363	1928	865	16	691	457	127	66	57	296	689	1416	207	1112	67	0	21	9
188	467	401300	64	115	219	116	5	59	41	12	6	5	34	78	5570	369	5020	126	0	41	14
189	734	401300	452	956	909	348	8	444	291	82	42	37	139	325	141	40	64	29	0	7	1
190	468	401300	361	793	767	354	22	339	234	66	34	28	117	274	154	28	68	20	0	38	0
214	504	403500	1941	3476	3475	2102	9	1932	701	592	450	198	465	935	1632	352	695	461	0	55	69
216	75	403500	1646	2556	2555	1585	87	1559	594	502	381	169	342	687	460	135	257	54	0	5	9
218	735	403500	738	1459	1469	1119	101	637	266	225	171	76	197	395	259	86	109	61	0	0	3
Oakland Central - TOTAL			***7939***	***14650***	***15067***	***7949***	***275***	***7664***	***3895***	***1971***	***1341***	***733***	***2164***	***4721***	***10729***	***1615***	***7793***	***1006***	***0***	***200***	***115***
WEST OAKLAND																					
191	57	401400	501	1650	1975	561	97	404	323	81	50	47	379	701	436	91	233	32	0	29	51
192	472	401400	667	1909	1918	654	142	525	430	109	67	61	368	680	302	29	214	55	0	0	4
193	471	401400	592	1634	1603	544	145	447	381	97	60	53	307	568	30	3	24	3	0	0	0
West Oakland - TOTAL			***1760***	***5193***	***5496***	***1759***	***384***	***1376***	***1134***	***287***	***177***	***161***	***1054***	***1949***	***768***	***123***	***471***	***90***	***0***	***29***	***55***
GRAND TOTAL			**36163**	**74924**	**76414**	**45268**	**9847**	**26316**	**12501**	**8580**	**8704**	**6379**	**11557**	**22311**	**38234**	**6383**	**26221**	**3954**	**53**	**988**	**635**

Table 4e: 2005-2030 OAKLAND ACCMA DATA REVISED FOR MACARTHUR PROJECT STUDY AREA, JULY 2007

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
NORTH OAKLAND																					
Broadway / MacArthur BART / Kaiser / North Auto Row / 51st / Piedmont Ave.																					
198	460	401100	68	160	159	183	0	68	-19	32	34	21	36	-68	124	75	36	13	0	0	0
199	732	401100	29	79	77	61	0	29	-8	14	14	9	16	-31	24	12	12	0	0	0	0
200	733	401100	0	3	3	13	0	0	-13	3	5	5	3	-30	22	4	12	6	0	0	0
201	457	401100	686	1256	1362	857	0	686	230	210	161	85	204	346	101	69	18	14	0	0	0
202	458	401100	78	212	210	141	0	78	4	31	28	15	39	-17	46	15	18	13	0	0	0
203	458	401100	10	29	27	28	0	10	-7	6	7	4	8	-23	93	54	28	11	0	0	0
204	49	401100	0	18	17	93	0	0	-74	20	31	23	21	-165	54	17	46	11	0	-20	0
205	459	401100	144	344	340	355	0	144	-58	73	77	52	80	-182	63	33	21	9	0	0	0
206	731	401200	125	272	272	206	0	125	-19	24	71	50	61	-27	580	-14	688	-57	0	-8	-29
207	730	401200	251	522	544	452	0	251	-3	51	120	84	104	28	113	45	59	20	0	-11	0
208	55	401200	173	434	421	331	0	173	-36	33	101	74	98	-59	200	68	99	33	0	0	0
217	397	403500	-33	-69	-70	45	-3	-30	-80	6	25	15	12	-165	3896	-24	3886	30	0	0	4
212	631	404000	0	4	3	45	0	0	-27	-2	10	19	17	-89	-2199	45	-2306	62	0	0	0
213	632	404000	35	85	82	369	0	35	-202	-5	86	156	119	-569	73	53	6	14	0	0	0
209	466	404100	48	83	84	327	0	48	-259	37	131	139	147	-489	45	20	19	6	0	0	0
210	757	404100	48	89	89	247	0	48	-141	26	80	83	96	-299	98	60	34	4	0	0	0
211	54	404100	85	139	139	243	0	85	-107	32	81	79	81	-211	85	31	44	10	0	0	0
		Subtotal	***1747***	***3660***	***3759***	***3996***	***-3***	***1750***	***-819***	***591***	***1062***	***913***	***1142***	***-2050***	***3418***	***563***	***2720***	***199***	***0***	***-39***	***-25***
Rockridge																					
134	756	400200	0	18	8	87	0	0	-43	-21	6	58	31	-125	77	9	20	6	0	42	0
135	38	400200	0	7	3	31	0	0	-19	-10	3	26	11	-46	18	5	11	2	0	0	0
136	38	400200	0	8	4	42	0	0	-21	-11	3	29	15	-63	10	3	7	0	0	0	0
137	463	400300	0	8	6	170	0	0	-94	-10	21	83	27	-261	65	33	30	2	0	0	0
138	50	400300	26	61	60	258	0	26	-107	-7	33	107	40	-299	66	35	25	6	0	0	0
139	462	400300	223	450	449	492	0	223	-37	34	79	147	79	-102	108	22	81	5	0	0	0
140	461	400300	97	182	193	209	-2	99	-29	13	37	75	37	-75	86	18	90	4	0	-16	-10
131	39	400400	13	27	26	193	0	13	-19	-13	8	37	47	-341	24	12	11	1	0	0	0
132	434	400400	13	27	27	134	0	13	-12	-6	7	24	32	-217	48	7	38	3	0	0	0
133	433	400400	12	26	27	165	0	12	-15	-9	7	30	40	-285	38	12	23	3	0	0	0
		Subtotal	***384***	***814***	***803***	***1781***	***-2***	***386***	***-396***	***-40***	***204***	***616***	***359***	***-1814***	***540***	***156***	***336***	***32***	***0***	***26***	***-10***
East of Hwy 24 / Children's Hospital																					
128	436	400500	23	52	51	194	0	23	-103	12	60	54	62	-307	7	2	5	0	0	0	0
129	435	400500	0	-2	-2	64	0	0	-45	3	21	21	20	-123	14	3	10	1	0	0	0
130	40	400500	0	-4	-5	143	0	0	-107	7	52	48	43	-261	38	7	31	0	0	0	0
141	41	400600	0	0	0	73	0	0	-82	-5	36	51	18	-124	13	4	9	0	0	0	0
142	437	400600	0	0	0	92	0	0	-99	-6	44	61	21	-149	10	0	10	0	0	0	0
143	438	400700	98	239	245	355	2	96	-114	46	106	61	51	-181	127	29	142	0	0	-34	-10
144	42	400700	19	36	35	200	0	19	-154	29	89	54	15	-235	67	10	75	2	0	-20	0
194	48	401000	78	108	104	294	2	76	-25	31	49	23	-20	-130	347	18	351	6	0	-28	0
195	456	401000	289	681	685	406	6	283	80	83	92	34	100	100	62	30	43	11	0	-22	0
196	454	401000	123	273	271	251	0	123	24	37	44	18	31	7	-56	3	31	0	0	-85	-5
197	455	401000	113	233	232	159	4	109	28	33	37	15	32	24	-1	0	20	-10	0	0	-11
		Subtotal	***743***	***1616***	***1616***	***2231***	***14***	***729***	***-597***	***270***	***630***	***440***	***373***	***-1379***	***628***	***106***	***727***	***10***	***0***	***-189***	***-26***
San Pablo Ave. Area																					
145	44	400800	73	70	62	195	0	73	-52	26	49	51	16	-113	24	16	25	-6	0	0	-11
146	440	400800	91	88	75	212	0	91	-64	32	60	63	19	-138	33	11	17	5	0	0	0
147	442	400800	57	78	72	126	0	57	-17	17	28	29	14	-34	-22	8	17	2	0	-20	-29
148	441	400800	232	478	528	335	0	232	48	55	69	60	93	86	-50	58	82	-10	0	-140	-40
149	47	400900	128	299	299	332	0	128	-86	52	107	56	38	-115	-27	30	39	7	0	-90	-13
150	453	400900	152	320	319	220	0	152	27	40	58	26	51	44	73	42	49	4	0	-11	-11
		Subtotal	***733***	***1333***	***1355***	***1420***	***0***	***733***	***-144***	***222***	***371***	***285***	***231***	***-270***	***31***	***165***	***229***	***2***	***0***	***-261***	***-104***
North Oakland - TOTAL			**3607**	**7423**	**7533**	**9428**	**9**	**3598**	**-1956**	**1043**	**2267**	**2254**	**2105**	**-5513**	**4617**	**990**	**4012**	**243**	**0**	**-463**	**-165**

