

Arc Ecology

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Mr. Paul Maltzer
Environmental Review Officer
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1660 Mission St, Suite 500
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Draft Environmental Impact Report for the Transfer and Reuse of Naval Station Treasure Island
(Case No. 94-448E)

Dear Mr. Maltzer:

Thank you for extending the comment period for this document. I have needed every moment of the additional time. The NSTI Reuse DEIR has been difficult to review,- I think in part because it has had so many authors and has been prepared over such a long period of time.

When I submitted comments on the Notice of Preparation seven years ago, I thought we would be receiving a combined DEIS/DEIR on conveyance and the Reuse Plan. In contrast, this DEIR has been published as an independent document, and it is intended to provide programmatic environmental review of a future TI/YBI redevelopment plan, and project level review of the Marina Project.

THE REDEVELOPMENT PLAN

At the October 2nd public hearing, I testified that this EIR should not be put to such use. The DEIR cannot adequately inform approval of the redevelopment plan because assumptions in the DEIR – e.g., that all Reuse Plan goals and objectives will be fully implemented – will not be applicable to the redevelopment plan. Some of those goals and objectives require implementation by other agencies – such as bus service to the East Bay and expanded ferry service. Other assumptions are infeasible – for example, that no child will travel to school by automobile, or that there will be no automobile use for trips internal to TI/BI, or that all construction traffic will be limited to off-peak hours, which in the Bay Area now extend from 5 to 10 a.m., and 3 to 7 p.m. Even if these assumptions could be tolerated for the Reuse Plan, which has no legal authority to influence development decisions, they are completely unacceptable for a redevelopment plan that will become the sole source of control over land use decisions.

Furthermore, the Reuse Plan sets out a specific development program that would generate an atypical pattern of trips. A redevelopment plan with the same magnitude of development but hosting a different mix of activities would not echo the Reuse Plan trip pattern. The assumptions and development scenarios are fundamental to the architecture of this DEIR and cannot simply be tweaked to fit a project built on a different foundation.

I have heard informally that the City has recognized that additional environmental review would be needed for the redevelopment plan, whose adoption has now been postponed. But I also understand that the City is still considering use of this DEIR as the base document, off of which the supplementary analysis would be tiered.

For that reason, our comments must presuppose that this DEIR is creating the environmental envelope for development decisions that the redevelopment plan will enable, and we must hold the document to a rigorous standard.

PROJECT-LEVEL REVIEW OF THE PROPOSED MARINA

In our October 2nd comments, I also observed that the information provided in this DEIR about the Marina Project is insufficient to support project-level review. Although additional review time has enabled me to ferret out additional information about the Marina scattered throughout the DEIR, my earlier objection stands.

The problem with using this DEIR to review environmental impacts of the Marina begins with the Notice of Preparation, which does not provide notice that the document would be used for a project-level review. The numerous responsible and affected agencies involved in the Marina Project have not had a chance to tell you what factors they need the EIR to consider. Nor has the public. Substantive discussion of project-level issues concerning Marina is also absent from the Executive Summary and Project Objectives (needed in order to determine the environmentally superior alternative, and to provide the basis for findings of overriding considerations). Substantive information about the Marina Project is buried in the programmatic analysis, making it practically impossible for the reader to understand impacts specific to this approval. Since mitigation measures are not proposed specifically for the Marina Project, their applicability is not clear, and monitoring them will be a nightmare.

The omission of basic information about the Marina makes it impossible to know whether the conclusions of the DEIR are reasonable. An example of the problem is that there are no elevation drawings of the landside buildings even though they are in the vicinity of two historic buildings. When I inspected the project file on October 3rd, I found a more complete description of the Marina Project¹ project and although it appears to be out of date, it reinforced rather than resolved concerns about the adequacy of review provided by the DEIR.

- Toxics - The project abuts an IR site. The DEIR does not address whether the risk level at the end of the cleanup will be consistent with residential use shown in the TIE plan (an apartment for the Harbormaster) or if the Marina intends to provide for live-aboards.
- Dredging – This site has not undergone deep dredging for decades, which would increase damage to wildlife when the dredging for this project occurs. How much material will initially be dredged from this site? What toxics are likely to be present in the dredge material? How often will dredging be necessary once the Marina is in operation? The

¹ Treasure Island Enterprises, Treasure Island Marina Final Development Plan, February 14, 2002

necessity for this part of the Marina to receive an ACE permit does not obviate the obligation of the DEIR to review these issues.

- Historic Preservation – How will the glass façade of the new restaurant affect the historic integrity of nearby historic buildings?
- Alternative Project – Although each of the Reuse Project alternatives includes a variation of the Marina Project, these alternatives are not compared and evaluated. The alternatives (each with 500 slips) appear to be more, rather than less intensive, suggesting that they fail to provide an option with a lower level of impacts.
- Description in the Development Program - The detailed land use programs for the alternatives that are the basis of trip generation rates do not take Marina landside development into account.² The land uses shown for Traffic Analysis Zone 1 do not include the restaurant and yacht club – just the 403 slips. It would seem that a significant share of Marina traffic impacts have not been evaluated in the DEIR.
- Temporary parking lot - The triangular area shown as temporary parking for the Marina Project is also designated as a helipad to be used for medical emergencies³.

If this EIR is still expected to provide project-level review of the Marina Project, that analysis must be rewritten and recirculated.

I am providing additional comments on transportation issues in the attached material. Those comments come to the conclusion that the transportation analysis is so deeply flawed that it too needs to be recirculated.

Please keep in mind that in my comments when I refer to the Project, I mean the Maximum Alternative.

Finally I would like to thank Rick Cooper for his cheerful assistance to me when I reviewed the files. Please let me know if I can answer any questions.

Yours truly,

Eve Bach
Staff Economist/Planner

² Page E-27

³ Page 3-53

Attachment: Comments on Transportation

Cc: Anne Marie Conroy
Treasure Island Citizens Advisory Board
Treasure Island Development Authority
Planning Commission
Jay Wallace

COMMENTS ON TRANSPORTATION

There are two major deficiencies in the analysis of transportation impacts: (1) the analysis of freeway and other regional impacts is systematically structured to avoid a serious discussion of actual impacts to the freeway system, including feeder arterials, and (2) trip generation calculations are based on unwarranted assumptions. An overview discussion of both deficiencies precedes our page-by-page comments.

These deficiencies are serious enough to require redrafting and recirculation of the DEIR.

Overview of Impacts on the Regional Transportation System

The DEIR concludes that the Project will have both direct and cumulative impact on the Bridge segment of I-80. It finds that the direct impacts can be fully mitigated and the cumulative impacts are unavoidable. The same deferred mitigations, without performance standards are proposed for both the direct and the cumulative impacts.

Although there are numerous obvious flaws in the analysis that recognized these impacts, defects in the analysis of freeway and regional traffic impacts in this DEIR that are most damaging to the integrity of the DEIR. The most serious problem is that the DEIR has been structured to ignore Project impacts on freeway segments beyond the Bridge in San Francisco, Alameda, and Contra Costa Counties and on the arterials that serve this part of the freeway system. In its selective focus on the comparatively minor impacts of the Project on the small section of I-80 between Fremont Street and the Toll Plaza, the DEIR deflects attention away from the more serious impacts that will make an increasing number of San Francisco streets impassable during peak hours, and that will expand the radius of congestion that peak hour Bridge traffic causes in the regional freeway system. In refusing to acknowledge these far flung impacts, the DEIR also evades responsibility for proposing effective mitigations. It is an approach that is both cynical and ultimately counter-productive in its disregard for the environment.

