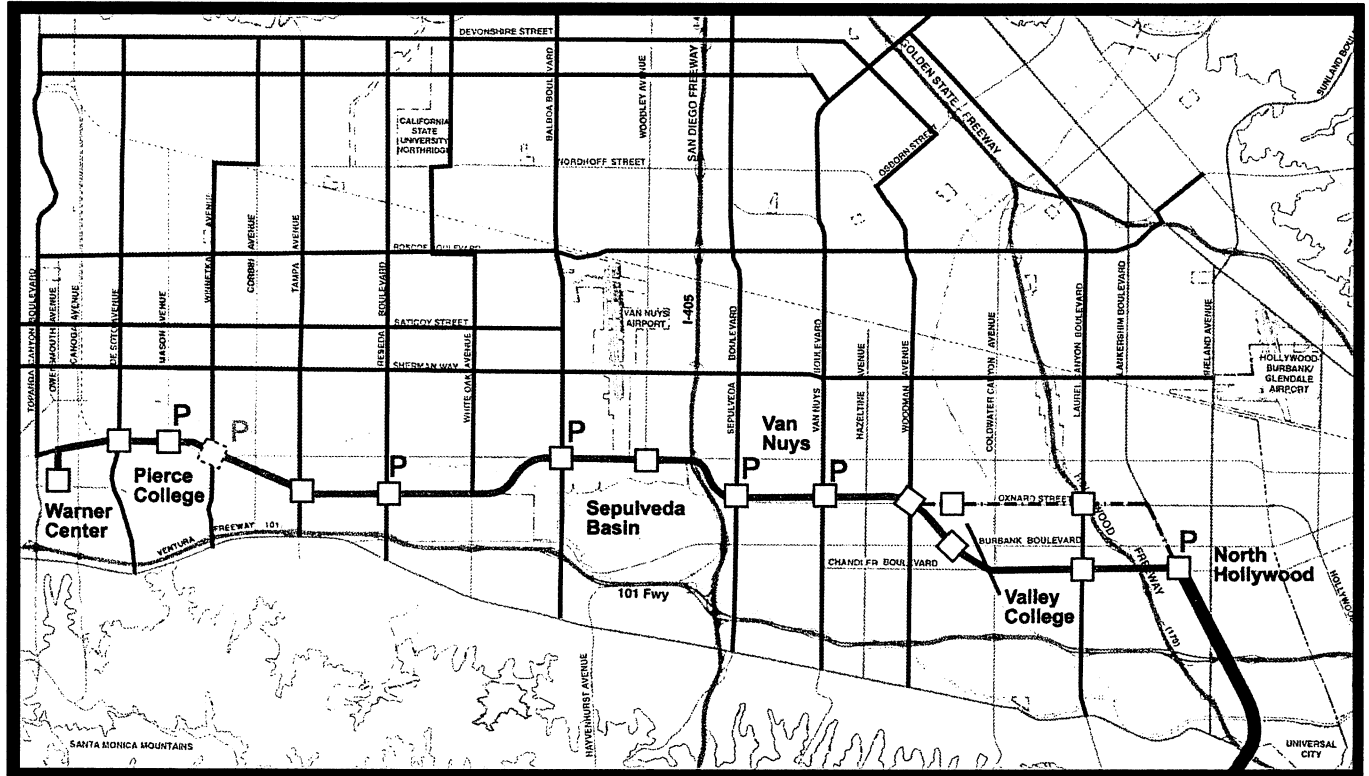


Draft Revised Final Environmental Impact Report Volume 4 – Chapter 8 Appendices



SAN FERNANDO VALLEY EAST-WEST TRANSIT CORRIDOR



Los Angeles County
Metro Metropolitan Transportation Authority (MTA)

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CHAPTER 8 - TECHNICAL APPENDICES

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NOT TO BE PUBLISHED IN THE OFFICIAL REPORTS

California Rules of Court, rule 977(a), prohibits courts and parties from citing or relying on opinions not certified for publication or ordered published, except as specified by rule 977(b). This opinion has not been certified for publication or ordered published for purposes of rule 977.

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA
SECOND APPELLATE DISTRICT
DIVISION SEVEN

CITIZENS ORGANIZED FOR SMART
TRANSIT,

Plaintiff and Appellant,

v.

LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION
AUTHORITY,

Defendant and Respondent.

B164434
(Consolidated with B166223)

(Los Angeles County
Super. Ct. No. BS 075103)

COURT OF APPEAL - SECOND DIST.

FILED

JUL 19 2004

JOSEPH A. LANE

Clerk

Deputy Clerk

APPEALS from a judgment and an order of the Superior Court of Los Angeles County. David Yaffe, Judge. Reversed with directions.

John A. Henning Jr. for Plaintiff and Appellant.

Lloyd W. Pellman, County Counsel, Steven Carnevale, Assistant County Counsel, and Ronald W. Stamm, Principal Deputy County Counsel; Demetriou, Del Guercio, Springer & Francis, Jeffrey Z. B. Springer, John E. Mackel III, and Stan M. Barankiewicz II, for Defendant and Respondent.

Citizens Organized for Smart Transit (“COST”) appeals from a judgment denying its petition for a writ of mandate that challenged the environmental impact report (“EIR”) prepared under the California Environmental Quality Act (“CEQA”) (Pub. Res. Code §¹ 21000 et seq.) for a \$300 million plus bus guideway project (“the Project” or the “busway”) crossing the San Fernando Valley (“the Valley”). The Los Angeles County Metropolitan Transit Authority (“MTA”) was the proponent of the Project and the public agency that approved it.

COST contends the draft and final EIRs were inadequate, the final EIR contained significant new information and should have been recirculated, further alternatives should have been considered, and MTA improperly segmented the project. COST also appeals from the order awarding costs to MTA relating to the preparation of the administrative record. COST contends it prepared the record. We reverse with directions to consider a further alternative.

GENERAL BACKGROUND

The Project is a major public transit improvement that will alleviate severe congestion in the Valley. If it were a separate city, the Valley would be the sixth largest city in the United States.

The Ventura Freeway, currently the major east-west transit corridor in the Valley, is operating at full capacity in both directions. By the year 2020, east-west Valley arterial streets are projected to be the most congested in the Valley, with Victory Boulevard, Vanowen Street and Sherman Way being severely congested.

¹ Unless otherwise noted, all statutory references are to the Public Resources Code.

I. History of the Project

In 1983, MTA's predecessor initiated a study of alternative transit routes for an east-west corridor through the Valley. The alternatives included the Southern Pacific Coast Mainline route (which became a Metrolink route), Sherman Way, the Los Angeles River, the MTA right-of-way ("MTA ROW"),² the Ventura Freeway, and Ventura Boulevard. In 1983, the MTA ROW was selected as the best route for a light rail line for system planning purposes.

A subsequent route refinement study included all the alternatives above except Sherman Way. Public opposition was voiced by residents along all five of the proposed routes. Following completion of an alternatives evaluation report, the MTA ROW and the Ventura Freeway were retained for further study. In 1990, a full-scale environmental analysis resulted in a final EIR adopting the MTA ROW as the preferred route for a heavy rail extension of the Metro Red Line.

In June 1991, the California Legislature adopted Public Utilities Code section 130265, which limited any rail transit project within the MTA ROW to a below ground subway system. Planning continued, and a Ventura Boulevard alignment was also studied in an EIR; however, in 1991, the Ventura Boulevard alternative was deleted due to the expense of constructing an all subway alignment.

In December 1992, the Ventura Freeway aerial alignment was adopted as the preferred route; but, following the Northridge earthquake in January 1994, MTA considered the revised construction standards for the support of an aerial freeway alignment. As those costs were prohibitive, MTA returned to the MTA ROW as the preferred alternative.

² A former railroad right-of-way, also referred to by other names, including the SP Burbank Branch and SP ROW, was purchased by MTA's predecessor in 1990.

In 1996, MTA completed a major investment study (“MIS”) alternatives screening report, which considered the cost effectiveness of heavy rail, light rail, and an enhanced bus alternative. In 1998, MTA entered into a contract with a bus riders advocacy group, which legally obligated MTA to focus on bus transit enhancements. Also in 1998, the electorate of Los Angeles County passed Proposition A which prohibited the expenditure of local funds on subway construction.

In June 1999, MTA initiated a full scale MIS for the Valley east-west transit corridor. In that MIS, MTA evaluated bus rapid transit (“BRT”), enhanced bus or transportation system management (“TSM”), light rail, heavy rail, dual mode rail, diesel multiple unit technology, aerial guideway, at-grade guideway, and below ground tunnel. The BRT alternative was determined to have the lowest capital and operating costs of all the build alternatives. While slightly slower than the rail alternative, the BRT would provide cross-Valley travel timesavings over both local and Rapid Bus³ service. The MIS recommended that MTA proceed with environmental documentation for BRT.

The alternatives carried forward for detailed evaluation in the draft EIR were:

1. No Build.
2. TSM. This alternative entails a significant improvement in bus service along all arterial roadways in the Valley. This alternative would make significant improvements in bus service to Sherman Way, Vanowen Street, Van Nuys Boulevard, Sepulveda Boulevard and Reseda Boulevard. TSM was designed to increase and improve bus operations to the point of maximum efficiency and was defined as the

³ Rapid Bus features buses combining limited stops with new technology such as centralized control and green light signal priority sensors to reduce travel time. The buses have low floors to allow faster boarding; headway rather than time-table based schedules to maximize bus frequency; and active management by supervisors in the MTA control center. At the time of the subject EIRs, there were two Rapid Bus lines in Los Angeles City.

optimal level of bus service that could be provided on the existing highway and roadway network.

3. Bus Rapid Transit (“BRT”)

a. Along the MTA ROW. This alternative includes the enhancements to bus service included in the TSM alternative.

b. Lankershim/Oxnard on-street alignment. BRT buses would travel on Lankershim Boulevard and Oxnard Street, a distance of approximately 3.6 miles. Project buses would also operate on-street from Owensmouth Avenue to Warner Center, a distance of .96 miles. While in those streets, Project buses would operate in the same fashion as Rapid Bus.

c. Minimum Operable Segment (“MOS”). BRT buses would operate in the middle segment of the MTA ROW for a distance of about 4.7 miles. In the western segment, the BRT buses would operate on Victory Boulevard in the same fashion as Rapid Bus. In the eastern segment, the BRT buses would operate on Oxnard Street and Lankershim Boulevard in the same fashion as Rapid Bus.

II. The Project

As approved, the Project consists of BRT within the MTA ROW. BRT is similar to Rapid Bus in that both utilize buses and receive priority at intersections. Rapid Bus operates within city streets together with cars and trucks and is subject to delays caused by traffic congestion. The BRT runs almost entirely within the MTA ROW and is not subject to the delays caused by traffic. The exclusive busway portion of the Project is 13 miles long, and the on-street portion near Warner Center is nine-tenths of a mile long.

Similar to light rail and Rapid Bus, BRT will have low floors for level boarding so that no step up will be necessary to enter the buses and loading and unloading times will be minimized. Because most of the BRT will operate in an exclusive right-of-way like light rail, cross-Valley travel times are estimated to approach those of light rail.

The Project will connect major centers of activity in the Valley across the heavily congested east-west corridor. The eastern terminus links with the northern terminus of the Metro Red Line at the North Hollywood station.

The BRT portion of the Project includes 13 stations, with Park-and-Ride facilities at 6 stations, providing commuters with approximately 3,000 new parking spaces. The Project also includes all of the enhancements to bus operations that were included in the TSM alternative, including improved bus service on all of the major arterials in the Valley.

III. The EIR

In May 2001, MTA released the draft EIR for the Valley east-west transit corridor (“DEIR”) for public comment. The DEIR contained no discussion of expanding Rapid Bus as an alternative to the busway project. From May 18, 2001, through July 26, 2001, MTA provided a 69-day public comment period. MTA’s governing board (the “Board”) received public testimony at a workshop on July 19 and at its regular meeting on July 26. The Board selected the BRT alternative as the locally preferred alternative and directed staff to evaluate a sub-alternative of operating the Lankershim/Oxnard alignment on weekends only.

After receiving and responding to over 700 comment transmittals containing over 1,200 individual comments, on February 12, 2002, MTA issued the final EIR for the Valley east-west transit corridor (“FEIR”).

On February 28, the Board of MTA certified the FEIR and approved the full BRT option.

IV. COST’s Concerns

As demonstrated by the DEIR, bringing high-speed transit to street level raised a host of environmental issues. The right-of-way, which was a median down the middle of residential streets in some areas, would be paved with asphalt and concrete and be hemmed in by fences and walls. Once operational, up to 42 buses per hour would travel along the busway.

The DEIR conceded that without mitigation, the project would result in significant traffic, noise, aesthetic and other impacts under CEQA. Even with the extensive mitigation proposed in the DEIR, noise from both construction and operation remained a “potentially significant” impact because of the proximity of residences and other noise sensitive receptors.

Pedestrian and traffic safety was a concern as the high-speed buses would cross 40 streets and intersections, stopping only 11 or 12 times. Several of the busway intersections would be at crooked angles that are difficult to control and signalize. At those intersections, there is a heightened risk that confused, inattentive or impatient drivers will enter the busway into oncoming bus traffic.

Rapid Bus, which began in 2000, presently includes only one line in the San Fernando Valley, along Ventura Boulevard at its southernmost edge. An alternative to the busway would be to expand the Rapid Bus network by initiating multiple east-west lines on major arterials north of Ventura Boulevard spreading across the Valley.

V. Court Proceedings

On April 2, COST filed an action in superior court seeking a writ of mandate against MTA on the grounds its certification of the FEIR violated CEQA.

Both parties filed a motion to supplement the record of proceedings, or in the alternative, admit extra-record evidence. The court granted MTA’s motion and admitted the COST documents that MTA did not oppose.

On December 20, the court heard oral argument and denied the writ.

COST filed a timely notice of appeal from the subsequent judgment.