NEW ZONE	OLD ZONE	CENSUS TRACT	TOTHH	HHPOP	TOTPOP	EMPRES	SFHH	MFHH	HH1	HH2	HH3	HH4	AGE0519	AGE2044	TEMP	RETEMP	SEREMP	OTHEMP	AGEMP	MANEMP	WHOEMP
OAKLAND CENTRAL - Valdez / Summit / South Auto Row (VSA)																					
185	470	401300	755	1589	1496	654	0	755	462	144	79	70	236	508	63	50	26	10	0	-20	-3
186	469	401300	522	1009	913	380	0	522	263	117	73	69	158	258	82	45	32	5	0	0	0
187	56	401300	408	821	1121	558	0	408	225	86	51	46	187	344	186	8	183	5	0	-10	0
188	467	401300	0	7	2	18	0	0	-9	3	3	3	5	-15	2264	214	2000	50	0	0	0
189	734	401300	270	594	546	230	0	270	150	57	33	30	90	170	-8	29	-42	5	0	0	0
190	468	401300	86	225	189	127	0	86	20	28	20	19	39	27	40	10	25	5	0	0	0
214	504	403500	1804	3227	3226	1979	0	1804	628	556	429	191	439	816	278	144	109	35	0	0	-10
216	75	403500	384	566	565	576	0	384	-78	168	192	102	136	-264	112	52	50	10	0	0	0
218	735	403500	86	151	150	298	0	86	-81	52	73	42	60	-235	90	66	29	-5	0	0	0
Oakland Central - TOTAL			***4315***	***8189***	***8208***	***4820***	***0***	***4315***	***1580***	***1211***	***953***	***572***	***1350***	***1609***	***3107***	***618***	***2412***	***120***	***0***	***-30***	***-13***
WEST OAKLAND																					
191	57	401400	116	339	374	200	0	116	27	29	27	33	-21	91	82	75	42	5	0	-20	-20
192	472	401400	106	249	216	194	0	106	-1	33	34	40	-57	32	61	21	55	0	0	-15	0
193	471	401400	44	70	38	123	0	44	-40	22	28	33	-84	-28	24	0	21	3	0	0	0
West Oakland - TOTAL			***266***	***658***	***628***	***517***	***0***	***266***	***-14***	***84***	***89***	***106***	***-162***	***95***	***167***	***96***	***118***	***8***	***0***	***-35***	***-20***
GRAND TOTAL			**8188**	**16270**	**16369**	**14765**	**9**	**8179**	**-390**	**2338**	**3309**	**2932**	**3293**	**-3809**	**7891**	**1704**	**6542**	**371**	**0**	**-528**	**-198**

Table 5a
OAKLAND CUMULATIVE GROWTH SCENARIO
ASSUMPTIONS FOR HOUSING PROJECTS IN THE MACARTHUR TRANSIT VILLAGE PROJECT SURROUNDING AREAS
ACCMA/ABAG PROJECTIONS 2005 SCENARIO AS REVISED JULY 2007

/a/	Project	Time Period	Change /b/	New TAZ	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
	PROJECTS COMPLETED 2000 - 2005 (Post Census 2000)												
x	MLK Plaza	1		144	42	42	NO	11	11		Aileen, Dover, and 58th	1	Under construction 7/1/02; completion assumed
O	6100 Adeline St.	1	N	144	42	42	NO	4	4		6100 Adeline St.	1	Approved 2004; 4 s.f. du's; completion assumed
O	Downs Memorial	1	T	145	44	44	NO	17	17		1027 60th St.	1	Predevelopment 7/1/02; funded affordable project; completed 2004
x	Wang/Citizens	1		146	440	440	NO	3	3		1027 62nd St.	4	In DDA negotiations 7/1/02
x	Sister Thea Bowman Manor II	1		146	440	440	NO	47	46		6400 San Pablo Ave.	1	Completed; affordable project
x	Wang/Citizens	1		148	441	441	NO	2	2		62nd St. @ Marshall St.	4	In DDA negotiations 7/1/02
x	Fabco / City Limits - Pulte Homes	1		148	441	441	NO	46	44	LOFT-2	1165, 1249 67th St. near San Pablo Ave.	1	Approved 3/03; under construction 2004; in both Oakland and Emeryville; assumes half of 92 units in Oakland; completed 2/06
x	Wang/Citizens	1		194	48	48	NO	1	1		4100 MLK Jr. Way	4	In DDA negotiations 7/1/02
	West Street Rehab	1		195	456	456	NO	3	3		3927 West Street	1	Completed 2000
x	Bakery Lofts/Remar Lofts	1		196	454	454	NO	30	29	LOFT-2	964/976 46th St.	1	Completed 2002; 30 units in Oak., more in Emeryville
x	Green City Lofts	1		196	454	454	NO	31	30	LOFT-2	1007 41st St. @ Adeline	1	31 units in Oakland; 62 ttl units; Approved 2001/2004; completed 2/06
x	Flecto Project / 40th St. Lofts	1		196	454	454	NO	34	33	LOFT-2	47th + Adeline	2	34 units in Oakland; 79 total units; under construction 3/04
x	Wang/Citizens	1		196	454	454	NO	2	2		938 46th St.	4	In DDA negotiations 7/1/02
C	Temescal Place	1		203	458	458	NO	25	24		Telegraph + 48th	1	Completed 2004
	Piedmont Ave. Lofts	1		212	631	631	NO	19	18		40th & Broadway	1	Completed 2001
	SUBTOTAL - NO							275	267				
	Former Sears	1		186	469	469	OC	53	51	LOFT-2	27th & Telegraph	1	Completed 2003
	Telegraph Gateway	1		186	469	469	OC	50	48	DT-2	2401 Telegraph @ 24th St.	1	Completed 2004
x	Northgate Apartments	1		186	469	469	OC	42	41	DT-2	2301 Northgate (23rd + Northgate)	1	Completed 2004
x	425 28th St. / 427 27th St. / The Midtown	1		187	56	56	OC	20	19	DT-2	27th/28th/Telegraph/Broadway	1	Completed 2004
x	371 30th St.	1		187	56	56	OC	22	21	DT-2	371 30th St.	1	Completed 2003
O	McClure Street Condos	1	N	187	56	56	OC	20	19	DT-2	2941/43 McClure St.	1	Completed 10/2004; HEG estimate of units
K	30th Street Housing	1	N	189	734	468	OC	30	29	DT-2	532-536 30th St.	1	Completed 2005; HEG estimate of units
	SUBTOTAL - OC							237	228				
O	OHA single family homes	1	N	193	471	471	WO	6	6		Area of 32nd St. near MLK Jr. Way	1	Under construction 2003; completed 2004
	PROJECTS COMPLETED 2000 - 2005 TOTAL							**518**	**501**				