Flaws in the Analysis of Significant Impact on the Bridge Itself

First let us focus briefly on the analysis that concludes that impacts on the Bridge are limited to westbound peak traffic on the western segment of the Bridge. This analysis fails in its own terms, irrespective of impacts beyond this overly-narrow focus on volume increases on the Bridge itself. The analysis leading to the conclusion that there will be a significant mitigable impact of the Project on Bridge operations is depicted inconsistently, varying with the section of the DEIR. See Attachment D.

The impact is mostly presented as an increase in volume – which is the measure embedded in the sole Criterion of Significance applicable to freeway impacts. The discussion of increased volume mostly contends that the Bridge is and has been operating at capacity during peak hours so that no additional volume can be added⁴.

⁴ Page 4-64

In contrast, the analysis of the impact of Bridge operations⁵ concludes that there will be an impact based on the deterioration of LOS for westbound traffic traveling between TI/YBI and Fremont Street during both peak periods. The data that supports this conclusion is based on consultant data⁶ that is not consistent with San Francisco data. No data is presented to support the conclusion that there will be no impacts on the segment east of TI/YBI⁷. The DEIR does not explain what mix of volume and speed is embedded in the consultant's calculation of LOS, which is different from the definition (based on average speed) used by the San Francisco Transportation Authority (which was not consulted in the preparation of this DEIR⁸ or provided with a copy as part of the review process⁹).

Attachment E provides LOS data from the San Francisco Transportation Authority that suggests that additional volume generated by the Project could trigger the Criterion of Significance because their data shows that the LOS was not at F in 1993, as opposed to calculations provided by transportation consultant Korve in their unexplained, undocumented definition of LOS in Table E-19.

The DEIR does not identify impacts on the Bridge segment east of TI/YBI despite LOS data on the peak hour speeds in the document itself. Table E-17 suggests that LOS on this segment could significantly deteriorate since it is not already at LOS F. However the table has obvious errors and needs to be revised. The DEIR should provide data on this segment collected by the Alameda County Congestion Management Agency which is responsible for this segment. The DEIR must provide a verifiable source for this data, beyond identifying the consultant who generated the error-ridden table.¹⁰

The unfortunate result of the impact analysis of Bridge traffic is a discussion that acknowledges some, though clearly not all of the Project impacts on Bridge conditions. The damage that results from ignoring some of the impacts on the Bridge is that there is no attempt to mitigate them.

Focusing narrowly on the volume that the Project would add only to Bridge segments of the regional transportation system disregards more important impacts.

⁵ page 4-79

⁶ Table E-19, page E-50

⁷ The Alameda County Congestion Management Agency which has jurisdiction over the Bridge segment between TI and the Toll Plaza was not consulted during preparation, nor provided a copy during the review period for this DEIR. See Page 6-2 and Chapter 9.

⁸ Page 6-2

⁹ Chapter 9

¹⁰ Eastbound weekday traffic between the tunnel and some unspecified point to the east is projected to remain unchanged from its claimed 1993/94 level of 57 m/hr for all alternatives at some unspecified date in the future. The speed of comparable westbound traffic is projected to decrease from 45 m/hr to 3 m/hr for all alternatives except the preferred Maximum alternative, for which no numbers are provided. Furthermore the table ranks 45 m/hr as LOS F, even though the Highway Capacity Manual, and the Alameda County Congestion Management Agency, in whose jurisdiction this segment falls, designates it as LOS E

The conclusion that direct Project impacts on the freeway and regional impacts occur only on the western portion of the bridge, and only for westbound traffic, was engineered by the structure of the analysis:

1. a region of influence (ROI) too small to capture the Project's impacts;
2. an indicator of traffic conditions that is insensitive to actual impacts of concern;
3. an inconsistent baseline;
4. criteria of significance that are not triggered if conditions are already badly impacted;
5. disregard of safety problems within the ROI.;
6. token analysis of cumulative impacts and mitigations; and
7. vague commitment to ineffectual mitigation measures.

The DEIR analysis of the Project's impacts on the freeway system is comparable to studying the impacts of running water for twenty years into an already-full bathtub by measuring the amount of water inside the tub. Such a study would find no impacts because the amount of water inside the tub would not increase, but this conclusion would be beside the point to those concerned about damage caused by the overflow. A study that limits itself to looking for impacts inside the tub diverts attention from the need to turn off the water.

Likewise, the same kinds of errors in the of TI/YBI transportation issues work in tandem to obscure the most severe impacts of the Project on the freeway and regional transportation system. The analysis is unacceptable for at least the following reasons:

1. **Too Small ROI:** The ROI for regional and freeway traffic impacts of the Project extends only as far as Fremont and First Streets to the west and the Toll Plaza to the east. It does not capture backups that extend throughout much of the San Francisco freeway system and adjoining arterials, or through portions of the Alameda and Contra Costa freeway systems.
2. **Insensitive Impact Measure:** Traffic impacts are primarily experienced as delay. The number of cars on the road is related to delay but the correlation breaks down under very congested conditions. When congestion traffic flow is impeded, fewer cars can pass through a given freeway segment. Determining impacts by measuring additions to volume results in an incomplete, and sometimes misleading measure of traffic impacts.

In fact, the spiking of traffic volume on the Bay Bridge in 1993 (the baseline year) is associated with traffic moving at a *faster, not slower* speed than in 2001 when both volume and speed were lower. The average speed between TI and Fremont Street (both directions) during both peak hours in 1992/93 was 36.8 miles per hour (LOS E); by 2001 average speed had declined to 29.6 miles per hour (LOS F), a reduction of 19%. During this same period, the peak volume on this segment (a.m. and p.m., both directions) fell from 22,800 vehicles to 18,600 – an 18.2% decrease. See Attachment E. The association of lower speed with higher traffic volume illustrates why volume should not be used as a single indicator of congestion.

Average speed is a better measure of freeway conditions because it is more directly related to the actual impact. The problem of traffic congestion is the delay it causes for travelers and goods to reach their destinations. That is why congestion management agencies track average speed

and/or delay. Although speed may not be a perfect indicator, (since it blends the slower speed in merging lanes with the faster speed of less affected lanes - a major issue for TI/YBI traffic entering Bridge traffic), it is better at discerning traffic impacts than volume.