On January 27, 2003, in this court, COST filed a petition for writ of supersedeas or other appropriate stay order seeking to have this court enjoin MTA, pending resolution of the appeal, from construction, contracting and other activities on the busway. This court denied the petition.

On January 30, MTA filed a memorandum of costs, claiming \$38,264.21 for costs incurred in connection with preparing the administrative record. COST filed a motion to strike, asserting no award was proper because it had elected to prepare, and had prepared, the record itself. The court heard oral argument, found the parties had agreed to share costs of preparing the record, denied the motion to strike and awarded costs of \$37,415.81 to MTA as the prevailing party.

The court amended the judgment to reflect the award of costs. COST filed an appeal from the order and amended judgment. The two appeals were consolidated.

DISCUSSION

I. CEQA Review

This case involves several complaints about the DEIR and the FEIR prepared for the Project. In general, COST complains that the DEIR was inadequate and that the FEIR contained significant new information and should have been recirculated.

“Under CEQA, an EIR is presumed adequate, and the plaintiff in a CEQA action has the burden of proving otherwise.” (Citation omitted.) (*Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 740.)

“The EIR has been aptly described as the ‘heart of CEQA.’ Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR ‘protects not only the environment but also informed self- government.’” (Citations omitted; original emphasis.) (*Citizens of Goleta Valley v. Board of Supervisors* (“*Goleta II*”) (1990) 52 Cal.3d 553, 564.)

“‘[T]he ultimate decision of whether to approve a project, be that decision right or wrong, is a nullity if based upon an EIR that does not provide the decision-makers, and the public, with the information about the project that is required by CEQA.’ The error is prejudicial ‘if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process.’” (Citation omitted.) (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (“*San Joaquin Raptor I*”) (1994) 27 Cal.App.4th 713, 721-722.).

“In reviewing agency actions under CEQA, [] section 21168.5 provides that a court’s inquiry ‘shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence.’ Thus, the reviewing court “‘does not pass upon the correctness of the EIR’s environmental conclusions, but only upon its sufficiency as an informative document.’” We may not set aside an agency’s approval of an EIR on the ground that an opposite conclusion would have been equally or more reasonable. ‘Our limited function is consistent with the principle that “The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind. CEQA does not, indeed cannot, guarantee that these decisions will always be those which favor environmental considerations.’” We may not, in sum, substitute our judgment for that of the people and their local representatives. We can and must, however, scrupulously enforce all legislatively mandated CEQA requirements.” (Citations omitted.) (*Goleta II, supra*, 52 Cal.3d at p. 564.)

“‘[T]he substantial evidence test applies to the court’s review of the agency’s factual determinations.’ Substantial evidence means ‘enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.’ ‘In applying the substantial evidence standard, “the reviewing court must resolve reasonable doubts in favor of the administrative finding and decision.’” The appellate court’s role ‘is precisely

the same as the trial court's,' and lower court's findings are not 'conclusive on appeal.'" (Citations omitted.) (*San Joaquin Raptor I, supra*, 27 Cal.App.4th at p. 722.)

COST raises the claim the EIR should have been recirculated in the context of several of its issues. MTA determined that the FEIR "presents no significant new information that would require the recirculation of the [DEIR]." (Emphasis deleted.) *Laurel Heights Improvement Assn. v. Regents of University of California* ("Laurel Heights II") (1993) 6 Cal.4th 1112, 1129-1130 sets out basic principles of when an EIR must be recirculated:

"[W]e conclude that the addition of new information to an EIR after the close of the public comment period is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a *substantial* adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. As recognized by the [*Sutter Sensible Planning, Inc. v. Board of Supervisors* (1981) 122 Cal.App.3d 813] court, recirculation is not required where the new information added to the EIR 'merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.' On the other hand, recirculation is required, for example, when the new information added to an EIR discloses: (1) a new substantial environmental impact resulting from the project or from a new mitigation measure proposed to be implemented (cf. Guidelines,⁴ § 15162, subd. (a)(1), (3)(B)(1)); (2) a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance (cf. Guidelines, § 15162, subd. (a)(3)(B)(2)); (3) a feasible project alternative or mitigation measure that clearly would lessen the environmental impacts of the project, but which the project's proponents decline to adopt (cf. Guidelines, § 15162, subd. (a)(3)(B)(3), (4)); or (4) that

⁴ All references to Guidelines are to the state CEQA Guidelines which implement the provisions of CEQA. (Cal. Code Regs., tit. 14, § 15000 et seq.)

the draft EIR was so fundamentally and basically inadequate and conclusory in nature that public comment on the draft was in effect meaningless.” (Citations omitted.) However, “the Legislature did not intend to promote endless rounds of revision and recirculation of EIR’s. Recirculation was intended to be an exception, rather than the general rule.” (*Laurel Heights II.*, *supra*, 6 Cal.4th at p. 1132.)

II. Pedestrian and Traffic Safety

COST contends that the Project’s impacts on pedestrian safety were ignored and that MTA failed to properly analyze traffic safety in both the DEIR and the FEIR.

Section 21100, subdivision (c) provides: “The report shall also contain a statement briefly indicating the reasons for determining that various effects on the environment of a project are not significant and consequently have not been discussed in detail in the environmental impact report.” A “significant effect on the environment” is defined as “a substantial, or potentially substantial, adverse change in the environment.” (§ 21068.) One criteria for determining whether a project might have “a significant effect on the environment” is if “[t]he environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.” (Former § 21083, subd. (c).)

Appendix G of the Guidelines lists “Transportation/Traffic” as one of the “environmental factors potentially affected” by a project. Under transportation/traffic, a change in traffic patterns resulting in “substantial safety risks” or “[s]ubstantially increased hazards due to a design feature” are suggested items to be considered in an EIR. (Guidelines, appen. G, at p. 714.24.)

A. Pedestrian Safety

1. Adequacy of the DEIR

Safety and security was one of sixteen areas discussed in the chapter of the DEIR on the consequences of the Project. COST posits the analysis of pedestrian safety was inadequate as it did not reflect the unique nature of the busway or contain a quantification of the actual risks to pedestrians or explain how the design features might mitigate the impact of the Project on pedestrian safety. However, it does not offer any authority that such a discussion was required. (See *Magan v. County of Kings* (2002) 105 Cal.App.4th 468, 477, fn. 4; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (“*San Joaquin Raptor II*”) (1996) 42 Cal.App.4th 608, 626 [“We discuss only those arguments that are sufficiently developed to be cognizable.’ [A]n appellant has the burden of showing reversible error.”] (Citation omitted).])

The DEIR did not ignore pedestrian safety; in it, MTA found as a result of the dedicated corridor and integrated safety features, the Project would not have a significant impact on safety. Prior to that conclusion, MTA noted, “Pedestrian/bus conflicts are another potential concern” and discussed various safety features relating to accident prevention. Those features included an MTA safety awareness program; pedestrian warning signs; three signalized, mid-block pedestrian crossings; fences, earth berms and vegetations to prevent pedestrians and bicycles from crossing the busway as well as a commitment to adopt City of Los Angeles safety standards for pedestrians and bicycles in addition to MTA’s own safety standards. Also, traffic control signals provide safe crossing times for pedestrians, and Project intersections are signalized.

That discussion satisfied CEQA. (See § 21002.1, subd. (e) [“To provide more meaningful public disclosure, reduce the time and cost required to prepare an environmental impact report, and focus on potentially significant effects on the environment of a proposed project, lead agencies shall, in accordance with Section 21100, focus the discussion in the environmental impact report on those potential effects on the environment of a proposed project which the lead agency has determined are or may be significant. Lead agencies may limit discussion on other effects to a brief explanation as to why those effects are not potentially significant.”].)

2. Recirculation

COST asserts the FEIR should have been recirculated as it incorporated important changes in the Project. COST notes the Z gates (metal barriers pedestrians have to weave through before walking onto the busway), as well as the grade separation at the Burbank/Fulton intersection, both of which were contained in the DEIR, had been eliminated in the FEIR. COST also complains that although the DEIR stated LADOT standards would be followed in devising traffic signals for pedestrians, the FEIR provided substantial new details about the design of those signals.

The Z gates were eliminated in response to a comment about other problems presented by the gates. The FEIR explained even without the Z gates, pedestrian platforms, signal timing and LADOT safety standards would adequately protect pedestrians. MTA determined the busway could be implemented without the grade separation at the Burbank/Fulton intersection after discussions with LADOT, the agency which commented on the grade separation initially. MTA also indicated the need for a grade separation was “rejected due to its impacts on adjacent land uses, development patterns, access to properties, and costs. Moreover, it was shown through the traffic analysis that this intersection can operate acceptably in an at grade configuration.” The amplification of the details of the design of the traffic signals did not constitute substantial new information about which the public was entitled to comment.

As noted by COST, “MTA received a raft of comments on this shortcoming [pedestrian safety].” Thus, the draft permitted “meaningful public review and comment.” (See Guideline § 15088.5(a)(4).) To insist on recirculation every time “new information” or details are included in a final EIR in response to comments, would lead to endless rounds of EIRs clearly against the Legislature’s intent recirculation be the exception, not the rule.

B. Traffic Safety

Similar to its position on pedestrian safety, COST contends that the EIRs failed to properly analyze traffic safety as they did not consider the potential safety hazard of the busway's 40 intersections or take into account its capacity to generate accidents at a higher rate than buses on the streets and that the FEIR added significant new information. As with pedestrian safety, the EIRs provided a brief explanation as to why the impact of the Project on traffic safety was not significant.

In the FEIR, MTA found the effects related to bus accidents and crime were not significant, noting, "The project would have the potential to result in a marginal increase in bus accidents; however, net benefits are likely due to improved signalization and use of the exclusive busway."

As noted in a comment, using MTA's figures, the Project's impact on safety would result in 60 new accidents per year. COST's suggestion that impact is presumptively significant is not supported by any evidence, and the impact appears to be de minimis given the anticipated increase in traffic. Moreover, the EIRs noted the accident rate was based on operation in mixed flow streets. In response to a comment, MTA stated: "Bus operation in an exclusive busway (as stipulated by the BRT Alternative) is inherently safer than buses operating in mixed flow traffic. The BRT exclusive busway will employ 'pre-signals' and appropriate stopping distances as safety measures at intersections, which are the only locations at which buses come into contact with automobiles in the street system. These provisions will be sufficient to assure the public of adequate protection." The Project also incorporates substantial improvements to intersections along the busway.

The FEIR noted the total number of accidents in the Valley should actually decrease as a result of the Project because BRT ridership would be drawn primarily from commuters who would otherwise be traveling in cars on mixed flow streets. The Project was expected to result in a reduction in automobile traffic of 34 million miles per year.

In the safety impact section, the EIRs referred to other design elements that will create a safer transit system, e.g., enhanced signal controls, operator communication equipment, LADOT safety standards, warning signs, three mid-block crossings, pre-signals, traffic lighting, and painting to visually designate the busway. A more detailed discussion of those design features was contained in specific portions of the FEIR.

Expert agency personnel may be entitled to conclude that a project will not have a particular environmental impact. (See *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1380.) MTA's conclusion that the Project would not have significant impact on safety was reasonable. (*Ibid.*)

Citing *Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1030, COST suggests deferring the discussion of signal operation until the development phase violated MTA's obligation to present a comprehensive description of the Project. The project at issue in *Los Angeles Unified* (a development plan for an urban area) had a significant environmental impact (increased air pollution), and this court determined the EIR was inadequate as it failed to discuss air conditioning and filtering as a means to mitigate the effects of increased air pollution on the schools. (*Id.*, at pp. 1028-1031.) COST does not discuss what significant environmental impact was implicated by putting off a detailed discussion of signal operation. (See *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 36 ["In addition, appellants do not explain how more detailed engineered drawings would allow the public and decisionmakers to 'fully understand the environmental consequences of the entire project.'"]). As conceded by appellants, MTA received "voluminous comments" on traffic safety. Thus, appellants have not demonstrated the traffic signals were inadequately described in the EIR. (*Ibid.*)

Again, the responses cited by COST in the FEIR to comments provided more details, but did not constitute significant new information requiring recirculation.

Accordingly, the DEIR's discussion of pedestrian and traffic safety was adequate, and the FEIR did not generate significant new information about pedestrian or traffic safety requiring recirculation.

III. Responses to Comments

"The written response shall describe the disposition of any significant environmental issue that is raised by commenters." (Former § 21091, subd. (d)(2)(B).) "Thus, a lead agency need not respond to each comment made during the review process, however, it must specifically respond to the most significant questions presented. Further, the determination of the sufficiency of the agency's responses to comments on the draft EIR turns upon the detail required in the responses. Where a general comment is made, a general response is sufficient." (Citations omitted.) (*Browning-Ferris Industries v. City Council* (1986) 181 Cal.App.3d 852, 862.) The responses need not be exhaustive, but must evince good faith and reasoned analysis. (*San Francisco Ecology Center v. City and County of San Francisco* (1975) 48 Cal.App.3d 584, 596.)

A. Miami Study

In response to a comment the high rate of accidents on the Blue Line demonstrated the busway would have a significant impact on safety, the FEIR referred to a dedicated busway project in Miami, Florida that purportedly had a low accident rate at some of its intersections.

COST contends MTA had no support for its selective comparison with the Miami facility because MTA's analysis was inaccurate and misleading as demonstrated by a study performed for the Miami/Dade Transit Authority, which MTA admitted was the

source for its analysis and should have been referred to and cited in the FEIR.⁵ COST notes the study showed Miami had a bad safety record, with more than 67 cross-traffic collisions, most involving injuries.⁶

COST complains the response did not cite to supporting information or documentation in the administrative record or elsewhere and argues the lack of supporting evidence was a violation of CEQA's requirement for a good faith and reasoned response to comments. (Guidelines § 15088.) That requirement applies "to comments relating to significant environmental issues." (*Laurel Heights II, supra*, 6 Cal.4th at p. 1124.) Traffic safety was not a significant environmental issue.