/a/	Project	Time Period	Change /b/	New TAZ	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
	PROJECTS TO BE COMPLETED 2005 - 2010												
T	Shattuck Court	2	N	128	436	436	NO	8	8		6535-6557 Shattuck	3	Approved as of 7/07; per F+P list
T	Shattuck Muse	2	N	128	436	436	NO	16	15		6525 Shattuck	3	Approved as of 7/07; per F+P list
T	332 Alcatraz Ave.	2	N	131	39	39	NO	14	13		332 Alcatraz Ave.	5	Predevelopment 7/07; per F+P list; Berkland Baptist Church site
K	Idora Court	2	N	132	434	434	NO	14	13		5666 Telegraph @ 57th	5	In planning 1/05
T	6000 Telegraph	2	N	133	433	433	NO	12	12		6000 Telegraph	5	Predevelopment 7/07; per F+P list
T	5175 Broadway	2	N	138	50	50	NO	21	20		5175 Broadway	5	Predevelopment 7/07; per LSA list
T	5253 College	2	N	138	50	50	NO	6	6		5253 College	5	Predevelopment 7/07; per LSA list
F	51st + Telegraph - Civiq	2	N	139	462	462	NO	68	65		Telegraph/51st/Clarke	3	Approved 1/06; mixed-use project
x	North Oakland Infill	2		143	438	438	NO	2	2		Units on MLK, 42nd, 43rd, and 53rd St.	7	Housing Opportunity Site NO-2-AFF
T	788 54th St.	2	N	143	438	438	NO	27	26		788 54th St.	3	Approved as of 7/07; next to Ace Hardware
T	1091 60th St.	2	N	145	44	44	NO	8	8	LOFT-2	1091 60th St.	3	Approved as of 7/07; per F+P list
T	5920 San Pablo Ave.	2	N	145	44	44	NO	8	8	LOFT-2	5920 San Pablo Ave.	3	Approved as of 1/07 per Agency list
O	Percy Abram Jr. Senior Housing	2	N	146	440	440	NO	44	43	SENIOR	Corner Salem + Alcatraz	5	Predevelopment 2004
T,O	San Pablo Heights / Tri-City Lofts	2	N,T,C	148	441	441	NO	24	23	LOFT-2	6501 San Pablo Ave.	1	Completed 2006/07
O	66th + San Pablo (Olson Co.) / Artisan Walk	2	N	148	441	441	NO	72	69	LOFT-2	6549 San Pablo Ave. @ 66th (SW corn.)	1	Completed 2007; small number of these units in Emeryville
T,F	6465 San Pablo Ave.	2	N,C	148	441	441	NO	35	34	LOFT-2	6465 San Pablo Ave.	2	Under construction 1/07
T	6521 San Pablo Ave.	2	N	148	441	441	NO	14	13	LOFT-2	6521 San Pablo Ave.	2	Under construction 1/07 per Agency list
T	1130 65th St.	2	N	148	441	441	NO	16	15	LOFT-2	1130 65th St.	2	Under construction 1/07 per Agency list
T	5630 San Pablo Ave.	2	N	149	47	47	NO	14	13		5630 San Pablo Ave.	5	Predevelopment 7/07; next to library; per LSA list
T	5518 San Pablo Ave.	2	N	149	47	47	NO	8	8	LOFT-2	5518 San Pablo Ave.	3	Approved as of 1/07 per Agency list
x	North Oakland Infill	2		194	48	48	NO	2	2		Units on MLK, 42nd, 43rd, and 53rd St.	7	Housing Oppt'y Site NO-2-AFF
x	North Oakland Infill	2		195	456	456	NO	2	2		Units on MLK, 42nd, 43rd, and 53rd St.	7	Housing Oppt'y Site NO-2-AFF
O	3701 Martin Luther King Jr. Way	2	N	195	456	456	NO	4	4		3701 Martin Luther King Jr. Way	4	Predevelopment 2004; site acquisition loan for affordable housing
D	MacArthur Transit Village - west	2	N,C	195	456	456	NO	74	71	NEW-2	3860-3884 Martin Luther King Jr. Way	1,3	Approved 2007; city-owned site and adjacent property; part of Housing Opportunity Site MATV-2 (west); Phase 1 under const. 6/07
T	880 West MacArthur	2	N	195	456	456	NO	39	37		880 MacArthur	3	Approved as of 7/07
K	Apgar Flexhouses	2	N	197	455	455	NO	19	18	LOFT-2	1000 Apgar St.	3	Approved 6/04; live/work
F	1030-1032 36th St.	2	T	197	455	455	NO	4	4		1030-1032 36th St.	5	Predevelopment 2004; 2 duplexes
D	Centrada Temescal	2	N	198	460	460	NO	51	49		4700 Telegraph Ave.	3	Approved 7/06
F	Gate 48	2	N	202	458	458	NO	12	12		574 48th St. / Shattuck to Hwy 24	1	Approved 5/05; new 12-unit building replaces 5 units; completed 12/06
F	Removal of Units for Gate 48	2	N	202	458	458	NO	(5)	(5)		574 48th St. / Shattuck to Hwy 24	1	Approved 5/05; new 12-unit building replaces 5 units; completed 12/06
F	3829 Webster Street	2	N	205	459	459	NO	4	4		Webster St. b/t 38th + 40th (W. side)	5	Convert 4 existing apts into condos; develop 4 apts currently under construction as condos
T	485 West MacArthur	2	N	205	459	459	NO	16	15		485 West MacArthur	3	Approved as of 7/07
T	Temescal Station	2	N	207	730	55	NO	28	27		40th/41st + Shafter	1	Completed 2007; developed on 2 sites, 10 THs and 18 condos
K	Piedmont + Pleasant Valley Condos	2	N	211	54	54	NO	26	25	DT-1	4395 Piedmont Ave.	2	Under construction July 2007; Madison Park project
F	4902 Broadway	2	N	211	54	54	NO	12	12		4902 Broadway	1	Completed; HEG estimate of number of units
T	412 Monte Vista	2	N	213	632	397	NO	36	35		412 Monte Vista	5	Predevelopment 7/07; per LSA list
K	Removal of housing for Kaiser Replacement Hospital	2	N	217	397	397	NO	(33)	(33)		3459 Piedmont; 3522, 3518, 3516 Broadway	1	Kaiser project approved 6/06; housing empty by 2007
	SUBTOTAL - NO							722	693				