Using speed rather than traffic volume to analyze Project impacts on the Bridge dramatically changes the analysis of Bridge traffic because it negates the DEIR argument, based on traffic volume, that conditions cannot get any worse when volume is at capacity. As shown in Attachment E, the 2001 San Francisco Congestion Management Program has determined that

- ★ During the morning peak hour, vehicles traveled in 1993 from Fremont (actually First) Street at 32.2 miles per hour (LOS E), and from TI to Fremont Street at 50.8 miles per hour (LOS D);
- ★ During the evening peak, vehicles traveled from TI to First Street at 37.7 miles per hour (LOS E);
- ★ **The only trip on this segment that was that was at LOS F was during the evening peak hour for vehicles traveling from Fremont Street to TI.**

Beyond reasons why speed or delay is normally a superior measure of congestion, the additional traffic merging that this Project will generate makes volume a particularly inappropriate measure, especially in the TI-Toll Plaza segment. TI/YBI traffic must merge with eastbound traffic that is controlled during peak hours by meters. The purpose of metering is to enable traffic to flow smoothly downstream by creating and managing upstream delays. TI/YBI traffic has the advantage of joining the free flow, in effect without have to suffer the delays that made it possible. The unmetered entry of a large number of Project vehicles into otherwise freely flowing Bridge traffic will deprive vehicles that were previously delayed by upstream metering to be delayed again. Many East Bay commuters will be impacted by Project traffic that undermines the effectiveness of metering as a traffic management policy. The resulting impact of TI/YBI vehicles on Bridge LOS will be substantially worse than if the same number of vehicles had been added upstream of the metering lights.

There is a similar conflict with the highly successful HOV traffic management policies for the Bridge.¹¹ There are strong and effective Caltrans policies that prioritize HOVs on the Bridge, including dedicated lanes at the Toll Plaza and exemption from tolls. When TI/YBI vehicles merge into Bridge traffic, HOVs forfeit a portion of their advantage over SOVs because they have no advantage in dealing with this obstruction. Allowing Project vehicles unmetered access to the Bridge conflicts with the priority that current Bridge policies give to peak hour HOVs. (Bridge HOV lanes operate on weekdays between 5a.m. (not 6 a.m. as stated on page 3-54) and 10a.m.; and between 3p.m. and 7p.m (not 6p.m.).

The weakening of the Caltrans HOV program should be considered an impact in itself since Appendix G of CEQA Guidelines state flags “conflict with adopted policies, plans, or programs supporting alternative transportation.”

¹¹ Caltrans District 4 HOV Report for 2002 states that 67% of the people traveling on the Bridge from Oakland in the a.m. peak are in high occupancy vehicles – a proportion higher than anywhere else in the Bay Area.

3. **Inconsistent Baseline of Comparison:** The choice of 1993 as the baseline for analysis is not a problem in and of itself. The City complied with most of the conditions that CEQA imposes on agencies that choose to use the date that the decision to close a base became final instead of the only other option, the date of the NOP (September 24, 1996). The notice of the public hearing on this decision should be included in the DEIR, as well the response from Caltrans.

However, the decision to use of a *mix of baselines*, including those not authorized by CEQA is a problem. It undermines the consistent comparison of conditions that CEQA intends to inform the public and actions of decisionmakers. At the time the City notified other agencies and the public about the earlier baseline it was intending to use, the range of dates was not more than a couple of years. By publication of the DEIR, a decade separated the 1993 baseline from actual existing conditions. DEIR use of virtually any date in between (and in some cases even earlier than 1993) created problems that did not exist at the time of the Notice.

The discussion of Public Services and population illustrates the problem. A description of Navy services in 1993 is combined with a description of City services that is “the most recent available.” Population information dates back to 1990 (as a proxy for 1993). What is missing from the DEIR is any information about the ratio of service providers to services and population – the conventional measure of adequacy. The mix of baselines does not allow for such a comparison, which is in fact not provided by the DEIR.

The most serious problem, however is that the DEIR does not make the necessary adjustments that an obsolete baseline imposes. The analysis needs to be clear in its identification of impacts by comparing conditions at buildout of the Project (or buildout of phases) to those at the baseline date. Changes to condition occurring between those dates should be part of the cumulative analysis, not part of the determination of impacts.

This DEIR creates hopeless confusion when it discusses impacts in the context of “updated” of “existing” conditions, especially when it is not clear whether “existing” means 1997, 2000, or 2002. It then becomes unclear what conditions the Project is being compared to. In the analysis of freeway impacts, for example, the critical comparison of the Project to 1993 conditions is buried in Table E-19, which primarily focuses on sections of the freeway between the ramps. This data is not discussed in the text and does not match up with the analysis; it records conditions in only part of the ROI. It does not match data provided by the San Francisco’s congestion management agency, the San Francisco Transportation Authority (which did not receive a copy of this DEIR). Yet it is the critical comparison with 1993 baseline conditions.

4. **The Criterion of Significance writes off already impacted conditions:** There are at least three serious problems with the sole Criterion of Significance listed by the DEIR for freeway impacts: *causing a substantial increase in traffic volumes that previously operated at acceptable levels of service.*

The first problem with the DEIR Criterion of Significance for the regional transportation system is that it precludes any effect of the Project - no matter how damaging to the environment - from

qualifying as an impact if traffic is already at LOS F. This problem is compounded by an ROI that is too small to capture Project impacts.

The second problem is that impacts other than increases in volume – such as an increase in accidents – are screened out of consideration.

The third problem is that this threshold for freeway impacts focuses specifically on traffic volume. Using volume results is a threshold that is inconsistently related to the problem, which is delay. Volume is particularly unsuited to serving as a threshold because the relationship between delay and volume is non-linear; i.e., an increase in volume under highly congested conditions is likely to be associated with an improved LOS based on speed or delay.

Conspicuously missing from the Significance Criteria for regional and freeway traffic is the standard suggested by CEQA Guidelines, that a Project would cause changes that “*Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.*” Unlike the standard in this DEIR, the CEQA standard accounts for the impacts of adding more traffic to regional roadways, including those that are operating at unacceptable levels. It does not make the irresponsible assumption implied by the DEIR criterion that a project that makes a bad situation worse has no impacts, and hence does not need to be modified with mitigations.

Also missing are criteria addressing longer queues at the Toll Plaza and San Francisco on-ramps and an increase in the peak period – mentioned in the text,¹² but omitted from consideration as an impact.

5. No Analysis of Traffic Safety on the Bridge: The failure to include hazardous conditions among the Criteria of Significance is mirrored by the failure of the DEIR to address the potential for accidents throughout the ROI. It is astonishing that the DEIR does not examine the issue of rear-end collision on the Bridge itself. The DEIR examines safety problems only on the ramps connecting TI and YBI to the Bridge, further reducing the ROI for this impact, in effect, to exclude even the Bridge. This is inexcusable for a Project whose traffic must enter a free-flowing segment of the freeway system via seriously substandard ramps. The DEIR must include the results of a full safety analysis in order to gain an understanding of and to propose effective mitigations of the hazard impacts.

6. Token analysis of cumulative impacts: The DEIR concludes that there will be cumulative impacts because increased East Bay-San Francisco trips will increase peak hour volume on the Bridge¹³. The cumulative analysis also acknowledges – but does not quantify the cumulative impacts of increased Bridge traffic would include longer queues at the Toll Plaza and San Francisco on-ramps (unspecified) and an expanded peak period.

The analysis of cumulative impacts is perfunctory. The 2-paragraph discussion of cumulative impacts does not include a quantitative analysis of these impacts. Since longer queues and the

¹² Page 4-63, page 4-69

¹³ Page 5-11

spreading of the peak period were not analyzed as a Project impact, it is not possible to glean from this EIR the extent to which the Project contributes to the cumulative impacts.