In part, the response to Comment C9-66 about accident prevention stated:

"The Miami Project has intersections with coordinated signal control (such as would be the case with the BRT) and intersections without coordinated signal control. The accident rate at the intersections with coordinated signal control was approximately 1 accident per every 20 million entering vehicles. [¶] The proposed BRT is designed to operate at-grade with all intersections signaled in a manner similar to the coordinated signal control intersections in the Miami Project. The BRT busway and parallel street traffic will have the same signal phasing at intersections. Cross traffic will be phased to pass through both intersections as if they were one. [¶] Additional safety measure have been incorporated into the BRT project design that are not present in the Miami project. Although the busway and parallel traffic will have the same signal phasing, they will each have their own signage, active signs, street painting, and signals to warn cross traffic and right-turn lanes that they are not to enter either intersection. Pre-signals will be installed to keep all cross traffic

⁵ COST states the study was not part of the documents supplied by MTA when COST was preparing the administrative record, but it obtained a copy of the study from the Miami/Dade Transit Authority and successfully moved the court to include the study in the record.

⁶ COST's claim that Miami had instructed its bus drivers to stop at all intersections whether or not there was a green signal is not supported by the record page cited by COST. Both parties miscite to the record.

from entering the busway/parallel traffic intersection. Should a motorist enter into the intersection on a yellow signal, the vehicle will be able to pass through the full intersection before the busway/parallel traffic is phased to green. Right turn lanes will have active 'No Right Turn' signs and should motorists ignore that warning they will be stopped by a signal situation on the opposite side of the busway."

A further debate on the details of the comparison, such as which type of intersections were the most comparable and whether Miami had the additional safety measures referred to in the response, would have been of no further assistance. The Board was alerted to potential problems with the comparison and had MTA's commitment to seeing that problems with cross-traffic would be addressed.

B. Comparison with The Blue Line

COST contends MTA refused to consider the safety impacts in light of its own experience with the Blue Line, the most dangerous light rail in the nation. Specifically, COST asserts the FEIR ignored the comments of Thomas Rubin, a former chief financial officer with MTA's predecessor agency.

Rubin opined that the busway had the potential to be far more dangerous than the Blue Line because of various design elements: (1) the frequency of buses on the busway would be as much as twice that of the trains on the Blue Line, doubling potential accidents; (2) the busway would not have the physical protections of the Blue Line, such as crossing gates with arms lowering across the roadway, crossing signals with flashing lights and bells, and a loud, long horn on each train; (3) trains, being far heavier than buses and operating on tracks, are generally far safer than buses for transit passengers in a collision so that although no Blue Line passenger or employee had ever suffered a serious injury, it was unlikely BRT passengers would be that fortunate.

MTA posits it may disregard Rubin's testimony as it related to a subject outside his field as nothing qualified him as an expert in safety or traffic engineering. Although Rubin's duties included supervising risk management, his expertise was in the financial and auditing side of transit not safety or traffic engineering. (See *San Joaquin Raptor II*, *supra*, 42 Cal.App.4th at p. 621; *Lucas Valley Homeowners Assn. v. County of Marin* (1991) 233 Cal.App.3d 130, 157.) Rubin's statement shows that even with extensive protections, all accidents cannot be prevented. Rubin's opinion BRT passengers might suffer serious injury was speculation and not substantial evidence. (See *Citizens' Com. to Save Our Village v. City of Claremont* (1995) 37 Cal.App.4th 1157, 1170-1171.)

Besides the response to Comment C9-66, the EIRs stated: "The intersections will operate as an at-grade street crossing, and will not require the installation of gates, bells or whistles associated with rail crossings. Busway drivers will have direct control over their vehicles and will be able to brake quickly or move out of the way to avoid accidents."

The Board was alerted to safety concerns and had MTA's commitment to address those concerns. MTA was entitled to determine buses were a different kettle of fish from trains.

C. Running Times

The DEIR estimated travel time of the length of the 14 mile busway at 28.8 minutes. However, the DEIR acknowledged the runtime was an estimate; it stated the runtime was limited by the amount of signal priority allocated by LADOT and priority treatment for buses in both directions during peak flow might not be possible. Runtime was based on bus speed, dwelling time at stops, and expected average delay at intersections. The DEIR also stated a refinement of the bus operating speeds and signal priority would be made during preliminary engineering.

During the comment period, Rubin pointed out that the primary assumptions underlying the runtime, i.e., that every BRT bus would have close to 100 percent green lights at all of the intersections and no delay at stations, were unfounded, and that the buses would operate more slowly than predicted.

In response, the FEIR explained “a more detailed analysis of operating assumptions along the busway was conducted in consultation with [LADOT].” Recognizing “[s]ignal delay for the BRT will likely vary over time as traffic conditions and signal technology evolve,” the FEIR “addresses a range of signal delay assumptions.” The FEIR concluded the runtime would “likely be somewhere between 28.8 and 40 minutes.”

COST contends that because runtime calculations were critical to a fair comparison with alternatives like Rapid Bus, the dramatic increase in runtime was significant new information warranting recirculation of the FEIR as it would affect the cost effectiveness of the busway over the other alternatives.

Although COST questions the lower time estimate, the FEIR considered whether any new significant environmental impacts would be caused by the upper-bound runtime. The FEIR found the upper estimate would slightly increase background traffic by at most 0.1 percent resulting in fewer riders and less traffic traveling to and from BRT’s parking lots such that the longer runtime would cause less traffic impacts at intersections. The overall traffic impacts to intersections were therefore projected to remain the same so that changes were not required with regard to impacts and mitigation of the intersections in the FEIR. Air quality impacts were reanalyzed, and the FEIR concluded there were only negligible changes and no significant impacts. COST does not challenge those findings.

COST suggests Rapid Bus was within reach of the new 40-minute estimate for BRT. As noted by MTA, it considered comments concerning the 50 minute runtime for Rapid Bus and found that estimate was still appropriate. A disagreement among experts does not render an EIR inadequate. (Guidelines § 15151.)

Moreover, the runtime for Rapid Bus is based on 2001 traffic conditions whereas the BRT estimate is based on 2020 traffic conditions, which are projected to be much more congested in the Valley. Also, BRT will operate within an exclusive busway resulting in reliable travel times compared to on-street bus operation in congested traffic. The travel time of Rapid Bus will degrade as traffic congestion increases, while the travel time of BRT is not subject to degradation.

Recirculation is not required if a new study supporting conclusions in a draft EIR does not reveal a significant environmental impact. (*Laurel Heights II, supra*, 6 Cal.4th at pp. 1136-1137.) Hence, recirculation was not necessary due to the change in the estimate of runtime.

D. Ridership

COST contends the alternative analysis in the FEIR was skewed by mistaken ridership data and the EIR should be recirculated.⁷ Without any supporting argument or authority, COST asserts MTA was obligated to confirm the predictive ability of its ridership model by testing its projections for a past year against the actual data it had gathered for that past year, and MTA had not done so. In a comment, Rubin stated he had tested the model himself. Rubin chose 1998 as the year for his comparison and obtained actual data for MTA's bus boardings filed with the Federal Transit Administration's National Transit Database ("NTD"), which were available in MTA's public files.

⁷ MTA's argument that COST waived any questions concerning the ridership model because they were not preserved in the pleadings and statement of issues is without merit as it is not supported by any legal authority requiring such specificity in the petition or the statement of issues. (See *MST Farms v. C. G. 1464* (1988) 204 Cal.App.3d 304, 306.) However, those questions explain why the record had to be supplemented.

Rubin first ran the MTA model and predicted the ridership for the 1998 base year and then compared those figures with the actual MTA data for that year. Rubin concluded the numbers showed a 22 percent error rate, which he claimed overstated ridership.

Thus, COST argues the MTA Board did not have an accurate comparison of the busway versus other alternatives when it certified the FEIR and adopted the Project, which was an abuse of discretion because of the failure to comply with the information disclosure provisions of CEQA. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 734.) COST also notes MTA moved the court to add 101 pages of new documents (i.e., MTA's 1999 NTD submittal) to explain how the error was made. COST urges that information should have been presented to the public. (See *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)

MTA responded that as the technology in the DEIR was part of bus service, not rail service, the estimate of BRT ridership was more likely on the conservative side. The response included a chart comparing several data items from the MTA's 1998 model run with corresponding actual data from the 1998 NTD data and showed the error rate was at most nine percent. The response noted the model validation (i.e., the chart) had been presented to modeling professionals, who said its predictive accuracy was acceptable.

MTA states that COST's argument is based on the wrong NTD submittal because the model attempted to simulate conditions for October 1998, which fell within its fiscal year ending June 30, 1999, and the corresponding NTD report for that year, and the data on the chart matched the 1999 NTD submittal. MTA states the chart simply mislabeled the data sources by referring to "1998" at the top rather than "FYE 6/30/1999."

COST notes several of the items in that chart had not come from MTA's 1999 NTD submittal, but from its own internal spreadsheets. COST cites the declaration of MTA staffer Chaushie Chu as support for that position. COST then notes that declaration was admitted only to support MTA's motion to include certain documents in the record and was not itself admitted into the administrative record by the court. Accordingly,

COST urges this court to refuse MTA's effort to supplement the record with Chu's declaration to explain MTA's decision. We decline COST's invitation as part of its argument is based on that same declaration.

These explanations of the differences from the application of the ridership model constituted a conflict among experts, and MTA was entitled to rely on its staff explanation. (See *Greenebaum v. City of Los Angeles* (1984) 153 Cal.App.3d 391, 413.) The additional document supported MTA's explanation and did not need to be part of the EIR nor was there any need to recirculate the EIR.

Moreover, to predict ridership, MTA's model included input data on pedestrians walking to the stations within a half-mile radius, demographic data within a half-mile of the stations, forecasted population increases in the Valley, countywide vehicles trips, traffic speed, and BRT runtimes. A court should not scrutinize the scientific value of a model. (See *Friends of Boundary Waters Wilderness v. Dombeck* (8th Cir. 1999) 164 F. 3d 1115, 1130.)

IV. Alternatives

COST contends the DEIR failed to consider other alternatives that could feasibly meet MTA's objective to improve mobility at low cost and with minimal community impacts, while sparing much of the Valley from the safety, noise, aesthetics, air quality and other impacts associated with the busway.

In *Kings County Farm Bureau v. City of Hanford, supra*, 221 Cal.App.3d at p. 733, the court discussed the concept of reasonable alternatives:

"An EIR must '[d]escribe a range of reasonable alternatives to the project or to the location of the project, which could feasibly attain the basic objectives of the project and evaluate the comparative merits of the alternatives.' (Guidelines, § 15126, subd. (d).) The discussion must 'focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these

alternatives would impede to some degree the attainment of the project objectives, or would be more costly.’ (Guidelines, § 15126, subd. (d)(3).) A major function of the EIR is to ensure thorough assessment of all reasonable alternatives to proposed projects by those responsible for the decision.

“A legally adequate EIR ‘must produce information sufficient to permit a reasonable choice of alternatives so far as environmental aspects are concerned.’ It must contain sufficient detail to help ensure the integrity of the process of decisionmaking by precluding stubborn problems or serious criticism from being swept under the rug. It must reflect the analytic route the agency traveled from evidence to action. An EIR which does not produce adequate information regarding alternatives cannot achieve the dual purpose served by the EIR, which is to enable the reviewing agency to make an informed decision and to make the decisionmaker’s reasoning accessible to the public, thereby protecting informed self-government.

“The degree of specificity required in an EIR depends upon the degree of specificity involved in the underlying activity described in the EIR. (Guidelines, § 15146.) The sufficiency of the information contained in an EIR is reviewed in the light of what is reasonably feasible. (Guidelines, § 15151.)” (Citations omitted.)

An EIR must consider a reasonable range of alternatives to the project which: (1) offer substantial *environmental* advantages over the project proposal, and (2) may be feasibly accomplished in a successful manner considering the economic, environmental, social and technological factors involved. (*Marin Mun. Water Dist. v. KG Land California Corp.* (1991) 235 Cal.App.3d 1652, 1664.) “Those alternatives and the reasons they were rejected . . . must be discussed in the EIR in sufficient detail to enable meaningful participation and criticism by the public.” (*Laurel Heights Improvement Assn. v. Regents of University of California* (“*Laurel Heights I*”) (1988) 47 Cal.3d 376, 405.)

Moreover, “If the agency finds certain alternatives to be infeasible, its analysis must explain in meaningful detail the reasons and facts supporting that conclusion. The

analysis must be sufficiently specific to permit informed decision-making and public participation, but the requirement should not be construed unreasonably to defeat projects easily. An EIR need not consider in detail every conceivable variation of the alternatives stated; instead, as with the range of alternatives which need discussion, the level of analysis is subject to a rule of reason.” (*Marin Mun. Water Dist. v. KG Land California Corp.*, *supra*, 235 Cal.App.3d at pp. 1664-1665.)

A. Rapid Bus

COST contends MTA refused to consider the most promising alternative -- an expansion of Rapid Bus⁸ and instead set its sights on a particular project. (*Laurel Heights I*, *supra*, 47 Cal.3d at p. 394 [The court criticized using EIRs as a post hoc rationalization for projects to which an agency had committed.]) However, “If having high esteem for a project before preparing an [EIR] nullifies the process, few public projects would withstand judicial scrutiny, since it is inevitable that the agency proposing a project will be favorably disposed toward it.” (*City of Vernon v. Board of Harbor Comrs.* (1998) 63 Cal.App.4th 677, 688.) The instant FEIR was not a post hoc rationalization; COST does not point to any evidence of a legally binding precommitment such as an official act granting a permit or recognizing a right. (*Ibid.*)

Moreover, as Rapid Bus was not discussed until the FEIR, COST contends recirculation was triggered because Rapid Bus was significant new information as it was substantially different from the other proposed alternatives because it lessened environmental impacts and had substantial travel time advantages over existing bus

⁸ Various comments proposed a series of three or five east-west routes north of Ventura Boulevard, which would complement a series of north-south routes MTA was proposing in the Valley.

service and hence over the no build and TSM alternatives. (*Laurel Heights I, supra*, 47 Cal.3d at pp. 403-404; Guidelines § 15088.5(a)(3).)