/a/	Project	Time Period	Change /b/	New TAZ	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
T,F	Broadway/West Grand - Negherbon - Phase I	2	C,T	185	470	470	OC	132	127	DT-1	2345 Broadway / 23rd to 24th	2	Under construction 7/07; later phases after 2010; 421 units total
O	Removal of housing for Broadway/W. Grand Mixed Use	2	N	185	470	470	OC	(16)	(15)		24th St., near Valley St.		
F	2355 Broadway	2		185	470	470	OC	24	23	DT-1	Broadway @ 24th St. (SW corner)	3	Approved 7/05; mixed-use project; adaptive reuse
F	2538 Telegraph Mixed-Use	2	N	185	470	470	OC	97	93	DT-1	Telegraph + 26th (SE corner)	3	Approved 1/06; mixed-use project
T	459 23rd St.	2	N	185	470	470	OC	60	58		459 23rd St.	3	Approved 12/06
F	557 Merrimac	2		189	734	468	OC	40	38	DT-2	Merrimac @ 980 fwy	3	Approved 7/05
O	2300 Broadway	2	N	214	504	504	OC	48	46	DT-1	2300 Broadway/Webster/23rd	2	Under construction 2006
F	100 Grand	2	N	214	504	504	OC	241	231	DT-1	Grand/Webster/23rd	2	Under construction 7/07; Housing Opportunity Site DT-9
	SUBTOTAL - OC							626	601				
	PROJECTS TO BE COMPLETED 2005 - 2010 TOTAL							**1,348**	**1,294**				
	PROJECTS TO BE COMPLETED 2010 - 2015												
T	5132 Telegraph	3	N	139	462	462	NO	144	138		5132 Telegraph	5	Predevelopment 7/07; per LSA list; former bank site / Global Video
T	Temescal Co-housing	3	N	140	461	461	NO	30	29		5227 Claremont	5	Predevelopment 7/07 (site of Kingfish Pub)
T	Removal of Units for Temescal Co-housing	3	N	140	461	461	NO	(2)	(2)		5227 Claremont	5	Predevelopment 7/07
T	5244 Telegraph	3	N	140	461	461	NO	33	32		5244 Telegraph	5	Predevelopment 7/07; per LSA list
T	950 56th St.	3	N	143	438	438	NO	28	27		950 56th St.	5	Predevelopment 7/07; per LSA list
T	1122 65th St.	3	N	148	441	441	NO	22	21	LOFT-2	1122 65th St.	5	Predevelopment 7/07; per F+P list
T	5300 San Pablo	3	N	149	47	47	NO	32	31		5300 San Pablo	5	Predevelopment 7/07; per LSA list
T	Bakery Lofts	3	N	150	453	453	NO	79	76	LOFT-2	945 53rd St.	5	Predevelopment 7/07; Madison Park
T,O	MLK/MacArthur Affordable Homeownership/Grove Park	3	C,T	195	456	456	NO	60	59	MOD-2	3801-3837 Martin Luther King Jr. Way	5	Sites owned by City; Housing Oppt'y Site NO-1-AFF; predevelopment 2007; AF Evans; per Agency list
D	988/989 41st St.	3	N	196	454	454	NO	48	46	LOFT-2	988/989 41st St.	5	Predevelopment 4/06; townhouses
T	1032 39th St. - Madison Park	3	N	197	455	455	NO	25	24	LOFT-2	1032 39th St.	5	Predevelopment 7/07; 25 units in Oakland / 75 units in Emeryville
T,M	MacArthur BART transit village	3	C,T	201	457	457	NO	675	648	DT-2	BART station area and Telegraph	5	Per project assumptions 7/07; Housing Oppt'y Site MATV-1 (East); assumes all built and occupied by 2015
T	4801 Shattuck	3	N	202	458	458	NO	44	42		4801 Shattuck	5	Predevelopment 7/07
T	4200 Broadway	3	N	207	730	55	NO	100	96	DT-1	4200 Broadway	5	Predevelopment 7/07; site of old Dave's Coffee Shop + East Bay Appliance
T	4225 Broadway	3	N	207	730	55	NO	19	18	DT-1	4225 Broadway	5	Predevelopment 7/07; next door to 4200 Broadway project
T	Piedmont Gardens Expansion	3	N	209	466	466	NO	48	48	SENIOR	Piedmont Gardens, Glen/Linda	5	Predevelopment 7/07 per LSA list; 4 additional stories; HEG estimate of units; adds employment too
	SUBTOTAL - NO							1,385	1,333				
T,F	Broadway / West Grand - later phase(s)	3	C,T	185	470	470	OC	289	277	DT-1	2345 Broadway	3	Approved 6/06; later phases; total of 421 units
D	Courthouse Condominiums	3	N	189	734	468	OC	142	136	DT-2	2935 Telegraph Ave.	5	Predevelopment 7/07; site of Courthouse Athletic Club
T,F	Valdez + 23rd / Upper Lake Merritt Residential	3	C,T	214	504	504	OC	281	270	DT-1	23rd b/t Valdez + Webster (N. side)	3	Approved 1/02 and modified 2004; now back to larger project, approved 12/05
	SUBTOTAL - OC							712	683				
	PROJECTS TO BE COMPLETED 2010 - 2015 TOTAL							**2,097**	**2,016**				

/a/	Project	Time Period	Change /b/	New TAZ	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
	PROJECTS TO BE COMPLETED 2015 - 2020												
T	Infill Housing	4	N	140	461	461	NO	20	19		Telegraph + Claremont	7	Potential infill development
T	Lofts / Infill Housing	4	N	145	44	44	NO	20	19	LOFT-2	San Pablo and vicinity	7	Potential infill development
T,x	Lofts / infill	4	C	146	440	440	NO	20	19	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
T,M	Lofts / infill residential	4	N,C	147	442	442	NO	20	19	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
x	Lofts / infill	4		148	441	441	NO	40	38	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
M	Lofts / infill residential	4	N	149	47	47	NO	40	38	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
M	Lofts / infill residential	4	N	150	453	453	NO	40	38	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
T,F	Key Route Landing or similar	4	N,T	194	48	48	NO	40	38		4629 MLK @ 47th (SW corner)	7	Former project withdrawn as of 4/07
D	MacArthur Transit Village - west	4	C	195	456	456	NO	30	29	NEW-2	40th/MLK	7	BART-owned site, part of Housing Oppt'y Site MATV-2 (West)
x	Lofts / infill	4		196	454	454	NO	30	29	LOFT-2	In vicinity of Emeryville	7	Potential infill development
M	Potential redevelopment of auto dealer site	4	N	207	730	55	NO	75	72		Broadway b/t 41st and Garnet St.	7	Potential opportunity site
K,F	51st + Broadway mixed use	4	C	208	55	55	NO	100	96	DT-1	51st + Broadway; SW corner	7	Development of vacant and nearby sites
T	Infill Housing	4	N	210	757	54	NO	50	48		Broadway + vicinity	7	Potential infill development
T	Infill Housing	4	N	211	54	54	NO	50	48	DT-2	Broadway + vicinity	7	Potential infill development
	SUBTOTAL - NO							575	550				
K	Broadway Infill	4	N	185	470	470	OC	100	96	DT-1	Broadway/Grand to 27th	7	Potential infill development
T,K	Former Sears - Phase II of 3 phases	4	C,T	186	469	469	OC	200	192	DT-2	27th & Telegraph	7	Housing Opportunity Site DT-8 (parking garage site); 300 units total
x	Telegraph Gateway 2	4		186	469	469	OC	74	71	DT-2	24th + Telegraph	7	Housing Opportunity Site DT-22
K	Broadway Infill	4	N	187	56	56	OC	75	72	DT-1	Broadway/27th to 30th	7	Potential infill development
T,F	Broadway/27th (Dang site)	4	T	214	504	504	OC	250	240	DT-1	Broadway @ 27th St.	5	Predevelopment 2005; Housing Opportunity Site DT-35
K	Broadway Infill	4	N	216	75	75	OC	200	192	DT-1	Broadway/27th to 30th	7	Potential infill development
	SUBTOTAL - OC							899	863				
	PROJECTS TO BE COMPLETED 2015 - 2020 TOTAL							**1,474**	**1,413**				
	PROJECTS TO BE COMPLETED 2020 - 2025												
T	Infill housing	5	N	139	462	462	NO	10	10		Telegraph + 51st	7	Potential infill development
T	Infill housing	5	N	140	461	461	NO	20	19		Telegraph + Claremont	7	Potential infill development
T	Infill housing	5	N	143	438	438	NO	25	24		Along MLK or nearby	7	Potential infill development
T	Lofts / infill residential	5	C	145	44	44	NO	20	19	LOFT-2	In vicinity of Emeryville	7	Potential infill development
T	Lofts / infill housing	5	N	146	440	440	NO	20	19	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
T	Lofts / infill housing	5	N	147	442	442	NO	20	19	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
T	Lofts / infill housing	5	N	148	441	441	NO	20	19	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
T	Lofts / infill residential	5	C	149	47	47	NO	20	19	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
T	MacArthur Transit Village - West	5	N	195	456	456	NO	30	29	NEW-2	39th + MLK, NE corner	7	Possible opportunity site
T	Lofts / infill housing	5	N	196	459	459	NO	20	19	LOFT-2	In vicinity of Emeryville	7	Potential infill development
x	Lofts / infill residential	5		197	455	455	NO	40	38	LOFT-2	In vicinity of Emeryville	7	Potential infill development
T	Infill housing	5	N	202	458	458	NO	10	10		Shattuck + vicinity	7	Potential infill development
T	Infill housing	5	N	203	458	458	NO	10	10		Telegraph + vicinity	7	Potential infill development
T	Infill housing	5	N	205	459	459	NO	80	77		In vicinity of Transit Village	7	Potential infill development