Table ES-1, the Summary of Impacts omits mention of this unmitigable cumulative impact on regional traffic systems. The DEIR includes no serious effort to mitigate the Project's cumulative impacts, but simply refers to the vague measures proposed to mitigate the Project's direct impacts.

The DEIR's disinterest in cumulative freeway impacts is especially egregious in the case of this DEIR because of its 10-year old baseline. In a more typical EIR, cumulative impacts have to take into account changes between a time close to existing conditions through Project buildout. Since the baseline for this Project is 1993, cumulative changes include those occurring over the past decade as well. Deterioration some of the LOS on freeway segments and arterials that serve the Bridge during this period has been severe, but the direction of change has not been consistent. Conditions on some sections of the freeway system have improved while they have worsened on others. See Attachments F –M. The cumulative impact analysis of the Project should have two components: first, an accounting of changes since 1993 to the present. This should be the platform for estimating impacts at Project buildout (2020).

The cavalier treatment of the cumulative impact on the freeway system is also of special concern because this DEIR is a Program EIR that the City intends to use as the platform for environmental review of the future Redevelopment Plan, as well as for tiered review of subsequent development projects.. Certifying the cursory treatment of cumulative Bridge impacts provided by this program EIR, and adopting findings of overriding need could dispose of this issue for all time and obviate the need for serious efforts to mitigate impacts that will affect people throughout the region. See Attachment A.

7. Vague and ineffectual mitigation measures: The absence of a quantitative analysis of cumulative impacts on the regional transportation system is mirrored by mitigation measures that are uncertain commitments because (i)they are non-specific, (ii) they defer the selection of actions to the future, (iii)do not set performance standards, or (iv)call for commitments by parties over whom the Lead Agency has no control.

The mitigation measure for impacts to Bridge operations¹⁴ gives the appearance of a performance standard but key concepts are left undefined. The mitigation appears to make a commitment to increase TDM and transit if the Project contributes to increasing congestion on the bridge. Does this mean if traffic volumes increase? If LOS deteriorates? How will the Project's share of the problem be determined? What is meant by linking implementation to the development program? That the developer will pay for program enhancements? Or that development will go on hold until commitments are in place to provide transit?

¹⁴ page 4-79

Trip Generation Data

The trip generation totals presented in the DEIR are closely tied to specific features and assumptions about the Reuse Plan that cannot be incorporated into the redevelopment plan, and that do not govern the Marina Project. The assumptions used to calculate the Project's trip generation rate would systematically undercount vehicle trips if the mix of land uses varies to any degree from the development program for the Maximum Alternative and Reuse Plan goals and objectives are not fully implemented. Since the redevelopment plan will not resemble the Reuse Plan, and since it is highly unrealistic to assume that the transportation goals and objectives will all be achieved, environmental review of the redevelopment plan must not rely on these trip generation rates.

The following exemplify some of the unrealistic assumptions:

- 50% of daily person-trips to be made by ferry¹⁵ - This number appears to reflect the DEIR assumptions that more than 40% of weekday person trips will be generated by the "themed attraction".¹⁶ Even so it appears to be unrealistic, given that there are no plans for some of the terminals projected and there is, as yet, no guarantee that ferry service will serve Treasure Island.
- The vehicle occupancy rate projected by Table 4-8 (See Attachment B) does not correspond to the realities of the Bay Area. Occupancy rates higher than 2 are unrealistic under Project conditions where there are no incentives for trips originating at TI, such as HOV lanes or toll exemption, and considering that most of the visitors are expected to travel by ferry. Vehicle occupancy rates for the Project are out of scale with occupancy rates on freeway segments *with* HOV incentives as Attachment C illustrates.

Truck Traffic

The DEIR lacks a serious discussion of truck traffic. The expectation that construction traffic can be limited to hours before 5 a.m., between 10 a.m. and 3 p.m., and after 7 p.m. is realistic. The cumulative impact of truck traffic caused by the combined effects of Bridge construction and environmental cleanup need to be analyzed.

¹⁵ page 4-70

¹⁶ pages 4-65 and E-35

**Critique of Transportation Mitigation Measures
 as Applied to Regional Transportation System Impacts**

Page	Mitigation	Critique/Questions
4-75; 4-61	Implement TDM measures to encourage transit including limits on parking and road pricing; also establish ferry ridership targets for new users; require employers to provide incentives to reduce vehicular demand (See TDM assumptions...	TDM measures lack concrete targets or performance standards; i.e., what limits on parking? What ridership targets? Reduce vehicular demand by how much? Are all of the TDM measures on page 4-61 specifically required actions that would be tracked by the mitigation monitoring programs.
4-75	Implement additional TDM measures such as...	No commitment to specific action
4-75-6	Work with appropriate transite authorities to ensure that planned services are implemented; “insure that development will occur with adequate transit service...”	No outcome specified; Lead Agency lacks authority to ensure transit service; Does this mean that transit must be in place prior to approval of all development?
4-79	Construct new westbound ramp on east side of YBI – Not in Caltrans plans, no funds available	This mitigation is not feasible.
4-79; 4-67	“Implementation of Reuse Plan transportation goals and objectives will ensure that impacts are reduced to a less-than-significant level” Link transit service to development	The goals and objectives for regional access and transit system are not within the authority of the Lead Agency to implement; o Does this mean all development would be delayed if there are no transit commitments, or just public uses?
4-80	Re-establish transit service with East Bay	Not within the authority of Lead Agency to implement; no agreement from implementing agencies; infeasible
4-85	Expand ferry service between East Bay and SF	Not within the authority of Lead Agency to implement; no agreement from implementing agencies; infeasible

Attachment B

Occupancy Rates Assumed in Table 4-8

	daily		a.m.		p.m.	
<u>person trips</u>	occup		occup		occup	
auto	19570	2.1	1645	1.9	2660	1.9
vanpool/other/	5890	5.9	310	5.2	610	5.1
bus	9600	30.0	700	28.0	1280	28.4
ferry	34635		1530		3900	
internal	48285		2835		4830	
<u>vehicle trips</u>						
auto	9210		875		1390	
vanpool/other/	995		60		120	
bus	320		25		45	

Occupancy Rate: Comparison of HOV, Mixed, and Overall

ALAMEDA-80 Westbound P.M. Peak Period

Contra Costa County Line to Powell Street Typical data for 2002
(5)

HOV Lane occupancy rate	2.2 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh
Overall occupancy (incl. buses)	1.3 persons/veh

ALAMEDA-80 Eastbound P.M. Peak Period

Powell Street to Contra Costa County Line Typical data for 2002
(5)

HOV Lane occupancy rate	3.7 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh
Overall occupancy (incl. buses)	1.6 persons/veh

source: California Department of Transportation, District 4 Oakland, Office of Highway Operations, HOV Lanes in the Bay Area, 2002