Based on the projected runtimes (between 28.8 and 40 minutes for BRT versus 50 minutes for Rapid Bus), one response concluded Rapid Bus would not achieve a decrease in travel time comparable to BRT. The response to a comment characterizing Rapid Bus as the most viable option noted Rapid Bus operated in mixed flow streets and would be subject to the risk of substantial deterioration in travel time as projected congestion increased in the east-west transit corridor of the Valley while full BRT will continue to provide long-term transit benefits, meaning Rapid Bus would not serve to minimize total travel times, one of the objectives of the Project.

However, to comments supporting the TSM alternative and suggesting adding Rapid Buses and mentioning three or five possible routes, the response was to note the opposition. The response did not address the suggestion of multiple Rapid Bus routes.

COST asserts Rapid Bus would advance the primary objective of improving public transit in the Valley because it has the advantage of operating on existing streets, which would avoid environmental impacts associated with the busway, would serve a more diverse population than BRT, which was a single line many miles distant from many Valley residents, and would cost \$195,000 per capital mile compared to the busway, which would cost \$16.8 million per mile.⁹

MTA counters that Rapid Bus was similar to the alternatives it discussed and that alternatives with similar advantages and disadvantages to those considered need not be discussed. (See e.g. *Carmel-By-The-Sea v. U.S. Dept. of Transp.* (9th Cir. 1997) 123

⁹ COST impliedly raised a question regarding the comparative costs of the busway and Rapid Bus. MTA does not respond to this claim, and we are unable to evaluate the accuracy of those claimed costs, especially as Rapid Bus was not considered as an alternative and no statement of overriding considerations appears to have been adopted. (See §§ 21002, 21002.1, 21081; Guidelines, §§ 15064, 15093, 15121, 12124.)

F.3d 1142, 1159; *Save San Francisco Bay Assn. v. San Francisco Bay Conservation, etc. Com.* (1992) 10 Cal.App.4th 908, 922-923.)

MTA insists the three and five route proposals are very similar to the Project, which includes TSM (i.e., substantial improvements in bus service making for the best bus service possible using the existing network of roadways) for major arterial roadways in the Valley. Those roadways will receive more buses, which will substantially reduce the headways (or time between buses) during peak travel periods.

MTA also notes that the Lankershim/Oxnard alternative was one-third Rapid Bus and the MOS alternative was two-thirds Rapid Bus and that those alternatives have the other time-savings features of Rapid Bus, such as limited stops, low floor boardings and headway based schedules.

MTA states Rapid Bus would result in significant environmental impacts compared to full BRT because noise and vibration impacts are worse for the on-street alignment than for the BRT as the MTA ROW provides the opportunity to mitigate the sound impacts from buses with sound walls and because Rapid Bus was inconsistent with the general plan of the City of Los Angeles, which had an objective of a busway utilizing a publicly owned railway right-of-way. Thus, MTA urges there was no duty to discuss Rapid Bus as it is an environmentally inferior alternative. (*Goleta II, supra*, 52 Cal.3d at p. 566.)

Even though MTA claims Rapid Bus “would result in significant environmental impacts from operations that are more severe than the full BRT,” there was no such finding in the EIRs. COST notes the noise factor was based on one alignment (Lankershim/Oxnard) and there was no showing that Rapid Bus, which had not been proposed for those streets, would have a significant impact on noise. Although “the Guidelines require an EIR to discuss any inconsistencies between the proposed project and applicable general and regional plans” (*Marin Mun. Water Dist. v. KG Land California Corp., supra*, 235 Cal.App.3d at p. 1668), COST raises a valid point that the

fact another agency has acknowledged MTA's plan to build a busway in its general plan should not be used to reject an alternative as not meeting an objective of a project.

The other alternatives are not comparable to Rapid Bus. TSM was not designed to provide the fastest bus service possible whereas in its own report on Rapid Bus, MTA stated Rapid Bus had provided a substantial travel time advantage over traditional bus service, e. g., operating speeds on Ventura Boulevard had increased by 23 percent. The other alternatives (MOS and Lankershim/Oxnard) were each a single route not comparable to a network of routes. In addition, even though there had been prior efforts to address the Valley's mass transit needs, none of them had considered expansion of Rapid Bus. (See *Friends of the Old Trees v. Department of Forestry & Fire Protection* (1997) 52 Cal.App.4th 1383, 1404, fn. 11 [Public review of alternatives prior to a draft EIR cannot fulfill the requirement the document circulated for public review contain the necessary information regarding alternatives.])

COST urges the saving time explanation was insufficient to satisfy the CEQA requirement of considering all feasible alternatives. Moreover, there was no support for the inference the 50 minute runtime on Ventura Boulevard would be the same for other potential Rapid Bus routes, the cited runtime estimate for Rapid Bus was for a route one mile longer than the runtime estimate for the busway route, and the response failed to take into account the fact that with multiple east-west routes, the total origin-to-destination travel time would be reduced for a majority of riders as compared to the busway because most riders would be closer to a Rapid Bus route than to the busway.

MTA's arguments are insufficient justification for not considering Rapid Bus as they only tend to show Rapid Bus would be somewhat slower than BRT, they do not take into account the effect multiple east-west routes would have on total origin-to-destination time versus a single busway, and a longer travel time does not render Rapid Bus infeasible or otherwise justify its rejection. Accordingly, we conclude MTA erred in failing to consider multiple Rapid Bus routes as a feasible (see § 21061.1) alternative.

B. Fare Reduction

One comment proposed fare reduction as a “well proven way to significantly increase transit ridership at a very low cost per new rider.” The response to that comment stated the MTA considered “fare policy separately.”

COST contends that because MTA ignored that comment, recirculation was triggered as fare reduction was feasible and different from the proposed alternatives and would have a substantial environmental advantage over the busway by avoiding safety, noise and aesthetic impacts.

MTA cites to part of the response to comment F8-1D stating: “All existing transit services are substantially subsidized beyond what is collected at the fare box, which would be the case for any proposed new services whether TSM or the busway. . . . The state funding available for implementation of the BRT project is limited to being used for capital expenses, including vehicles, construction, real estate, design, and engineering, so these funds would not be available for fare reductions.”

Although that response was to a comment criticizing MTA for failing to address the costs of the TSM enhancements and how they would be subsidized rather than to a fare reduction proposal, procedural violations do not necessarily require vacating an EIR. (*Neighbors of Cavitt Ranch v. County of Placer* (2003) 106 Cal.App.4th 1092, 1100.)

COST also complains the response does not qualify as a comprehensive response to the comment proposing an across-the-board fare decrease and did not respond to any of the advantages of fare reduction cited by the commentator (i.e., a low per passenger subsidy and increased ridership). Neither does the response show fare reduction was infeasible as the funds referred to were not the only funding source and MTA had other funds which could be diverted to fare reduction, and even if no funds were available, additional subsidies might not be required as reduction could cause ridership to increase,

thereby increasing total revenues without a commensurate increase in operating costs. Such inferences are sheer speculation.

MTA notes fare reduction would not meet the objectives of improving mobility in the Valley, reducing congestion, minimizing travel times or achieving land use goals. MTA did not have to consider fare reduction as there was substantial evidence in the record, i.e., it had not raised rates since 1996, it needed an increase in fares, and costs were short of revenue, fare reduction was infeasible. (*Save San Francisco Bay Assn. v. San Francisco Bay Conservation etc. Com.*, *supra*, 10 Cal.App.4th at p. 922.) ““But where potential alternatives are not discussed in detail in the [EIR] because they are not feasible, the evidence of infeasibility need not be found within the [EIR] itself. Rather a court may look at the administrative record as a whole to see whether an alternative deserved greater attention in the [EIR].”” (*Goleta Valley II*, *supra*, 52 Cal.3d at p. 569.)

We conclude that although MTA could have responded to the suggestion of fare reduction more appropriately, it did not deserve greater attention as any potential environmental advantage was speculative.

V. Segmentation

COST contends the absence of any analysis of the safety or other environmental impacts of the bikeway in the DEIR violated CEQA’s requirement the project be described and analyzed in its entirety, meaning the agency did not proceed in the manner required by law. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192-193.)

COST argues that by improperly segmenting the Project, the cumulative impacts were not considered. (See *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 166; see also *San Joaquin Raptor I*, *supra*, 27 Cal.App.4th at p. 733 [setting aside an EIR for omitting a reference to a wastewater plant that was a necessary element of a project for residential development].) COST insists the

bikeway was an integral component of the busway project and MTA was obligated to take that facility into account when evaluating the impacts of the busway because of the potential for a significant impact. (*Santiago County Water Dist. v. County of Orange*, *supra*, 118 Cal.App.3d at p. 829.)

The DEIR noted the City of Los Angeles (“City”) was planning a bikeway as a separate project and planned to construct the bikeway within the MTA ROW adjacent to the busway. The DEIR discussed safety and other impacts of the bikeway; it discussed accident prevention as it related to the bikeway and the adjacent busway and noted that LADOT safety standards for bicycles would be implemented and that the bike path would be separated from the busway by fencing to discourage entry into the busway. Concept-level drawings for the Project set out the location of the bikeway and the proposed separation features from the adjoining busway. The DEIR concluded, “As a result of the dedicated corridor and integrated safety features (for drivers, bikes, and pedestrians), the project would have, at most, a minor adverse impact [on safety].”

The FEIR eliminated the language the bikeway was a separate project and noted it would be constructed concurrently with the busway. Although the FEIR referred to the bikeway as the City’s proposed bikeway, it acknowledged MTA had awarded funds for the bikeway and was the recognized lead for the bikeway. The FEIR also stated that separate environmental documentation would be prepared for the bikeway¹⁰ and that LADOT would maintain the bikeway. The FEIR confirmed that the bikeway would conform to LADOT bike lane standards and that bikeway crossings of intersections would be signalized.

Thus, the EIRs considered the impact of the bikeway on pedestrian and traffic safety in the design of signalized intersections and considered the bikeway location

¹⁰ The City completed its environmental clearance for the bikeway on January 14, 2002, through a notice of exemption. Any challenge to that clearance is now barred by the 35-day statute of limitations. (§ 21167, subd. (b).)

compared to the Project's facilities. Potential aesthetic impacts of the bikeway were evaluated, and the cumulative impacts of regional bikeway improvements were considered.

The DEIR did not improperly segment the Project as the bikeway was not an essential component because minimizing travel time and relieving congestion could be accomplished without the bikeway. (Compare *County of Inyo v. City of Los Angeles*, *supra*, 71 Cal.App.3d at pp. 197-198.) The revised description of the bikeway in the FEIR did not give rise to any new or more severe environmental impacts requiring recirculation. (See *Laurel Heights II*, *supra*, 6 Cal.4th at pp. 1139-1140.)

As we reverse for MTA to consider another alternative, we need not address COST's contention the award of costs was an abuse of discretion.

DISPOSITION

The judgment is reversed and the cause is remanded to the superior court which shall issue a peremptory writ of mandate directing MTA to vacate its certification of the FEIR and approval of the Project. The writ shall direct MTA, on any further proceedings on the EIR, to address the alternative of multiple Rapid Bus routes. Each side to bear its own costs on appeal.

WOODS, J.

We concur:

JOHNSON, Acting P.J.

ZELON, J.