/a/	Project	Time Period	Change /b/	New TAZ	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
T	Infill housing	5	N	206	731	55	NO	50	48		Broadway, Manilla, 40th + vicinity	7	Potential infill development
T	Infill housing	5	N	207	730	55	NO	40	38		Broadway + 41st	7	Potential infill development
T	Infill housing	5	N	208	55	55	NO	80	77	DT-2	Broadway + vicinity	7	Potential infill development
	SUBTOTAL - NO							515	494				
T	Former Sears - Phase III	5	T	186	469	469	OC	100	96	DT-2	27th & Telegraph	7	Housing Opportunity Site DT-8 (parking garage site); 300 units total
T	Infill housing	5	N	186	469	469	OC	50	48	DT-2	Telegraph + vicinity	7	Potential infill development
T	Broadway Infill	5	N	187	56	56	OC	100	96	DT-1	Broadway / 27th to 30th	7	Potential infill development
T	Infill housing	5	N	189	734	468	OC	40	38	DT-2	Telegraph + vicinity	7	Potential infill development
T	Infill housing	5	N	190	468	468	OC	40	38	DT-2	Telegraph + vicinity	7	Potential infill development
T,x	24th + Webster	5	T	214	504	504	OC	120	115	DT-1	24th/Webster/Valdez	7	Housing Opportunity Site DT-10
T,x	West Coast Properties	5	T	214	504	504	OC	140	134	DT-1	23rd/24th/Valdez/Waverly	7	Housing Opportunity Site DT-3
T	Broadway + vicinity	5	N	214	504	504	OC	200	192	DT-1	Broadway / Grand to 27th	7	Potential infill development
T	Broadway Infill	5	N	216	75	75	OC	200	192	DT-1	Broadway / 27th to 30th	7	Potential infill development
T	Broadway Infill	5	N	218	735	75	OC	40	38	DT-1	Broadway + vicinity	7	Potential infill development
	SUBTOTAL - OC							1,030	987				
x	Infill housing	5		191	57	57	WO	10	10	NEW-2	San Pablo and/or MLK	7	Selected smaller sites
M	Infill housing	5	N	191	57	57	WO	60	58	SENIOR	San Pablo Ave.	7	Potential in TAZ
M	Infill housing	5	C	192	472	472	WO	60	58	TV-2	San Pablo Ave.	7	Selected smaller sites
x	Infill housing	5		193	471	471	WO	15	15	NEW-2	MLK and nearby	7	Selected smaller sites
	SUBTOTAL - WO							145	141				
	PROJECTS TO BE COMPLETED 2020 - 2025 TOTAL							**1,690**	**1,622**				
	PROJECTS TO BE COMPLETED 2025 - 2030												
T	Infill housing	6	N	139	462	462	NO	10	10		Telegraph + 51st	7	Potential infill development
T	Infill housing	6	N	143	438	438	NO	20	19		Along MLK or nearby	7	Potential infill development
T	Infill housing	6	N	144	42	42	NO	20	19		Along MLK or nearby	7	Potential infill development
T	Lofts / infill housing	6	N	145	44	44	NO	20	19	LOFT-2	San Pablo + vicinity	7	Potential infill development
T	Lofts / infill housing	6	N	146	440	440	NO	10	10	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
T	Lofts / infill housing	6	N	147	442	442	NO	20	19	LOFT-2	San Pablo, 53rd to 67th	7	Potential infill development
T	Lofts / infill housing	6	N	149	47	47	NO	20	19	LOFT-2	San Pablo + vicinity	7	Potential infill development
T	Lofts / infill housing	6	N	150	453	453	NO	40	38	LOFT-2	San Pablo + vicinity	7	Potential infill development
T	Infill housing	6	N	194	48	48	NO	40	38		MLK, 40th, other	7	Potential infill development
T	MacArthur Transit Village - west	6	N	195	456	456	NO	30	29	NEW-2	39th + MLK, SW corner	7	Possible opportunity site
T	Infill housing	6	N	195	456	456	NO	30	29		West MacArthur	7	Potential infill development
T	Lofts / infill housing	6	N	196	454	454	NO	30	29	LOFT-2	In vicinity of Emeryville	7	Potential infill development
T	Lofts / infill housing	6	N	197	455	455	NO	30	29	LOFT-2	In vicinity of Emeryville	7	Potential infill development
T	Infill housing	6	N	198	460	460	NO	20	19		Telegraph + vicinity	7	Potential infill development
T	Infill housing	6	N	199	732	458	NO	30	29		Telegraph + vicinity	7	Potential infill development
T	Infill housing	6	N	201	457	457	NO	40	38		Telegraph / West MacArthur	7	Potential infill development
T	Infill housing	6	N	202	458	458	NO	20	19		Shattuck + vicinity	7	Potential infill development
T	Infill housing	6	N	205	459	459	NO	50	48		In vicinity of transit village	7	Potential infill development
T	Infill housing	6	N	206	731	55	NO	80	77		Broadway, Manilla, 40th + vicinity	7	Potential infill development
	SUBTOTAL - NO							560	537				

/a/	Project	Time Period	Change /b/	New TAZ	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
T	Broadway Infill	6	N	185	470	470	OC	100	96	DT-1	Broadway / Grand to 27th	7	Potential infill development
T	Infill housing	6	N	186	469	469	OC	120	115	DT-2	Telegraph + vicinity	7	Potential infill development
T	Broadway Infill	6	N	187	56	56	OC	250	240	DT-1	Broadway / 27th to 30th	7	Potential infill development
T	Infill housing	6	N	189	734	468	OC	60	58	DT-2	Telegraph + vicinity	7	Potential infill development
T	Infill housing	6	N	190	468	468	OC	50	48	DT-2	Telegraph + vicinity	7	Potential infill development
T,x	Valdez Area	6	T	214	504	504	OC	250	240	DT-1	24th/27th/Valdez	7	Housing Opportunity Site DT-12
T,x	Valdez Area	6	T	214	504	504	OC	350	336	DT-1	23rd/24th/Waverly/Harrison	7	Housing Opportunity Site DT-18
T	Broadway Infill	6	N	218	735	75	OC	50	48	DT-1	Broadway + vicinity	7	Potential infill development
	SUBTOTAL - OC							1,230	1,181				
T	Infill housing	6	N	191	57	57	WO	50	48	NEW-2	San Pablo, MLK + vicinity	7	Potential infill development
T	Infill housing	6	N	192	472	472	WO	50	48	NEW-2	San Pablo + vicinity	7	Potential infill development
T	Infill housing	6	N	193	471	471	WO	30	29	NEW-2	MLK + vicinity	7	Potential infill development
	SUBTOTAL - WO							130	125				
	PROJECTS TO BE COMPLETED 2025 - 2030 TOTAL							**1,920**	**1,843**				
	TOTAL 2000 - 2030							**9,047**	**8,689**				