**Characterization of Project Impact on San Francisco-Oakland Bay Bridge Traffic
 (Non-Cumulative)**

Page	Section	Descriptive Variable	Text
ES 11-12	Environmental Impacts and Mitigation (Chapter 4)	None	The conclusion that the Project would have a significant impact on Bridge traffic conditions is not mentioned in this summary. The summary focuses on impacts on ramps.
ES 27	Table ES-1	None	The table lists "SFOBB/I-80 operations" as an impact issue and designates it as a significant and mitigable impact for all alternatives except the No Action. No description of what the impact is, just the location
4-59	Significance Criteria	traffic volume	"...an alternative would have a significant transportation, circulation, and parking impact if its implementation would... increase substantially the traffic volumes along freeway segments or ramps that previously operated at acceptable levels of service."
4-62	Table 4-7	None	The table lists "SFOBB/I-80 operations" as an impact issue and designates it as a significant and mitigable impact for all of the alternatives except the No Action. No description of what the impacts are.
4-79	Impact: SFOBB operations	LOS (unclear if based on volume to capacity or average speed)	"Under the Maximum Development Alternative, the increased traffic demand on the SFOBB would cause the segment of the westbound SFOBB from Treasure Island to downtown San Francisco to deteriorate from LOSD to LOSF during the last hour of the AM peak and from LOS B to LOS E or LOSF during the PM peak period. This would result in a significant but mitigable impact."
E-47	Table E-17 Summary of SFOBB/I-80 Weekday and Weekend Peak Hour Traffic Conditions (<u>covers segment east of the tunnel only</u>)	Speed (and LOS equivalent)	<ul style="list-style-type: none"> Shows Weekday Eastbound speed as 57 m/hr (LOS B) for 1993/94 baseline and for all alternatives. Shows Weekday Westbound speed as 45 mi/hr (E) for 1993/94, 3 m/hr (E) for all alternatives except the Maximum, for which no number is provided.

Comparative Changes in Traffic Volume and LOS 1993 - 2001
Fremont Street - Treasure Island Segment

Segment between TI and Fremont Street	92/93 LOS	92/93 Average Speed (m/hr based on travel time)	2001 LOS	2001 Average Speed (m/hr based on travel time)	Speed: 2001 compared to 1993
A.M.					
Eastbound:	E	32.2	F	28.8	12% slower
Westbound:	D	50.8	E	36.5	39% slower
P.M.					
Eastbound:	F	26.3	E	31.6	17% faster
Westbound:	E	37.7	F	21.6	75% slower
AVERAGE	E	36.8	F	29.6	19% slower

Source: San Francisco Transportation Authority, Congestion Management Program, 2001

Traffic Volume Change 1993-2001

Segment between TI and Fremont Street	1993 (vehicles)	2001 (vehicles)	Change In Traffic Volume between 1993 And 2001
Both directions, a.m. and p.m. peaks	22,800	18,600	18.2% decrease

Source: Caltrans Traffic Counts: 1993, 2001

Excerpts from SF Congestion Management Plan comparing Segments serving the Bridge 1993-2001 A.M.

Table I
 Results of Roadway Level of Service (LOS) Monitoring - A.M. 1991-2001

Name	From	To	Class	Travel Dir.	Length (mi)	AvSp 91	LOS 91	AvSp 92/3	LOS 92/3	AvSp 95	LOS 95	AvSp 97	LOS 97	AvSp 99	LOS 99	AvSp 2001	LOS 2001	2001 LOS Changes
FREEWAY SEGMENTS INBOUND																		
I-280	C & C Limit	US 101		E	4.14	22.9	F	43.0	E	27.3	F					43.2	D	F to D
	U.S. 101	6th/Brannan		NE	3.36	section closed		29.1	F							30.5	E	F to E
US 101	C & C Limit	I-280		N	1.6	10.9	F	47.2	D	31.0	E	30.1	E	35.7	E	44.8	D	E to D
	I-280	I-80		N	2.3	21.4	F	21.2	F							28.1	F	
	I-80	Fell/Laguna		NW	1.6	18.7	F	45.4	E	44.8	E	37.6	E	36.9	E	section closed		
I-80	Treasure I.	Fremont		S	2.13	17.5	F	32.2	E	26.5	F					28.8	F	
	Fremont	US 101		SW	2.13	48.1	D	33.3	E	37.9	E	32.7	E	40.4	E	25.9	F	E to F
FREEWAY SEGMENTS OUTBOUND																		
I-280	6th/Brannan	US 101		W	3.4	section closed		51.9	D	48.4	D	54.8	C			47.3	C	
	US 101	C & C Limit		SW	4.1	55.7	C	57.5	B							51.5	C	B to C
US 101	Fell/Laguna	I-80		S	1.3	13.5	F	17.9	F							section closed		
	I-80	I-280		S	2.3	45.8	E	53.6	D	36.4	E	42.3	E	44.7	D	40.1	E	D to E
	I-280	C & C Limit		S	2.1	53.3	D	45.6	E	36.3	E	34.1	E	39.0	E	33.3	E	
I-80	US 101	Fremont		N	2.13	18.6	F	53.6	D	38.0	E	32.4	E	28.8	F	18.3	F	
	Fremont	Treasure I.		NE	2.13	50.6	D	50.8	D	39.9	E	40.3	E	30.5	F	36.5	E	F to E

NOTE: Average Speed (AvSp) is an indication of the average travel time. All sample times for each segment were averaged to obtain the AvSp.
 * indicates the Level of Service 'C' or better for that particular segment
 ~ indicates an 'overlap' in segments because of changes in the segmentation boundaries from 1991.

P.M.

Table II
 Results of Roadway Level of Service (LOS) Monitoring - P.M. 1991-2001

Name	From	To	Class	Travel Dir.	Length (mi)	AvSp 91	LOS 91	AvSp 92/3	LOS 92/3	AvSp 95	LOS 95	AvSp 97	LOS 97	AvSp 99.0	LOS 99	AvSp 2001	LOS 2001	2001 LOS Changes
FREEWAY SEGMENTS INBOUND																		
I-280	C & C Limit	US 101		E	4.14	54.9	C	59.1	B					0.0		45.0	D	B to D
	U.S. 101	6th/Brannan		NE	3.36	section closed		46.3	D	51.0	D	48.6	D	38.6	E	38.9	E	
US 101	C & C Limit	I-280		N	1.81	20.6	F	72.4	A							43.2	D	A to D
	I-280	I-80		N	2.28	24.6	F	45.8	E	31.8	E	40.9	E	6.2	F	24.0	F	
	I-80	Fell/Laguna		NW	1.64	12.2	F	15.3	F							section closed		
I-80	Treasure I.	Fremont		S	2.13	27.5	F	26.3	F							31.6	E	F to E
	Fremont	US 101		SW	2.13	18.6	F	21.5	F							24.9	F	
FREEWAY SEGMENTS OUTBOUND																		
I-280	6th/Brannan	US 101		E	3.36	section closed		22.9	F							30.9	E	F to E
	US 101	C & C Limit		SW	4.14	51.9	D	56.6	B							44.5	D	B to D
US 101	Fell/Laguna	I-80		S	1.32	18.8	F	13.4	F							section closed		
	I-80	I-280		S	2.28	31.6	E	46.3	D	47.2	D	35.5	E	32.4	E	44.4	D	E to D
	I-280	C & C Limit		S	2.13	48.1	D	51.1	D	30.8	E	39.2	E	49.0	D	41.6	D	
I-80	US 101	Fremont		N	2.13	19.0	F	25.9	F							14.8	F	
	Fremont	Treasure I.		NE	2.13	29.3	F	37.7	E	34.6	E	45.6	E	23.1	F	21.6	F	

**EXCERPTS FROM ALAMEDA COUNTY CONGESTION MANAGEMENT
 PLAN -SEGMENTS SERVING THE BRIDGE 1993 AND 2000**

Attachment G

LEVEL-OF-SERVICE STANDARDS

Table 8 — Level-of-Service Trends on the CMP-designated System (P.M. Peak Period)

ROAD	DIR	LIMITS	DIST. (mi.)	MILES PER HOUR									
				'91 Aug	'91 Oct	'92	'93	'94	'95	'96	'97	'98	'00
I-80	EB	Bay Bridge Tollgate to Contra Costa line	6		23	20	21	22	20	21	21	20	27
I-80	WB	Contra Costa line to Bay Bridge Tollgate	6	26	25	24	22	23	28	25	25	28	18
I-580	EB	I-238 to I-205	31	-	56	55	55	55	50	55	na	na	41
I-580	WB	I-205 to I-238	31	-	57	56	55	57	56	61	na	na	55
I-580	EB	I-80 to I-238	16	-	53	52	49	44	48	53	42	60	63
I-580	WB	I-238 to I-80	16	-	58	55	56	51	50	52	54	61	63
I-680	NB	Scott Creek Rd. to Alcosta Blvd.	21	-	58	57	55	57	55	52	49	51	58
I-680	SB	Alcosta Blvd. to Scott Creek Rd.	21	-	59	58	57	55	56	61	56	67	63
I-880	NB	Dixon Landing Rd. to I-980	30	42	45	44	47	43	43	46	40	38	48
I-880	SB	I-980 to Dixon Landing Rd.	30	47	43	40	42	38	43	46	43	50	49
SR 13	NB	Mountain Blvd to Hiller Dr.	6	51	54	50	46	49	51	48	44	53	51
SR 13	SB	Hiller Dr. to Mountain Blvd	6	57	56	59	57	53	49	47	57	59	59
SR 24	EB	I-580 to Fish Ranch Rd.	5	29	30	29	30	30	29	24	30	39	33
SR 24	WB	Fish Ranch Rd. to I-580	5	53	54	58	53	54	58	50	48	60	57

P.M.

LOS	Average Speed m/hr
A	≥60
B	≥55
C	≥49
D	≥41
E	≥30
F	<30

**San Francisco Arterials Serving the Bridge, 1993 and 2001
 A.M.**

Table I																		
Results of Roadway Level of Service (LOS) Monitoring - A.M. 1991-2001																		
Name	From	To	Class	Travel Dir.	Length (mi)	AvSp 91	LOS 91	AvSp 92/3	LOS 92/3	AvSp 95	LOS 95	AvSp 97	LOS 97	AvSp 99	LOS 99	AvSp 2001	LOS 2001	2001 LOS Changes
	Market	Washington	3	N	0.23		*	19.9	B							23.0	B	
Duboce/Division	Market	Mission	3	E	0.34		*	7.7	E	9.1	D	3.0	F	8.8	E	5.5	F	E to F
	Mission	Market	3	W	0.34		*	10.7	D	11.7	D	9.4	D	13.5	C			
	Mission	Potrero	3	E	0.64	9.9	D	12.0	D	11.5	D	10.4	D	12.6	D	13.0	C	D to C
	Potrero	Mission	3	W	0.64	9.9	D	17.1	C							11.3	D	C to D
Embarcadero	Townsend	North Point	3	N			*	21.2	B							14.5	C	B to C
	North Point	Townsend	3	S			*	15.2	C							13.8	C	
Evans	C. Chavez	Toland	3	S	0.18		*	14.3	C							15.4	C	
	Toland	C. Chavez	3	N	0.18		*	12.1	D	16.5	C					10.7	D	C to D
	Toland	3rd Street	3	S	0.53		*	17.0	C							23.3	B	C to B
	3rd Street	Toland	3	N	0.53		*	25.9	A							21.7	B	A to B
	C. Chavez	3rd Street	3	S	0.71		*	16.3	C							20.4	B	C to B
Evans	3rd Street	C. Chavez	3	N	0.71		*	19.9	B							17.0	C	B to C
Fell	Gough	Market	3	E	0.30		*	11.6	D	12.0	D	4.3	F	8.1	E	7.6	E	
	Gough	Laguna	3	W	0.20		*	26.7	A							11.8	D	A to D
	Laguna	Stanyan	3	W	1.55		*	19.0	B							24.5	B	
Franklin	Market	Pine	3	N	1.06	8.5	E	13.3	C							11.5	D	C to D
	Pine	Lombard	3	N	0.82		*	14.0	C							26.3	A	C to A
Fremont	Harrison	Market	3	N	0.85		*	6.4	F							11.3	D	F to D
Fulton	Park Pres.	10th Avenue	3	E	0.20		*	16.7	C							15.2	C	
	10th Avenue	Park Pres.	3	W	0.20		*	14.2	C							10.4	D	C to D
	10th Avenue	Arguello	3	E	0.53		*	22.4	B							16.3	C	B to C
	Arguello	10th Avenue	3	W	0.53		*	22.0	B							28.7	A	B to A
	Arguello	Masonic	3	E	0.66	9.8	D	18.6	C							11.5	D	C to D
	Masonic	Arguello	3	W	0.66		*	15.9	C							16.2	C	
Geary	Great Hwy.	25th Avenue	3	E	1.47		*	24.2	B							23.5	B	
	25th Avenue	Great Hwy.	3	W	1.47		*	28.3	A							26.0	A	
	25th Avenue	Arguello	3	E	1.42		*	21.6	B					10.6	D	20.7	B	D to B
	Arguello	25th Avenue	3	W	1.42		*	21.3	B							13.7	C	
	Arguello	Gough	3	E	1.89		*	25.3	A							24.6	B	
	Gough	Arguello	3	W	1.89		*	23.8	B							24.7	B	
	Market	Gough	3	W	1.21		*	12.3	D	15.4	C				7.2	E		E to C
Geneva	Phelan	Cayuga	3	E	0.57		*	15.0	C							20.4	B	C to B
	Cayuga	Phelan	3	W	0.57		*	4.5	F	15.5	C					15.0	C	
	Cayuga	Paris	3	E	0.40	10.4	D	11.7	D	13.0	C					16.1	D	C to D
	Paris	Cayuga	3	W	0.40	10.4	D	11.6	D	13.3	C					18.7	C	
	Paris	Santos	3	E	1.18		*	29.7	A							25.0	B	A to B
	Santos	Paris	3	W	1.18		*	27.4	A							27.3	A	
Golden Gate	Masonic	Franklin	3	E	1.36		*	19.3	B							17.2	C	B to C
	Franklin	Market	3	E		12.2	D	16.9	C							13.2	C	
Gough	Pine	Geary	3	S	0.27	9.5	D	25.6	A							28.4	A	
	Geary	Golden Gate	3	S	0.34		*	20.1	B							20.1	B	
	Golden Gate	Market	3	S	0.57	8.3	E	12.8	D	11.1	D	6.5	F	18.9	C			

**TABLES ON LEVEL OF SERVICE:
 SF CONGESTION MANAGEMENT NETWORK – 1993 and 2001:**

**Table 4-1
 2001 Roadway Level of Service (LOS) Monitoring Results – LOS F Segments**

A.M. Peak Period – Arterials

CMP Route	Limits	Previous Results	2001 Study Results	Comments
6 th Street Northbound	Brannan to Market	1991: C or better 1993: 13.8 mph (C)	Avg Speed = 4.7 mph LOS = F	This segment requires follow-up monitoring per CMP procedures.
Duboce/Division Eastbound	Market to Mission	1991: C or better 1993: 7.7 mph (E) 1995: 9.1 mph (D) 1997: 3.0 mph (F) 1999: 8.8 mph (E)	Avg Speed = 5.5 mph LOS = F	Same as above.