/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'U' indicates updated assumptions for Uptown Project EIR, May 2003. 'C' indicates updated assumptions for Central Station Project. December 2003. 'O' indicates updated assumptions for Oak to 9th EIR, November 2004. 'K' indicates updated assumptions for Kaiser EIR, April 2005. 'F' indicates updated assumptions for Fruitvale EIRs, March 2006. 'M' indicates updated assumptions for Mandela Grand Project EIR, May 2006. 'D' indicates updated assumptions for Downtown Cumulative Update, May 2006. 'T' indicates updated assumptions for MacArthur Transit Village Project EIR, July 2007.

/b/ Codes indicate change made. C = change in number of units and/or number of households; N = new project added to list; T = change in time period assumed for development and occupancy.

/c/ Households equal units multiplied by an assumed vacancy factor.

/d/ Status of project: 1 = completed; 2 = under construction; 3 = approved; 4 = affordable housing project in predevelopment; 5 = other projects in predevelopment; 6 = in planning or part of existing plan; 7 = other housing opportunity site.

/e/ Housing Opportunity Sites are those identified in Oakland's Draft Housing Element (September 2002). The numbers (e.g., DT-11) are those used in Housing Element tables.

/f/ New CCAC residence hall treated as group quarters population in the growth scenario.

Source: City of Oakland; Hausrath Economics Group

Table 5b
OAKLAND CUMULATIVE GROWTH SCENARIO
ASSUMPTIONS FOR COMMERCIAL/INDUSTRIAL PROJECTS IN THE MACARTHUR TRANSIT VILLAGE SURROUNDING AREAS
CMA/ABAG PROJECTIONS 2005 SCENARIO AS REVISED JULY 2007

/a/	Project	Time Period	Change /b/	New TAZ	Oakland TAZ	CMA TAZ	Planning District	Sq. Ft.	Empls	SF/Emp	Location	Comments
	PROJECTS COMPLETED 2000 - 2005											
x	Market Hall Expansion	1		138	50	50	NO		50		College Ave.	Completed 2003
K	Children's Hospital Research Ctr - continuing occup. of MLK campus	1	N	144	42	42	NO		180		5700 MLK Jr. Way	
O	Children's Hospital Research Ctr for Immunobiology and Vaccine Dept.	1	N	144	42	42	NO	9,900	28	350	5700 MLK Jr. Way	Completed 2005
O	Children's Hospital western addition	1	N	194	48	48	NO	26,000	64	400	747 52nd St.	Completed; western wing of existing hospital building
	Flecto Project - commercial space	1		196	454	454	NO	3,000	8	400	47th St. + Adeline	Commercial part of mixed use project; under construction 2002
C	Temescal Place - ground floor commercial/retail	1		203	458	458	NO	838	3	300	Telegraph + 48th	Completed 2004
O	Kaiser Hospital - expansion of maternity ward and other growth	1	N	212	631	631	NO		250		Howe, MacArthur, + Broadway	Maternity ward shifts from Alta Bates in Berkeley back to Kaiser Oakland
O	Retail intensification - Telegraph	1	N	185	470	470	OC		45			Expansion of Korean-oriented retailing
x	Telegraph Gateway	1		186	469	469	OC	5,300	14	375	2401 Telegraph @ 24th St.	Ground floor commercial; under construction 3/04; completed
	PROJECTS TO BE COMPLETED 2005 - 2010											
K	Idora Court - ground floor commercial	2	N	132	434	434	NO	4,000	11	350	5666 Telegraph	In planning 1/05; HEG estimate of ground floor space
T	5253 College - ground floor commercial	2	N	138	50	50	NO	1,000	3	300	5253 College	Predevelopment 7/07; per LSA list; HEG estimate of space
K	Children's Hospital: potential growth of outpatient and research activities	2	N	139	462	462	NO	-	14	-	Claremont near 51st and vicinity	Some expansion in this TAZ or nearby
F	51st + Telegraph Mixed Use - Civiq	2	N	139	462	462	NO	3,000	12	250	Telegraph/51st/Clarke	Approved 1/06; mixed-use project
K	Children's Hospital: potential growth of outpatient and research activities	2	N	143	438	438	NO	-	14	-	744 52nd St. or nearby	Some expansion in this TAZ or nearby
K	Children's Hospital: potential growth of outpatient and research activities	2	N	144	42	42	NO	-	22	-	5700 MLK Jr. Way or nearby	Some expansion in this TAZ or nearby
F	6465 San Pablo Ave. - ground floor commercial	2	N	148	441	441	NO	2,268	6	350	6465 San Pablo Ave.	Under construction 1/07; mixed-use project
T	San Pablo Heights / Tri-City Lofts	2	N	148	441	441	NO	2,451	7	350	6501 San Pablo Ave.	Completed 2006/2007
T	5630 San Pablo - ground floor commercial	2	N	149	47	47	NO	2,000	6	350	5630 San Pablo Ave.	Predevelopment 7/07 per Agency list; HEG estimate of space
T	5518 San Pablo - ground floor commercial	2	N	149	47	47	NO	2,000	6	350	5518 San Pablo Ave.	Approved as of 1/07 per Agency list; HEG estimate of space
T	MacArthur Transit Village - west	2	N	195	456	456	NO	3,500	10	350	3860-3884 MLK	Approved 2007; ground floor comm'l space estimated by HEG
T	Centrada Temescal - ground floor commercial	2	N	198	460	460	NO	5,050	14	350	4700 Telegraph Ave.	Approved 7/06
T,M	MacArthur BART Transit Village - removal of uses for construction	2	C	201	457	457	NO		(71)		Along Telegraph Ave.	
K	Kaiser Hospital Replacement Project - Phase 1	2	N				NO					
K	New Medical Service Building (MSB)	2	N	206	731	55	NO	165,000	454		Broadway b/t 37th and 38th Sts.	Replaces existing commercial space with 80 jobs
K	Ground floor commercial space in new MSB	2	N	206	731	55	NO	1,700	5	350	Ground floor of new MSB	
K	New Administrative Offices	2	N	206	731	55	NO	19,112	240		380 West MacArthur	Replaces existing AAA offices with 55 jobs
K	Removal of existing commercial space and uses for Kaiser expansion	2	N	206	731	55	NO		(135)		Broadway b/t 37th and 38th Sts. and 380 W. MacArthur	Some uses could relocate elsewhere in Oakland
K	Growth in existing Mosswood MSB	2	N	206	731	55	NO		3		3505 Broadway	
K	Existing MB Center demolished; Kaiser uses shift	2	N	217	397	397	NO		(369)		Broadway + MacArthur, to the south	Kaiser jobs shift to new facilities
K	MB Center and rest of block demolished; commercial uses displaced	2	N	217	397	397	NO		(65)		Broadway + MacArthur, to the south	Some uses could relocate elsewhere in Oakland
K	Some shift of Kaiser activity to new MSB	2	N	212	631	631	NO	-	(54)	-	Buildings on Howe St. and Piedmont Ave.	Shifts from Fabiola MSB, Howe MSB, and Piedmont MSB
T	Temescal Station - ground floor commercial	2	N	207	730	55	NO	2,090	6	350	400 40th St. + Shafter	Under construction 1/07 per Agency list
K	Piedmont + Pleasant Valley - ground floor commercial	2	N	211	54	54	NO	5,000	14	350	4395 Piedmont Ave.	Under construction 7/07; HEG estimate of ground floor space
T,F	Broadway / West Grand Negherbon - retail/commercial - Phase I	2	C	185	470	470	OC	18,000	51	350	2345 Broadway / 23rd to 24th	Under construction 7/07; new project removes auto-related uses and employment; later phase after 2010; 30,000 sf total
F	2538 Telegraph Mixed-Use	2		185	470	470	OC	9,000	26	350		Approved 1/06; mixed-use project
F	2355 Broadway - ground floor retail	2	N	185	470	470	OC	3,671	10	350	Broadway @ 24th Street	Approved 7/05; adaptive reuse; mixed-use
T	459 23rd St. - ground floor commercial	2	N	185	470	470	OC	3,500	10	350	459 23rd St.	Approved 12/06; HEG estimate of ground floor space
O	Mercedes dealership expansion	2	N	187	56	56	OC	10,000+	47		370 29th St.	Expanded parts dept. and additional mechanic service bays
F	29th St. + Broadway / Requium	2	N	187	56	56	OC	3,600	9	400	29th St. @ Broadway	New bar/nightclub
K/D	Growth of Summit medical activity and employment	2	N,T	188	467	467	OC		270		Summit medical campus and surr. area	Includes Breast Health Center in Providence Pavilion
F	557 Merrimac - ground floor commercial	2	N	189	734	468	OC	2,690	8	350	Merrimac @ 980 fwy	Approved 7/05
F	100 Grand - ground floor commercial	2	N	214	504	504	OC	5,415	15	350	Grand/Webster/23rd	Approved 7/05; mixed-use project