A.M. Peak Period – Freeways

CMP Route	Limits	Previous Results	2001 Study Results	Comments
US 101 Northbound	I-280 to I-80	1991: 21.4 mph (F) 1993: 21.2 mph (F)	Avg Speed = 28.1 mph LOS = F	This segment was at LOS F during the initial monitoring cycle (1991). Per state law, this segment is exempted from the LOS E standard and does not constitute a deficiency.
I-80 Southbound	Treasure Island to Fremont	1991: 17.5 mph (F) 1993: 32.2 mph (E)	Avg Speed = 28.8 mph LOS = F	Same as above.
I-80 Southwest	Fremont to US 101	1991: 48.1 mph (D) 1993: 33.3 mph (E)	Avg Speed = 25.9 mph LOS = F	This segment requires follow-up monitoring per CMP procedures.
I-80 Northbound	US 101 to Fremont	1991: 18.6 mph (F) 1993: 53.6 mph (D) 1995: 38.0 mph (E) 1997: 32.4 mph (E) 1999: 28.8 mph (F)	Avg Speed = 16.3 mph LOS = F	This segment was at LOS F during the initial monitoring cycle (1991). Per state law, this segment is exempted from the LOS E standard and does not constitute a deficiency.

San Francisco Transportation Authority, “San Francisco Congestion Management Plan”, November 2001, available on-line at http://www.sfcta.org/pdf%20files/CH_04.pdf, 10-12-03.

LOS ON SAN FRANCISCO CONGESTION MANAGEMENT NETWORK 1993 - 2001

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P.M. Peak Period – Arterials

CMP Route	Limits	Speed Results	2001 Study Results	Comments
1 st Street Southbound	Market to Harrison	1991: 1.2 mph (F) 1993: 15.5 mph (C)	Avg Speed = 2.1 mph LOS = F	This segment was at LOS F during the initial monitoring cycle (1991). Per state law, this segment is exempted from the LOS E standard and does not constitute a deficiency.
5 th Street Southbound	Market to Brannan	1991: 7.9 mph (E) 1993: 13.5 mph (C)	Avg Speed = 5.2 mph LOS = F	This segment requires follow-up monitoring per CMP procedures.
6 th Street Southbound	Market to Brannan	1991: 6.7 mph (F) 1993: 11.5 mph (D) 1999: 9.5 mph (D)	Avg Speed = 6.8 mph LOS = F	This segment was at LOS F during the initial monitoring cycle (1991). Per state law, this segment is exempted from the LOS E standard and does not constitute a deficiency.
6 th Street Northbound	Brannan to Market	1991: C or better 1993: 12.7 mph (D) 1995: 12.7 mph (D) 1997: 11.2 mph (D) 1999: 9.0 mph (D)	Avg Speed = 6.4 mph LOS = F	This segment requires follow-up monitoring per CMP procedures.
Brannan Eastbound	Division to 9 th Street	1991: C or better 1993: 25.4 mph (A)	Avg Speed = 4.5 mph LOS = F	Same as above.
Brannan Eastbound	6 th Street to 5 th Street	1991: C or better 1993: 14.3 mph (C)	Avg Speed = 5.5 mph	Same as above.
Brannan Westbound	5 th Street to 6 th Street	1991: C or better 1993: 11.7 mph (D) 1995: 11.6 mph (D) 1997: 10.1 mph (D) 1999: 8.6 mph (E)	Avg Speed = 5.6 mph LOS = F	Same as above.
Brannan Westbound	9 th Street to Division	1991: C or better 1993: 13.1 mph (C)	Avg Speed = 1.8 mph LOS = F	Same as above.
Broadway Westbound	Embarcadero to Montgomery	1991: C or better 1993: 15.4 mph (C) 1999: 9.6 mph (D)	Avg Speed = 4.4 mph LOS = F	Same as above.

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CMP Route	Limits	Speed Results	2001 Study Results	Comments
Embarcadero Northbound	Townsend to North Point	1991: C or better 1993: 16.7 mph (C)	Avg Speed = 6.4 mph LOS = F	Same as above.
Fremont Northbound	Harrison to Market	1991: C or better 1993: 9.3 mph (D) 1995: 10.6 mph (D) 1997: 16.6 mph (C)	Avg Speed = 3.2 mph LOS = F	Same as above.
Gough Southbound	Pine to Geary	1991: 9.5 mph (D) 1993: 21.8 mph (B)	Avg Speed = 6.5 mph LOS = F	Same as above.
Main Northbound	Mission to Market	1991: C or better 1993: 9.8 mph (D) 1999: 7.7 mph (E)	Avg Speed = 5.4 mph LOS = F	Same as above.
Market/Portola Eastbound	Guerrero to Van Ness	1991: 8.3 mph (E) 1993: 17.9 mph (C) 1999: 7.4 mph (E)	Avg Speed = 6.7 mph LOS = F	Same as above.
O'Farrell Eastbound	Mason to Market	1991: 6.9 mph (F) 1993: 7.9 mph (E)	Avg Speed = 4.2 mph LOS = F	This segment was at LOS F during the initial monitoring cycle (1991). Per state law, this segment is exempted from the LOS E standard and does not constitute a deficiency.

P.M. Peak Period – Freeways

CMP Route	Limits	Speed Results	2001 Study Results	Comments
US 101 Northbound	I-280 to I-80	1991: 24.6 mph (F) 1993: 45.8 mph (E) 1995: 31.8 mph (E) 1997: 40.9 mph (E) 1999: 6.2 mph (F)	Avg Speed = 24.0 mph LOS = F	This segment was at LOS F during the initial monitoring cycle (1991). Per state law, this segment is exempted from the LOS E standard and does not constitute a deficiency.
I-80 Southwest	Fremont to US 101	1991: 18.8 mph (F) 1993: 21.5 mph (F)	Avg Speed = 24.9 mph LOS = F	Same as above.
I-80 Northbound	US 101 to Fremont	1991: 19.0 mph (F) 1993: 25.9 mph (F)	Avg Speed = 14.8 mph LOS = F	Same as above.
I-80 Northeast	Fremont to Treasure Island	1991: 29.3 mph (F) 1993: 37.7 mph (E) 1995: 34.6 mph (E) 1997: 45.6 mph (E) 1999: 23.1 mph (F)	Avg Speed = 21.6 mph LOS = F	Same as above.