/a/	Project	Time Period	Change /b/	New TAZ	Oakland TAZ	CMA TAZ	Planning District	Sq. Ft.	Empls	SF/Emp	Location	Comments
	PROJECTS TO BE COMPLETED 2010 - 2015											
T	5132 Telegraph - ground floor commercial	3	N	139	462	462	NO	4,000	11	350	5132 Telegraph	Predevelopment 7/07; 51st + Telegraph
T	Temescal Co-housing	3	N	140	461	461	NO	1,250	4	350	5227 Claremont	Predevelopment 7/07; site of Kingfish pub, to be removed
K	Children's Hospital Replacement Project and potential growth in associated outpatient and research activities in vicinity	3	N	143	438	438	NO	-	8	-	744 52nd St. or nearby	Some expansions in this TAZ or nearby
K	Children's Hospital Replacement Project and potential growth in associated outpatient and research activities in vicinity	3	N	144	42	42	NO	-	14	-	5700 MLK Jr. Way	Some expansions in this TAZ or nearby
T	Bakery Lofts - ground floor commercial	3	N	150	453	453	NO	5,500	16	350	945 53rd St.	Predevelopment 7/07
K	Children's Hospital Replacement Project and potential growth in associated outpatient and research activities in vicinity	3	N	194	48	48	NO	-	106	-	747 52nd Street and nearby	Some expansions in this TAZ or nearby
T,x	Additional retail/commercial activity and/or add'l auto repair uses	3	T	195	456	456	NO	5,000	11	450	Along MLK and West MacArthur	Increased use of existing space and possibly some infill and new space
T,M	MacArthur BART Transit Village	3	C	201	457	457	NO					Per Project assumptions, 7/07; all built and occupied by 2015
T,M	ground floor space for retail, community, and live/work uses	3	C	201	457	457	NO	39,000	94	415	BART station area	
T,M	parking structure (975 spaces)	3	C	201	457	457	NO					
T,M	project management, maintenance, and security (including parking)	3	C	201	457	457	NO		10			
K	Kaiser Hospital Replacement Project - Phase 2	3	N				NO					
K	Mosswood MSB and New MSB	3	N	206	731	55	NO		18		3505 Broadway + Broadway 37th to 38th	Increased occupancy of Kaiser facilities
K	New Replacement Hospital (346 beds)	3	N	217	397	397	NO	800,000	2,882		Broadway + MacArthur, to the south	Replaces existing MB Center and nearby uses on block
K	New hospital services building	3	N	217	397	397	NO	326,837	562		Broadway + MacArthur, to the south	Part of new hospital complex
K	Existing hospital and low-rise MSB close and activities shift to new facilities	3	N	212	631	631	NO		(2,550)		Broadway + MacArthur, to the north	
K	Shifts in activity among MSBs and removal of MRI trailer	3	N	212	631	631	NO		(52)		Broadway + MacArthur, to the north	Shifts among Kaiser facilities
T	4200 Broadway - ground floor commercial	3	N	207	730	55	NO	5,500	18	300	4200 Broadway	Predevelopment 7/07; space estimated by HEG; site of old Dave's Coffee Shop and East Bay Appliance
T	Broadway / West Grand - later phase(s)	3	C,T	185	470	470	OC	12,000	34	350	2345 Broadway / 23rd to 24th	Approved 6/06; later phases; 30,000 sf total
T	Medical employment growth - near Alta Bates Summit	3	N	187	56	56	OC		20		Medical center areas; Pill Hill	Increased occupancy; infill
T,D	Alta Bates Summit Medical Center and surrounding medical areas	3	N,T	188	467	467	OC		400		Summit Campus and surrounding area	Potentially including a new replacement hospital (350 beds) and renovation of existing hospital facilties not now used
T,D	Courthouse Condos - ground floor	3	N,C	189	734	468	OC	3,000	9	350	2935 Telegraph Ave.	Predevelopment 7/07; replaces Courthouse Athletic Club with 72 employees
T,F	Valdez + 23rd / Residential - ground floor retail	3	N,T,C	214	504	504	OC	12,000	34	350	23rd b/t Valdez + Webster (N. side)	Ground floor commercial; initially approved 01/02; revisions approved 12/05 and 2/06
	PROJECTS TO BE COMPLETED 2015 - 2020/25											
T,K	Children's Hospital Replacement Project and potential growth in associated outpatient and research activities in vicinity	4	C,T	139	462	462	NO	-	32	-	Claremont, 51st and vicinity	Some expansions in this TAZ or nearby
T,K	Children's Hospital Replacement Project and potential growth in associated outpatient and research activities in vicinity	4	C,T	140	461	461	NO	-	20	-	Telegraph/Claremont and vicinity	Some expansions in this TAZ or nearby
T,K	Children's Hospital Replacement Project and potential growth in associated outpatient and research activities in vicinity	4	C	143	438	438	NO	-	13	-	744 52nd St. or nearby	Some expansions in this TAZ or nearby
T,K	Children's Hospital Replacement Project and potential growth in associated outpatient and research activities in vicinity	4	C	144	42	42	NO	-	20	-	5700 MLK Jr. Way	Some expansions in this TAZ or nearby
T,K	Children's Hospital Replacement Project and potential growth in associated outpatient and research activities in vicinity	4	N,T	194	48	48	NO	-	174	-	747 52nd Street and nearby	Some expansions in this TAZ or nearby
T,K	Additional retail/commercial activity and/or add'l auto repair uses	4	C,T	195	456	456	NO	15,000	33	450	Along MLK and West MacArthur	Increased use of existing space and possibly some infill and new space
T	Telegraph near BART - ground floor commercial	4	N	205	459	459	NO	5,000	14	350	Across from MacArthur Transit Village	Potential infill development
T	Broadway below 40th - ground floor commercial	4	N	206	731	55	NO	15,000	43	350	Broadway below 40th	Potential infill development
T,M	Potential redevelopment of Auto Dealer Site - ground floor commercial	4	N,T	207	730	55	NO	5,000	14	350	Broadway b/t 41st + Garnet St.	Potential mixed-use development
T	Broadway + 41st - ground floor commercial	4	N	207	730	55	NO	7,500	21	350	Broadway + 41st	Potential infill development
T,F	51st + Broadway Mixed-Use - commercial space	4	T	208	55	55	NO	50,000	133	375	51st + Broadway, SW corner	Development of vacant sites and nearby
T	Broadway - ground floor commercial	4	N	211	54	54	NO	5,000	14	350	Broadway + vicin Pleasant Valley to 42nd	Potential infill development

/a/	Project	Time Period	Change /b/	New TAZ	Oakland TAZ	CMA TAZ	Planning District	Sq. Ft.	Empls	SF/Emp	Location	Comments
T,K	Kaiser Hospital Replacement Project - Phase 3	4	N,T				NO					
T,K	Ground floor commercial space in new MSB	4	N,T	206	731	55	NO	6,000	17	350	Broadway b/t 37th + 38th	Additional commercial space from converted parking area
T,K	Mosswood MSB + New MSB	4	T	206	731	55	NO		9		3505 Broadway + Broadway 37th to 38th	Increased occupancy of Kaiser facilities
T,K	New Central MOB	4	N,T	212	631	631	NO	76,945	111		Broadway + MacArthur, to the north	On site of former hospital
T,K	Shifts in activity among facilities	4	T	212	631	631	NO		(76)		Broadway + MacArthur, to the north	Shifts among Kaiser facilities
T,K	Shift from leased space to Kaiser facilities	4	N,T	213	632	632	NO		(40)			Leased space to be backfilled by other uses
T,K	New Replacement Hospital increased activity	4	T	217	397	397	NO		488		Broadway + MacArthur, to the south	Increased occupancy of new hospital
T,K	New Hospital Services Building increased activity	4	T	217	397	397	NO		163		Broadway + MacArthur, to the south	Increased occupancy
T,K	Broadway mixed use - ground floor commercial	4	N,T	185	470	470	OC	10,000	29	350	Broadway/Grand to 24th	Potential infill development; could replace auto use
T,K	Retail/commercial intensification on Telegraph	4	C,T	185	470	470	OC		50			
T,K	Commercial in residential developments	4	N,T	186	469	469	OC	10,000	27	375	Vicinity of Telegraph Ave.	Potential ground floor commercial in Sears Phase 2 and/or Telegraph Gateway 2
T,K	Broadway mixed use - ground floor commercial	4	N,T	187	56	56	OC	15,000	42	350	Broadway / 27th to 30th	Potential infill development; could replace auto use
T	Medical employment growth - near Alta Bates Summit	4	N	187	56	56	OC		41		Medical Center areas; Pill Hill	Increased occupancy; infill
T	Alta Bates Summit Medical Center and surrounding medical areas	4	T	188	467	467	OC		950		Summit Campus and surrounding areas	Potentially including a new replacement hospital (350 beds), renovation of existing hospital facilties not now used, and a new medical office building of approximately 100,000 sq. ft.
T,F	Broadway + 27th / Dang site - ground floor retail/commercial	4	N,T	214	504	504	OC	25,000	67	375	Broadway + 27th	Predevelopment 2005; replaces auto use
T	Broadway / Valdez area	4	N,T	214	504	504	OC	14,000	40	350		Potential infill development and intensification of commercial
T,K	Intensified commercial in vicinity of 27th + Bay Place	4	T	214	504	504	OC		60		Vicinity of 27th + Bay Place	Intensified commercial
T,K	Broadway mixed use - ground floor commercial	4	N,T	216	75	75	OC	40,000	107	375	Broadway / 27th to 30th	Potential infill development
T,x	New commercial/retail along San Pablo	4	T	191	57	57	WO	30,000	67	450	San Pablo Ave.	Potential development
	PROJECTS TO BE COMPLETED 2025 - 2030											
T	Children's Hospital: potential growth of outpatient and research activities	5	N	140	461	461	NO	-	28	-	Telegraph / Claremont and vicinity	Some expansion in this TAZ or nearby
T	Children's Hospital: potential growth of outpatient and research activities	5	N	143	438	438	NO	-	78	-	MLK Jr. Way or nearby	Some expansion in this TAZ or nearby
T	Alta Bates Summit Medical Center and surrounding medical areas	5	N	188	467	467	NO		120		Summit campus and surrounding areas	Additional growth and increased occupancy
T	Children's Hospital: potential growth	5	N	194	48	48	NO	-	24	-	747 52nd Street and nearby	Increased activity in hospital area or nearby
T	West MacArthur or nearby - ground floor commercial	5	N	205	459	459	NO	3,500	10	350	West MacArthur b/t Telegraph + B'way	Potential infill development
T	Broadway - ground floor commercial	5	N	208	55	55	NO	5,000	14	350	Broadway / 51st to 42nd	Potential infill development
T	Kaiser - additional growth of MSB/admin functions	5	N	212	631	631	NO		300		Site of former hospital	Expansion of MSB/admin. functions
T	Increased retail activity - Piedmont Ave. near Kaiser	5	N	213	632	632	NO		35		Piedmont Ave.	Increased retail activity supported by Kaiser nearby
T	Kaiser - increased hospital activity	5	N	217	397	397	NO		172		Broadway + MacArthur to the south	Increased usage of new hospital
T	Broadway mixed use - ground floor commercial	5	N	185	470	470	OC	12,000	34	350	Broadway / Grand to 27th	Potential infill development
T	Broadway mixed use - ground floor commercial	5	N	187	56	56	OC	10,000	29	350	Broadway / 27th to 30th	Potential infill development; could replace auto use
T	Medical employment growth - near Alta Bates Summit	5	N	187	56	56	OC		30		Medical Center areas; Pill Hill	Increased occupancy; infill
T	Potential development of auto dealer site(s) for commercial uses (retail and/or office)	5	N	188	467	467	OC	100,000	286	350	Broadway	Potential future development
T	Valdez area - ground floor commercial	5	N,T	214	504	504	OC	10,000	29	350		Potential infill development and intensification of commercial
T	Intensified commercial in vicinity of 27th and Bay Place	5	N	214	504	504	OC		35		Vicinity of 27th and Bay Place	Intensified commercial

/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'U' indicates updated assumptions for Uptown Project EIR, May 2003. 'C' indicates updated assumptions for Central Station Project, December 2003. 'O' indicates updated assumptions for Oak to 9th EIR, November 2004. 'K' indicates updated assumptions for Kaiser EIR, April 2005. 'F' indicates updated assumptions for Fruitvale EIRs, March 2006. 'M' indicates updated assumptions for Mandela Grand Project EIR, May 2006. 'D' indicates updated assumptions for Downtown Cumulative Update, May 2006. 'T' indicates updated assumptions for MacArthur Transit Village Project EIR, July 2007.

/b/ Codes indicate change made. C = change in number of units and/or number of households; N = new project added to list; T = change in time period assumed for development and occupancy.
T = change in time period assumed for development and occupancy.

Source: City of Oakland; Hausrath Economics Group