San Francisco Transportation Authority, “San Francisco Congestion Management Plan”, November 2001, available on-line at http://www.sfcta.org/pdf%20files/CH_04.pdf, 10-12-03.

ALAMEDA COUNTY CONGESTED FREEWAY SEGMENTS

LOS “F” Segments in P.M. Peak Period

- * Oakland, I-80 eastbound from the Toll Plaza to I-580
- * Emeryville/Berkeley, I-80 eastbound from I-580 to University Avenue
- * Berkeley/Albany, I-80 eastbound from University Avenue to Central Avenue
- * Emeryville/Berkeley, I-80 westbound from University Avenue to I-580 split
- * Oakland, SR 24 eastbound from I-580 On Ramp to Fish Ranch
- * Oakland, I-80/I-580 Interchange from I-80 southbound to I-580 eastbound

LOS “F” Segments in A.M. Peak Period

- * Albany/Berkeley, I-80 westbound from Central Avenue to University Avenue
- * Oakland, I-80 westbound from the I-80/I-580 Split to the toll plaza
- * Oakland, I-80 westbound from the toll plaza to the San Francisco County line
- * Oakland, I-580 northbound from SR 24 to I-80/I-580 Split
- * Oakland, SR 24 eastbound from I-580 On Ramp to Fish Ranch

Alameda County Congestion Management Agency, “2002 Level of Service Monitoring”, prepared by Abrams Associates, available on-line at http://www.accma.ca.gov/pdf/2002_level_of_service.pdf, 10/12/03

Excerpt from

Table 7**Comparison of P.M. Peak Hour Travel Time Data & Speed on Selected Freeway Routes**

CMP Route	Direction	From	To	Length (miles)	1991	1992	1993	1994	1995	1996	1997	1998	2000	2002
I-80	<i>EB</i>	Tollgate	Central	6.35	15:56 23.5	18:24 20.4	18:12 20.6	17:19 21.7	18:32 20.2	18:23 20.8	16:37 20.8	18:50 20.2	14:18 26.6	19:45 19.3
	<i>WB</i>	<i>Central</i>	<i>Tollgate</i>	6.11	14:27 25.3	15:26 23.7	16:31 22.1	15:41 23.3	12:52 28.4	14:53 24.6	17:37 24.9	13:07 28.0	20:52 17.6	16:33 22.2
SR 24	<i>EB</i>	<i>I-580 (On)</i>	<i>Fish Ranch</i>	4.52	9:19 30.1	9:35 29.2	9:14 30.3	9:25 29.8	9:34 29.3	11:10 24.3	9:21 29.5	6:59 38.9	8:08 33.4	12:41 21.4
	<i>WB</i>	Fish Ranch	I-580 (On)	4.47	5:00 54	4:58 58	5:07 53	5:01 54	4:41 58	5:24 50	5:33 48	4:30 60	4:41 57	4:26 60.5

Alameda County Congestion Management Agency, "2002 Level of Service Monitoring", prepared by Abrams Associates, available on-line at http://www.accma.ca.gov/pdf/2002_level_of_service.pdf, 10/12/03

Excerpt from

Table 8

**Comparison of P.M. Peak Hour Travel Time Data & Speed on Selected Arterial Routes
 Alameda County CMP System (1991-2002)**

CMP Route	Direction	From	To	Length (miles)	1991	1992	1993	1994	1995	1996	1997	1998	2000	2002
MLK/Shattuck Ave	NB	SR 24	University	2.78	7:02 17.5	6:43 18.3	6:09 20.0	6:07 20.1	10:30 11.7	12:01 13.7	10:59 15.2	11:41 14.3	11:16 14.8	11:54 14.0
	SB	University	SR 24	2.76	10:07 16.4	9:12 18.0	9:06 18.2	9:59 16.6	10:55 15.2	10:26 15.7	10:21 16.0	10:45 15.4	12:01 13.8	12:45 13.0
University Avenue	EB	I-80 Off	Shattuck PI	2.05	7:02 17.5	6:43 18.3	6:09 20.0	6:07 20.1	5:50 21.1	7:07 17.2	7:27 16.5	7:21 16.7	8:05 15.2	7:36 16.2
	WB	Shattuck PI	I-80 Off	2.05	6:38 18.5	6:30 18.9	7:47 15.8	7:07 17.3	6:04 20.3	7:27 16.5	8:44 14.1	9:51 12.5	7:45 15.9	7:01 17.5

Alameda County Congestion Management Agency, "2002 Level of Service Monitoring", prepared by Abrams Associates, available on-line at http://www.accma.ca.gov/pdf/2002_level_of_service.pdf, 10/12/03

**BAY BRIDGE TRAFFIC COUNTS:
 COMPARISON OF PEAK AND DAILY VOLUME IN 1993 AND 2001
 BOTH DIRECTIONS**

Year	Location of Count	Back (Segment west of Count location)			Ahead (Segment east of Count location)		
		Peak Hr (a.m. and p.m.) (veh/hr)	Peak Month (veh/dayr)	Average Annual Daily (veh/day)	Peak Hr (a.m. and p.m.) (veh/hr)	Peak Month (veh/dayr)	Average Annual Daily (veh/day)
1993	TREASURE ISLAND; YERBA BUENA ISLAND	22,800	267,000	253,000	20,800	268,000	254,000
	OAKLAND, SAN FRANCISCO- OAKLAND BAY BRIDGE TOLL PLAZA	20,800	268,000	254,000	18,700	267,000	254,000
2001	TREASURE ISLAND; YERBA BUENA ISLAND	18,600	288,000	276,000	19,300	298,000	286,000
	OAKLAND, SAN FRANCISCO- OAKLAND BAY BRIDGE TOLL PLAZA	19,300	298,000	286,000	18,700	290,000	278,000
increase 1993 to 2001							
	TREASURE ISLAND; YERBA BUENA ISLAND	-4,200	21,000	23,000	-1,500	30,000	32,000
	OAKLAND, SAN FRANCISCO- OAKLAND BAY BRIDGE TOLL PLAZA	-1,500	30,000	32,000	0	23,000	24,000
% increase 1993 to 2001							
	TREASURE ISLAND; YERBA BUENA ISLAND	-18.4%	7.9%	9.1%	-7.2%	11.2%	12.6%
	OAKLAND, SAN FRANCISCO- OAKLAND BAY BRIDGE TOLL PLAZA	-7.2%	11.2%	12.6%	0.0%	8.6%	9.4%
average annual 1993 to 2001							
	TREASURE ISLAND; YERBA BUENA ISLAND	-2.3%	1.0%	1.1%	-0.9%	1.4%	1.6%
	OAKLAND, SAN FRANCISCO- OAKLAND BAY BRIDGE TOLL PLAZA	-0.9%	1.4%	1.6%	0.0%	1.1%	1.2%

Source: Caltrans <http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.htm>
<http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2002all.html>
 Source: San Francisco County Transportation Authority, Congestion Management Program, 2001
 Appendix IV, Tables I and II; available on-line <http://www.sfcta.org/pdf%20files/CMPCContents.pdf>, October 14, 2003