**APPENDIX 8-B
RAPID BUS STOP ENGINEERING PLANS**



LOS ANGELES COUNTY
 METROPOLITAN TRANSPORTATION AUTHORITY
 FACILITIES ENGINEERING - OPERATIONS

METRO RAPID EXPANSION STATION STOPS

PRELIMINARY
 NOT FOR
 CONSTRUCTION

VICINITY MAP NOT TO SCALE

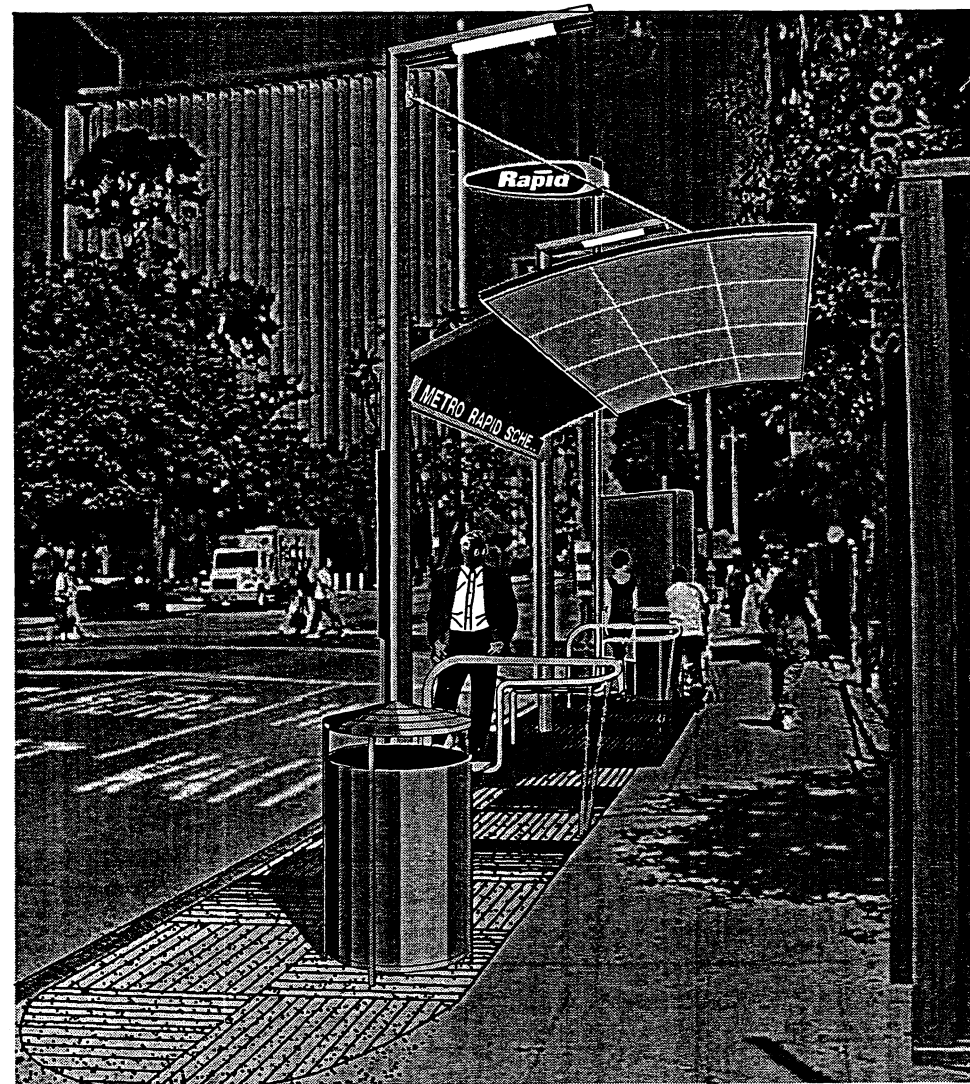


N/A

LOCATION PLAN NOT TO SCALE

N/A

PERSPECTIVE



DRAWING INDEX

- T-1 TITLE COVER, DRAWING INDEX AND PERSPECTIVES
- A-1 STATION TYPE VARIATIONS AND GENERAL NOTES
- A-2 PLAN - SINGLE CANOPY TYPE 6.1, 8.1 AND 10.1
- A-2A PLAN - SINGLE CANOPY TYPE 2.1
- A-3 PLAN - DOUBLE CANOPY TYPE 6.2, 8.2 AND 10.2
- A-3A PLAN - DOUBLE CANOPY TYPE 2.2
- A-4 ELEVATION - SINGLE/DOUBLE CANOPY - 6 FT., 8 FT., 10 FT. WIDE CANOPIES
- A-4A ELEVATION - SINGLE/DOUBLE CANOPY FOR 2 FOOT WIDE CANOPIES
- A-5A PLAN AND SECTION - 2 FOOT WIDE CANOPY
- A-5B PLAN AND SECTION - 6 FOOT WIDE CANOPY
- A-5C PLAN AND SECTION - 8 FOOT WIDE CANOPY
- A-5D PLAN AND SECTION - 10 FOOT WIDE CANOPY
- A-6 TYPICAL CANOPY FRAMING AND DETAILS - 6 FT., 8 FT., 10 FT. WIDE CANOPY
- A-6A CANOPY FRAMING AND DETAILS FOR 2 FOOT WIDE CANOPY
- A-7A FLAGPOLE ASSEMBLY AND AD KIOSK
- A-7B FLAGPOLE ASSEMBLY AND MAP CASE AND RECEPTACLE
- A-7C FLAGPOLE ASSEMBLY AND MAP CASE
- A-8 LEANBAR ASSEMBLY AND DETAILS
- S-1 CANOPY SUPPORT AND DETAILS - 6FT., 8 FT., 10 FT. WIDE CANOPIES
- S-1A TYPICAL CANOPY SUPPORT AND DETAILS - 2 FOOT WIDE CANOPY
- S-2 FOOTING DETAILS
- S-3 CANOPY POLE AND MISCELLANEOUS DETAILS

V.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03



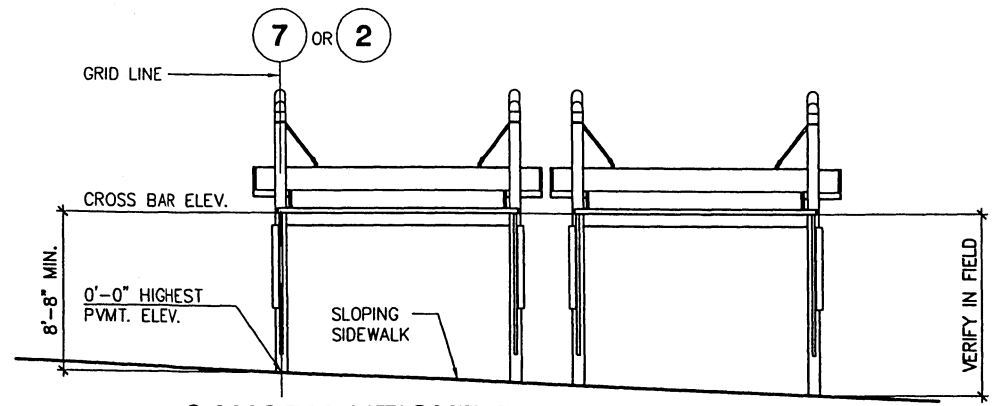
LOS ANGELES COUNTY
 METROPOLITAN TRANSPORTATION AUTHORITY
 FACILITIES - OPERATIONS, ENGINEERING DIVISION

RECOMMENDED _____ DATE _____ APPROVED _____ DATE _____

METRO RAPID EXPANSION
 STATION STOPS

TITLE COVER, DRAWING INDEX AND
 PERSPECTIVE

FILE/JOB NUMBER PLOT FILES/T-1	SCALE
DWG. NO.	T-1
SHEET	1 OF 22



CANOPY HEIGHT REFERENCE
NOT TO SCALE

MTA METRO RAPID EXPANSION - STATION ELECTRIC LOAD		
	WATTS	REMARKS
CANOPY LAMPS (NIGHT)	280	-
CHANGEABLE MESSAGE SIGN (24/7)	50	-
FLAGPOLE RAPID LOGO DISPLAY (NIGHT)	28	USING F28T5/841 PHILLIPS (28W) PROGRAMMED START
ADVERTISING KIOSK (24/7)	140	USING F28T5/841 PHILLIPS (35W) PROGRAMMED START
ADVERTISING KIOSK RAPID LOGO (24/7)	39	USING F28T5/841 PHILLIPS (39W) HO PROGRAMMED START
CITY BUS SHELTER LIGHTING PROGRAM	-	-
TOTAL	537	

PRELIMINARY
NOT FOR
CONSTRUCTION

NOTES:
1. SEE DWG. NOS. A-2A AND A-4A FOR ADDITIONAL INFORMATION.
2. NO LEAN BAR

STATION TYPE 2.1 (SINGLE 2' CANOPY)

DRAWINGS REQUIRED

T-1	A-5A	S-1A
A-1	A-6A	S-2
A-2A	A-7B	S-3
A-4A	A-7C	

2.1

NOTES:
1. SEE DWG. NOS. A-3A AND A-4A FOR ADDITIONAL INFORMATION.
2. NO LEAN BAR

STATION TYPE 2.2 (DOUBLE 2' CANOPY)

DRAWINGS REQUIRED

T-1	A-5A	S-1A
A-1	A-6A	S-2
A-3A	A-7B	S-3
A-4A	A-7C	

2.2

NOTES:
1. SEE DWG. NOS. A-2 AND A-4 FOR ADDITIONAL INFORMATION.
2. USE SHORT LEANBAR, SEE **A/A-7**

STATION TYPE 6.1 (SINGLE 6' CANOPY)

DRAWINGS REQUIRED

T-1	A-5B	A-8
A-1	A-6	S-1
A-2	A-7A	S-2
A-4	A-7B	S-3
	A-7C	

6.1

NOTES:
1. SEE DWG. NOS. A-3 AND A-4 FOR ADDITIONAL INFORMATION.
2. USE SHORT LEANBAR, SEE **A/A-7**

STATION TYPE 6.2 (DOUBLE 6' CANOPY)

DRAWINGS REQUIRED

T-1	A-5B	A-8
A-1	A-6	S-1
A-3	A-7A	S-2
A-4	A-7B	S-3
	A-7C	

6.2

NOTES:
1. SEE DWG. NOS. A-2 AND A-4 FOR ADDITIONAL INFORMATION.
2. USE LONG LEANBAR, SEE **B/A-7**

STATION TYPE 8.1 (SINGLE 8' CANOPY)

DRAWINGS REQUIRED

T-1	A-5C	A-8
A-1	A-6	S-1
A-2	A-7A	S-2
A-4	A-7B	S-3
	A-7C	

8.1

NOTES:
1. SEE DWG. NOS. A-3 AND A-4 FOR ADDITIONAL INFORMATION.
2. USE LONG LEANBAR, SEE **B/A-7**

STATION TYPE 8.2 (DOUBLE 8' CANOPY)

DRAWINGS REQUIRED

T-1	A-5C	A-8
A-1	A-6	S-1
A-2	A-7A	S-2
A-4	A-7B	S-3
	A-7C	

8.2

NOTES:
1. SEE DWG. NOS. A-2 AND A-4 FOR ADDITIONAL INFORMATION.
2. USE LONG LEANBAR, SEE **B/A-7**

STATION TYPE 10.1 (SINGLE 10' CANOPY)

DRAWINGS REQUIRED

T-1	A-5D	A-8
A-1	A-6	S-1
A-2	A-7A	S-2
A-4	A-7B	S-3
	A-7C	

10.1

NOTES:
1. SEE DWG. NOS. A-3 AND A-4 FOR ADDITIONAL INFORMATION.
2. USE LONG LEANBAR, SEE **B/A-7**

STATION TYPE 10.2 (DOUBLE 10' CANOPY)

DRAWINGS REQUIRED

T-1	A-5D	A-8
A-1	A-6	S-1
A-2	A-7A	S-2
A-4	A-7B	S-3
	A-7C	

10.2

DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03



LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

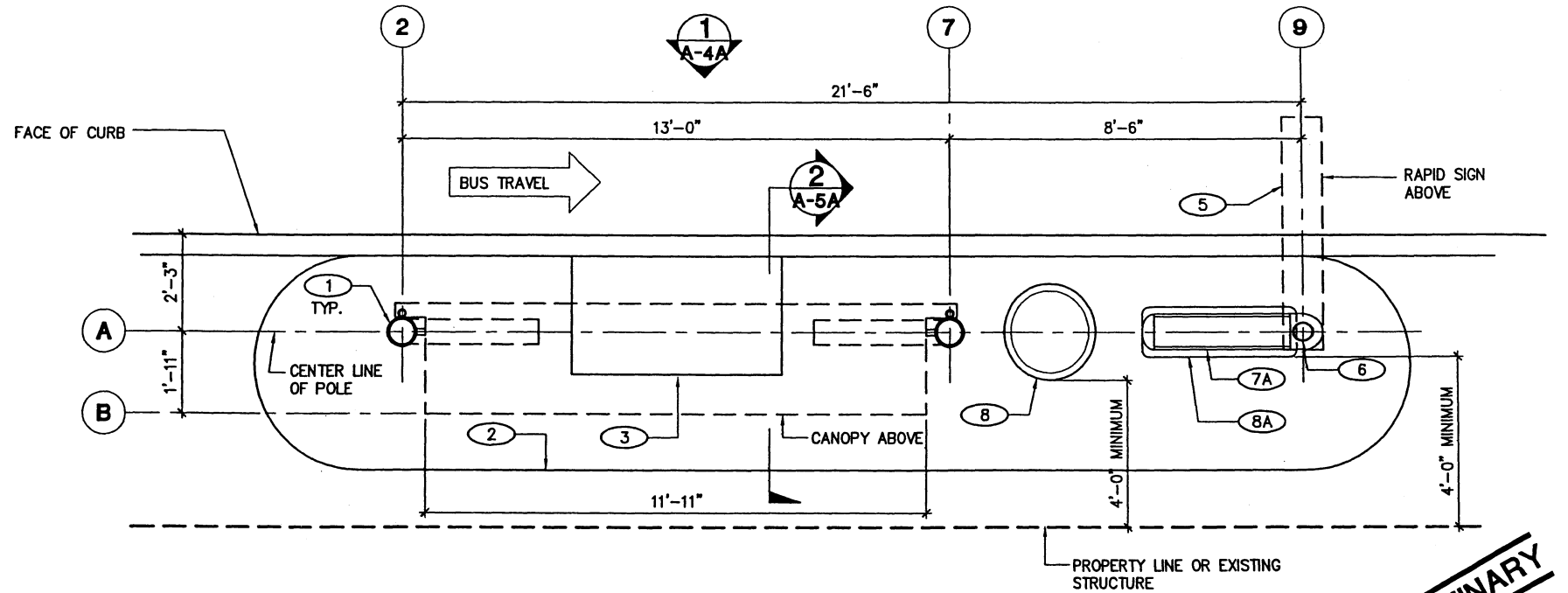
RECOMMENDED DATE APPROVED DATE

METRO RAPID EXPANSION
STATION STOPS
CANOPY PLAN VARIATIONS

FILE/JOB NUMBER PLOT FILES/A-1
SCALE 1/8"=1'-0"
DWG. NO. A-1
SHEET 2 OF 22

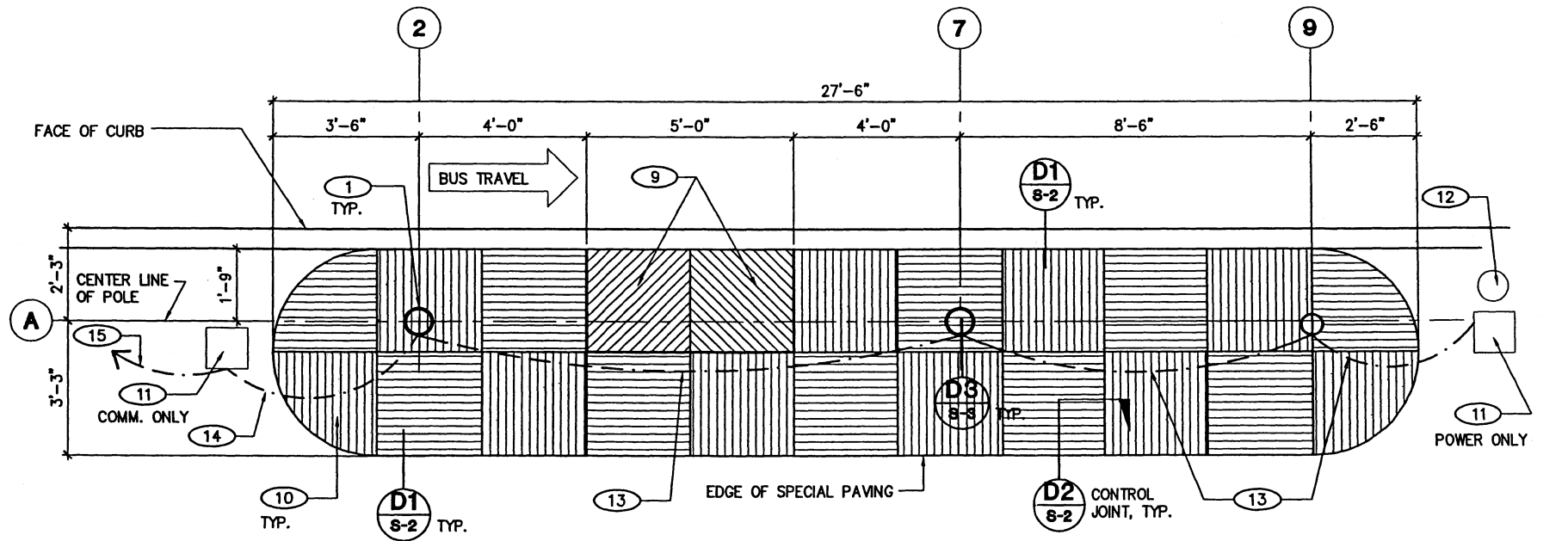
KEYNOTES:

- ① CANOPY SUPPORT POLE, SEE 1
8-1
- ② SPECIAL PAVING - DEMARCATES STATION AREA (SEE PAVING PLAN)
- ③ SPECIAL PAVING "CARPET" (CENTER ALIGNS WITH CENTER OF BUS DOOR)
- ④ NOT USED
- ⑤ "RAPID" SIGN - MOUNTED AT TOP OF "FLAGPOLE", PERPENDICULAR TO CURB, SEE DWG. NO. A-7A OR A-7B
- ⑥ "FLAGPOLE" - CARRIES "RAPID" SIGN AND MAP CASE, SEE DWG. NO. A-8
- ⑦A MAP CASE - ATTACHED TO "FLAGPOLE" ALONG GRID A, SEE DWG. NO. A-7B (WITH TRASH RECEPTACLE) OR A-7C WITHOUT TRASH RECEPTACLE)
- ⑧ 36 GAL. STAINLESS STEEL SIDE OPENING WITH DOME LID-URBAN RENAISSANCE WASTE RECEPTACLE, MODEL NO. SLURB-36SF, MANUFACTURED BY FORMS+SURFACES COMPANY, PHONE NO. 800 451 0410. RECEPTACLE SHALL BE ANCHORED TO THE PAVEMENT WITH STAINLESS STEEL HILTI-KWIK BOLTS.
- ⑧A ALTERNATE TRASH RECEPTACLE STAINLESS STEEL WITH HINGED OPERABLE SERVICE DOOR.
- ⑨ 5'-0"x2'-6" STAMPED CONCRETE CARPET WITH INTEGRAL COLOR, SEE DETAIL D1
8-2
- ⑩ CUSTOM STAMPED CONCRETE PAVING WITH INTEGRAL COLOR, 2'-6"x2'-6" MODULE, SEE DETAIL D1
8-2
- ⑪ POINT OF CONNECTION - PROVIDE NEW CONCRETE PULL BOX, TRAFFIC TYPE PB2
- ⑫ NEW GROUNDING ELECTRODE WELL, GROUND AND BOND, SEE B
8-3
- ⑬ 1" CONDUIT AND 2#12 AND 1#12 GROUND
- ⑭ 1 1/2" CONDUIT AND COMMUNICATION WIRING. CONTRACTOR TO PROVIDE SIGNAGE MANUFACTURER REQUIRED WIRING.
- ⑮ 1 1/2" CONDUIT TO TRAFFIC SIGNAL SYSTEM.



PLAN
SCALE: 1/2"=1'-0" 1
-

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PAVING AND ELECTRICAL PLAN 2
-
SCALE: 1/2"=1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	09/29/03	DATE	09/29/03
DRAWN BY MM	11/19/03	DATE	11/19/03
CHECKED TB	11/26/03	DATE	11/26/03



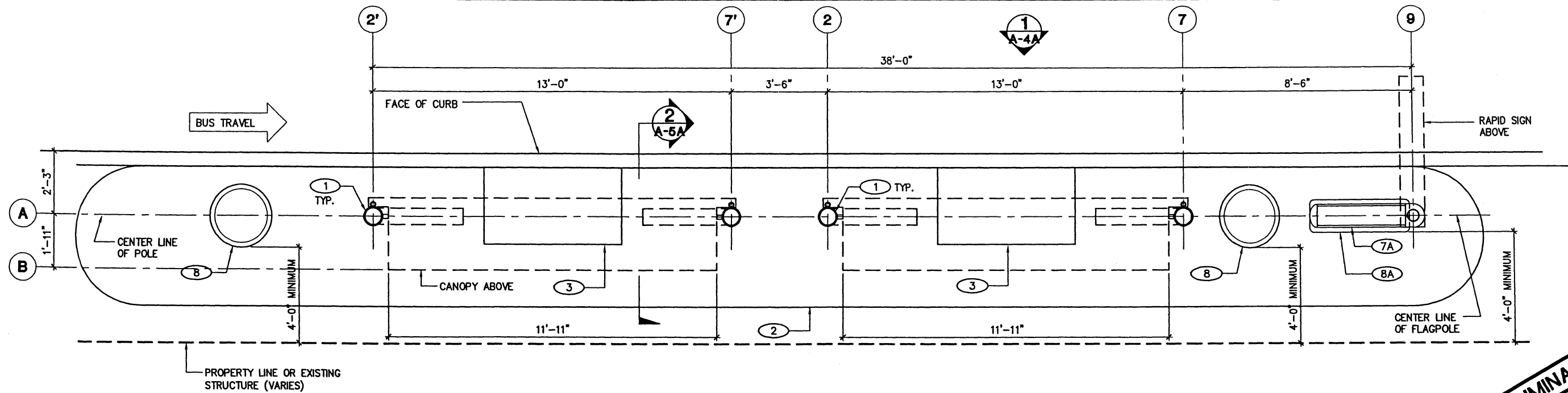
Metro

LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

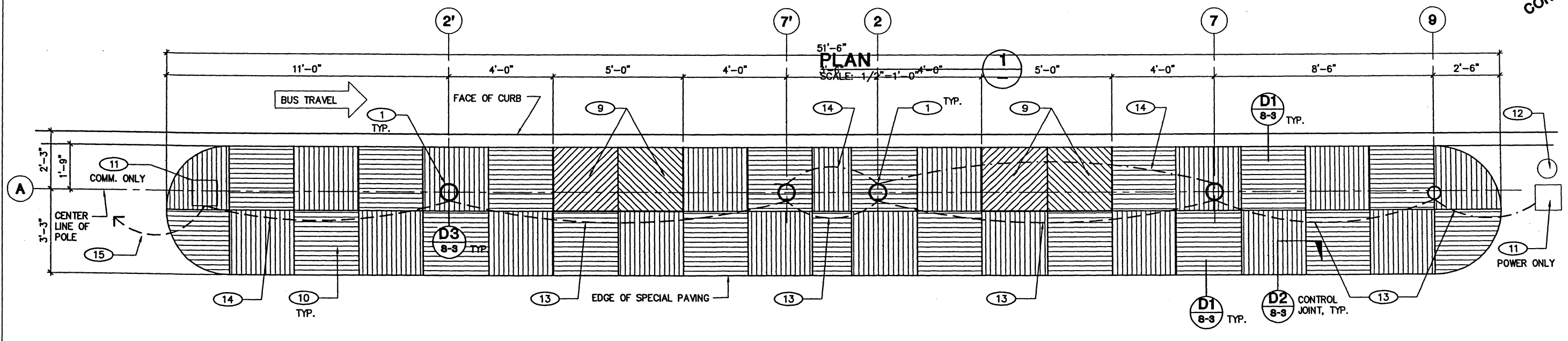
METRO RAPID EXPANSION
STATION STOPS

STATION PLAN - SINGLE CANOPY
TYPE 2.1 AND TYPE 2.1A

FILE/JOB NUMBER PLOT FILES/A-2A	SCALE AS SHOWN
DWG. NO. A-2A	SHEET 4 OF 22



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CONSTRUCTION**



KEYNOTES:

- ① CANOPY SUPPORT POLE, SEE ①/8-1
- ② SPECIAL PAVING - DEMARCATES STATION AREA (SEE PAVING PLAN)
- ③ SPECIAL PAVING "CARPET" (CENTER ALIGNS WITH CENTER OF BUS DOOR)
- ④ LEAN BAR - SEE DWG. NO. A-8
- ⑤ "RAPID" SIGN - MOUNTED AT TOP OF "FLAGPOLE", PERPENDICULAR TO CURB, SEE DWG. NO. A-7
- ⑥ "FLAGPOLE" - CARRIES "RAPID" SIGN AND MAP KIOSK, SEE DWG. NO. A-7
- ⑦ AD KIOSK - ATTACHED TO "FLAGPOLE", SEE DWG. NO. A-7A
- ⑦A ALTERNATE MAP CASE - ATTACHED TO "FLAGPOLE", SEE DWG. NO. A-7B
- ⑧ 36 GAL. STAINLESS STEEL SIDE OPENING WITH DOME LID-URBAN RENAISSANCE WASTE RECEPTACLE, MODEL NO. SLURB-36SF, MANUFACTURED BY FORMS+SURFACES COMPANY. PHONE NO. 800 451 0410. RECEPTACLE SHALL BE ANCHORED TO THE PAVEMENT WITH STAINLESS STEEL HILTI-KWK BOLTS.
- ⑧A ALTERNATE TRASH RECEPTACLE. STAINLESS STEEL WITH HINGED OPERABLE SERVICE DOOR.

PAVING AND ELECTRICAL PLAN ②
SCALE: 1/2"=1'-0"

- ⑨ 5'-0"x2'-6" STAMPED CONCRETE CARPET WITH INTEGRAL COLOR, SEE DETAIL D1/8-2
- ⑩ CUSTOM STAMPED CONCRETE PAVING WITH INTEGRAL COLOR, 2'-6"x2'-6" MODULE, SEE DETAIL D1/8-2
- ⑪ POINT OF CONNECTION - PROVIDE NEW CONCRETE PULL BOX, TRAFFIC TYPE PB2
- ⑫ NEW GROUNDING ELECTRODE WELL. GROUND AND BOND, SEE B/8-3
- ⑬ 1" CONDUIT AND 2#12 AND 1#12 GROUND
- ⑭ 1 1/2" CONDUIT AND COMMUNICATION WIRING. CONTRACTOR TO PROVIDE SIGNAGE MANUFACTURER REQUIRED WIRING.
- ⑮ 1 1/2" CONDUIT TO TRAFFIC SIGNAL SYSTEM.

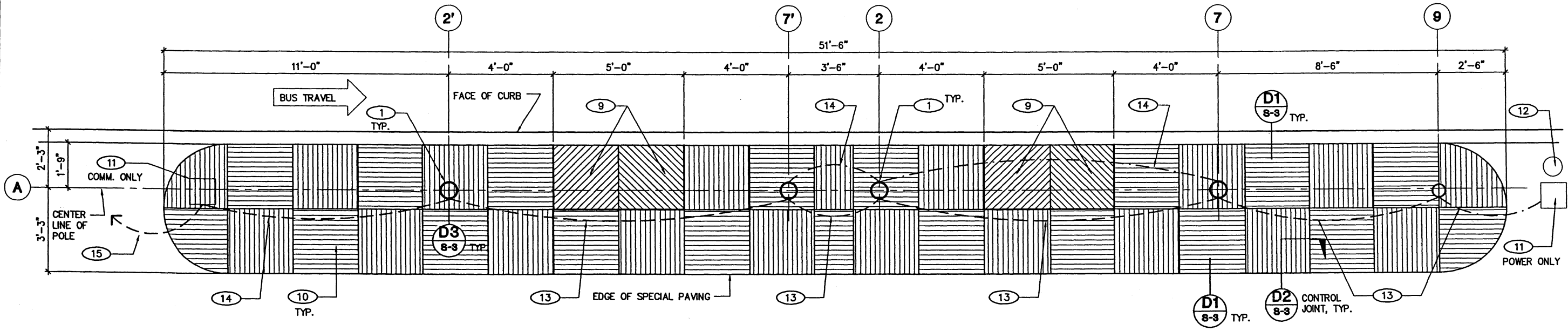
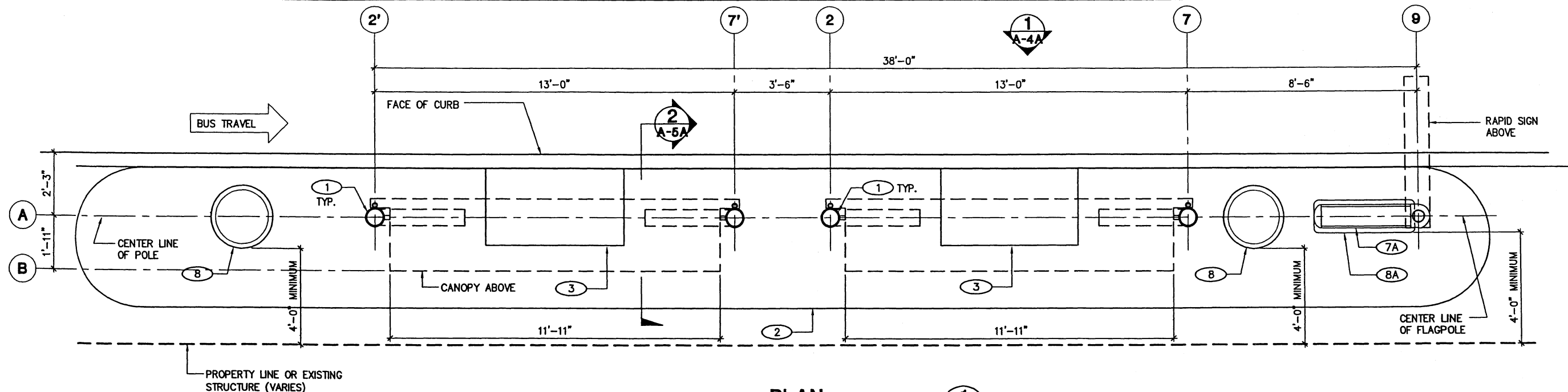
REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03



LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION STATION STOPS	
STATION PLAN - DOUBLE CANOPY TYPE 6.2, TYPE 8.2 AND TYPE 10.2	FILE/JOB NUMBER PLOT FILES/A-3 SCALE SCALE DWC. NO. A-3 SHEET 5 OF 22



KEYNOTES:

- ① CANOPY SUPPORT POLE, SEE ① 8-2
- ② SPECIAL PAVING - DEMARCATES STATION AREA (SEE PAVING PLAN)
- ③ SPECIAL PAVING "CARPET" (CENTER ALIGNS WITH CENTER OF BUS DOOR)
- ④ NOT USED
- ⑤ "RAPID" SIGN - MOUNTED AT TOP OF "FLAGPOLE", PERPENDICULAR TO CURB, SEE DWG. NO. A-7A
- ⑥ "FLAGPOLE" - CARRIES "RAPID" SIGN AND MAP KIOSK, SEE DWG. NOS. S-2 AND S-3
- ⑦A MAP CASE - ATTACHED TO "FLAGPOLE" ALONG GRID A, SEE A-7A OR A-7B
- ⑧ 36 GAL. STAINLESS STEEL SIDE OPENING WITH DOME LID-URBAN RENAISSANCE WASTE RECEPTACLE, MODEL NO. SLURB-36SF, MANUFACTURED BY FORMS+SURFACES COMPANY. PHONE NO. 800 451 0410. RECEPTACLE SHALL BE ANCHORED TO THE PAVEMENT WITH STAINLESS STEEL HILTI-KWIK BOLTS.
- ⑧A ALTERNATE TRASH RECEPTACLE STAINLESS STEEL WITH HINGED OPERABLE SERVICE DOOR.
- ⑨ 5'-0"x2'-6" STAMPED CONCRETE CARPET WITH INTEGRAL COLOR, SEE DETAIL D1 8-2
- ⑩ CUSTOM STAMPED CONCRETE PAVING WITH INTEGRAL COLOR, 2'-6"x2'-6" MODULE, SEE DETAIL D1 8-2
- ⑪ POINT OF CONNECTION - PROVIDE NEW CONCRETE PULL BOX, TRAFFIC TYPE
- ⑫ NEW GROUNDING ELECTRODE WELL. GROUND AND BOND, SEE B 8-3
- ⑬ 1" CONDUIT AND 2#12 AND 1#12 GROUND
- ⑭ 1" CONDUIT AND COMMUNICATION WIRING. CONTRACTOR TO PROVIDE SIGNAGE MANUFACTURER REQUIRED WIRING.

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CONSTRUCTION**

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
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LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

RECOMMENDED DATE APPROVED DATE

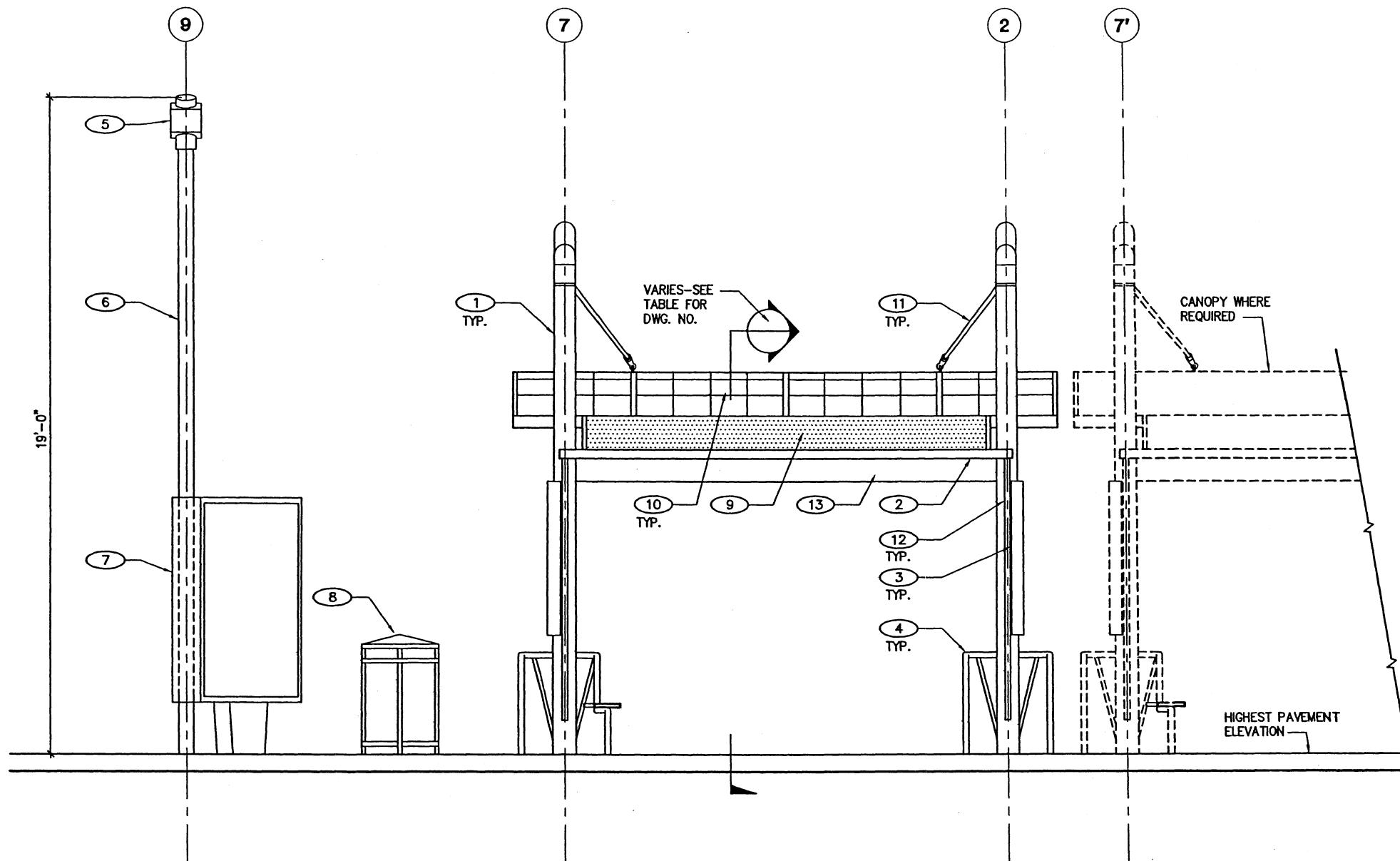
METRO RAPID EXPANSION
STATION STOPS

STATION PLAN - DOUBLE CANOPY
TYPE 2.2 AND TYPE 2.2A

FILE/DR NUMBER PLOT FILES/A-3A
SCALE SCALE
DWG. NO. A-3A
SHEET 6 OF 22

KEYNOTES:

- ① CANOPY SUPPORT POLE, SEE DWG. NO. S-1 AND S-3
- ② SHEET METAL GUTTER, SEE **A**
A-8
- ③ STOP IDENTIFIER SIGN MOUNT, SEE DWG. NO. S-3
- ④ LEAN BAR - SEE DWG. NO. A-8
- ⑤ "RAPID" SIGN - MOUNTED AT TOP OF "FLAGPOLE", PERPENDICULAR TO CURB, SEE DWG. NO. A-7
- ⑥ "FLAGPOLE" - CARRIES "RAPID" SIGN AND MAP KIOSK, SEE DWG. NO. A-7
- ⑦ AD KIOSK - ATTACHED TO "FLAGPOLE" ROTATE 45°, SEE DWG. NO. A-2 AND A-3 FOR LOCATIONS AND DWG. NOS A-8 FOR DETAILS
- ⑧ WASTE RECEPTACLE, SEE KEYNOTE ⑧ ON DWG. NO. A-2 OR A-3 FOR DESCRIPTIONS.
- ⑨ SHEET METAL PANEL
- ⑩ TRANSLUCENT PANELS
- ⑪ TIE ROD
- ⑫ DOWNSPOUT - 2" GALV. METAL PIPE ATTACHED TO POLE WITH 3 CLIP ANGLES (TYP.)
- ⑬ STEEL TUBE CROSSBAR



FRONT ELEVATION ①
SCALE: 1/2"=1'-0"

STATION	DRAWING NUMBER
TYPE 6.1 OR TYPE 6.2	A-5B
TYPE 8.1 OR TYPE 8.2	A-5C
TYPE 10.1 OR TYPE 10.2	A-5D

PRELIMINARY
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CONSTRUCTION

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
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CHECKED TB	DATE 11/26/03



LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION
STATION STOPS

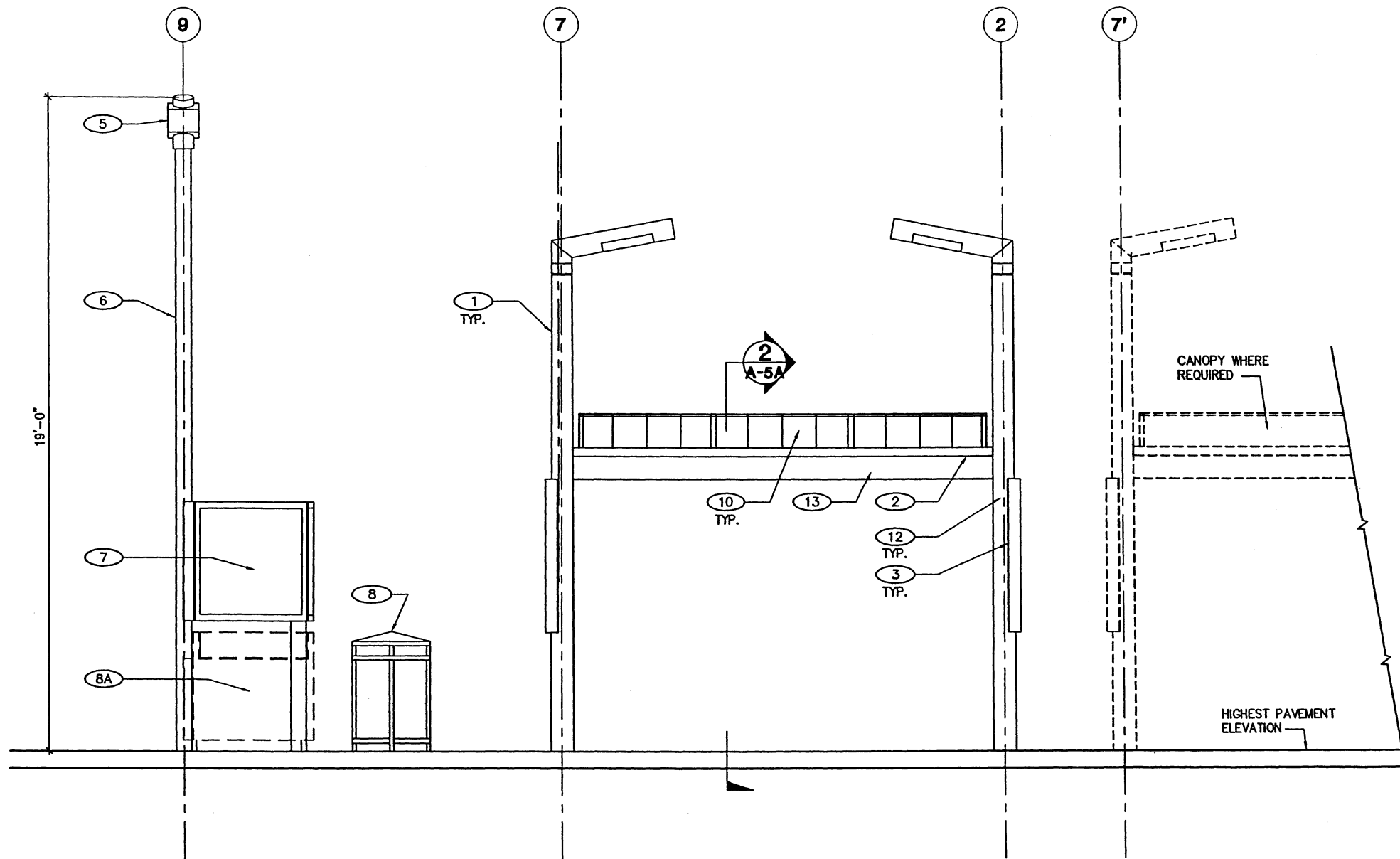
ELEVATION - SINGLE/DOUBLE CANOPY -
6 FT., 8 FT., 10 FT. WIDE CANOPIES

FILE/JOB NUMBER PLOT FILES/A-4
SCALE AS SHOWN
DWG. NO. A-4
SHEET 7 OF 22

RECOMMENDED _____ DATE _____ APPROVED _____ DATE _____

KEYNOTES:

- ① CANOPY SUPPORT POLE, SEE DWG. NO. S-1 AND S-3
- ② SHEET METAL FLASHING, SEE **(A)**
S-8A
- ③ STOP IDENTIFIER SIGN MOUNT, SEE DWG. NO. S-3
- ④ NOT USED
- ⑤ "RAPID" SIGN - MOUNTED AT TOP OF "FLAGPOLE", PERPENDICULAR TO CURB, SEE DWG. NO. A-8
- ⑥ "FLAGPOLE" - CARRIES "RAPID" SIGN AND MAP KIOSK, SEE DWG. NO. A-8
- ⑦ MAP CASE - ATTACHED TO "FLAGPOLE" ALIGN ALONG GRID 1, SEE DWG. NO. A-2A AND A-3A FOR LOCATIONS AND DWG. NOS A-7B OR A-7C FOR DETAILS.
- ⑧ ALTERNATE WASTE RECEPTACLE, SEE KEYNOTE **(8A)** ON DWG. NO. A-2A
- (8A)** ALTERNATE TRASH RECEPTACLE STAINLESS STEEL WITH HINGED OPERABLE SERVICE DOOR.
- ⑨ SHEET METAL PANEL
- ⑩ TRANSLUCENT PANELS
- ⑪ TIE ROD
- ⑫ DOWNSPOUT - 2"Ø GALV. METAL PIPE ATTACHED TO POLE WITH 3 CLIP ANGLES (TYP.)
- ⑬ STEEL TUBE CROSSBAR



FRONT ELEVATION 1
SCALE: 1/2"=1'-0"

STATION	DRAWING NUMBER
TYPE 6.1 OR TYPE 6.2	A-5A
TYPE 8.1 OR TYPE 8.2	A-5B
TYPE 10.1 OR TYPE 10.2	A-5C

PRELIMINARY
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CONSTRUCTION

REV.	DATE	BY	APP.	DESCRIPTION

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LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION
STATION STOPS

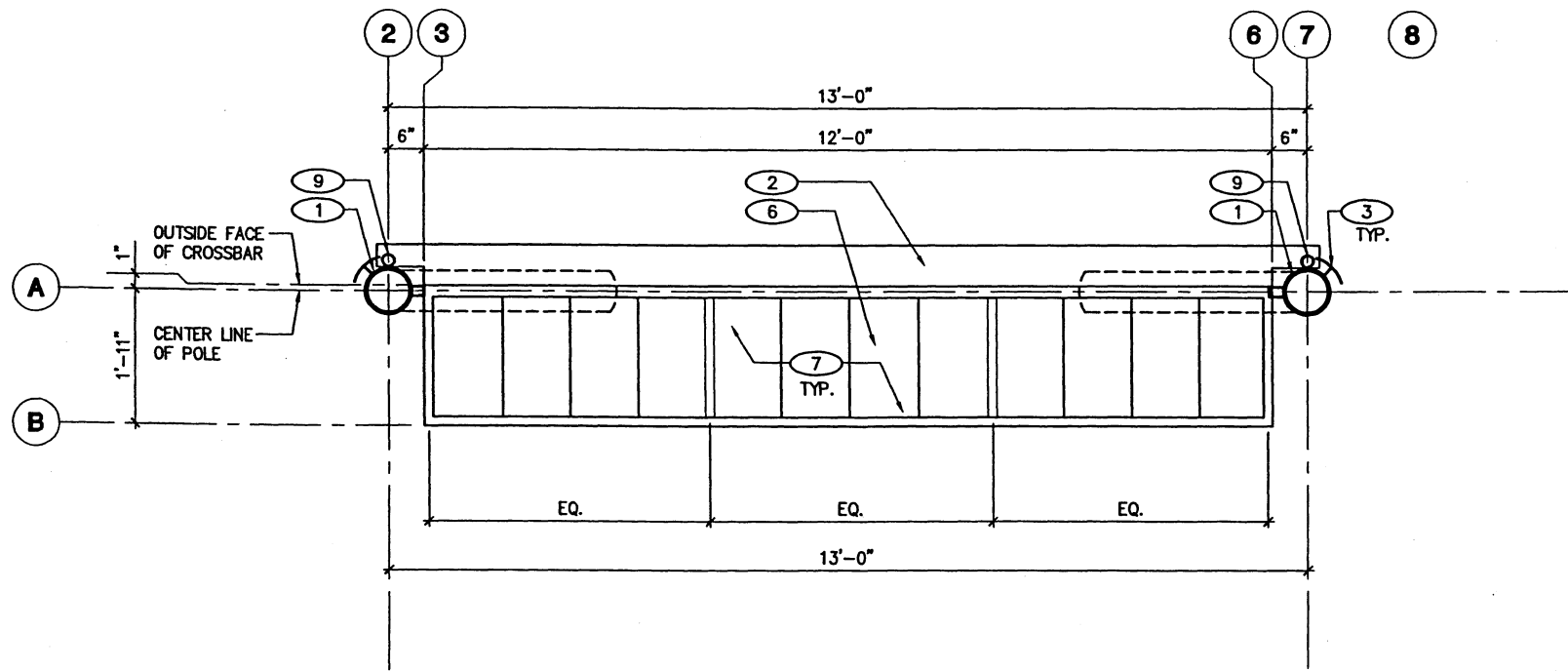
ELEVATION - SINGLE/DOUBLE CANOPY
FOR 2 FOOT WIDE CANOPY

FILE/JOB NUMBER PLOT FILES/A-4A
SCALE AS SHOWN
DWG. NO. A-4A
SHEET 8 OF 22

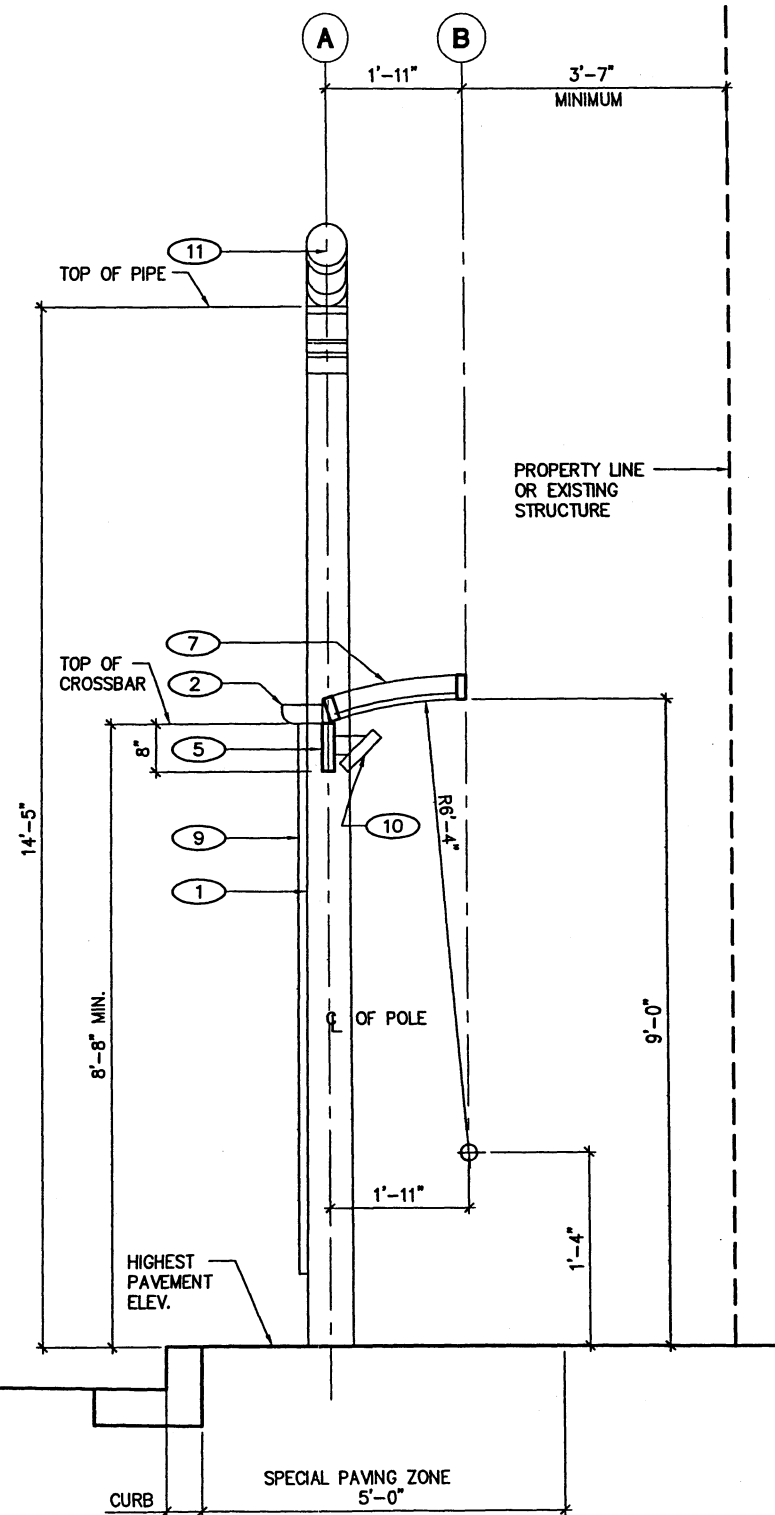
KEYNOTES:

- ① CANOPY SUPPORT POLE, SEE DWG. NO. S-1 AND S-3
- ② SHEET METAL GUTTER, SEE **A**
A-6A
- ③ STOP IDENTIFIER SIGN MOUNT, SEE DWG. NO. S-3
- ④ NOT USED
- ⑤ STEEL TUBE CROSSBAR, SEE **A** **B**
A-6A **S-1A**
- ⑥ NOT USED
- ⑦ TRANSLUCENT PANELS
- ⑧ NOT USED
- ⑨ DOWNSPOUT - 2"Ø GALV. METAL PIPE ATTACHED TO POLE WITH 3 CLIP ANGLES (TYP.)
- ⑩ VARIABLE MESSAGE SIGN
- ⑪ LUMINAIRE (PAINT LUMINAIRE ENCLOSURE.)

**PRELIMINARY
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CONSTRUCTION**



ROOF PLAN
SCALE: 3/4"=1'-0" **1**



SECTION
SCALE: 3/4"=1'-0" **2**

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
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LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

RECOMMENDED DATE APPROVED DATE

METRO RAPID EXPANSION
STATION STOPS

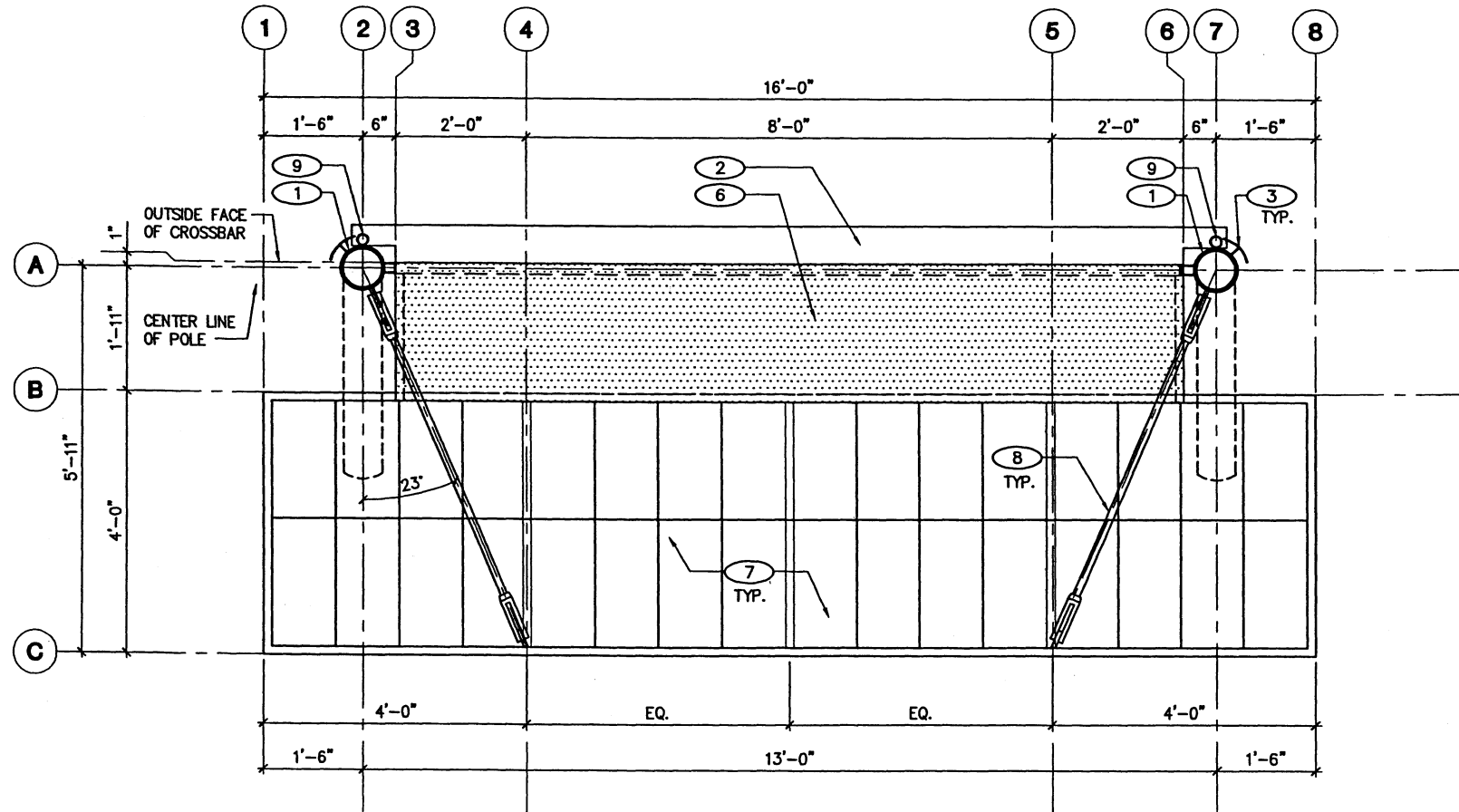
PLAN AND SECTION
2 FOOT WIDE CANOPY

FILE/JOB NUMBER PLOT FILES/A-5A
SCALE AS SHOWN
DWG. NO. A-5A
SHEET 9 OF 22

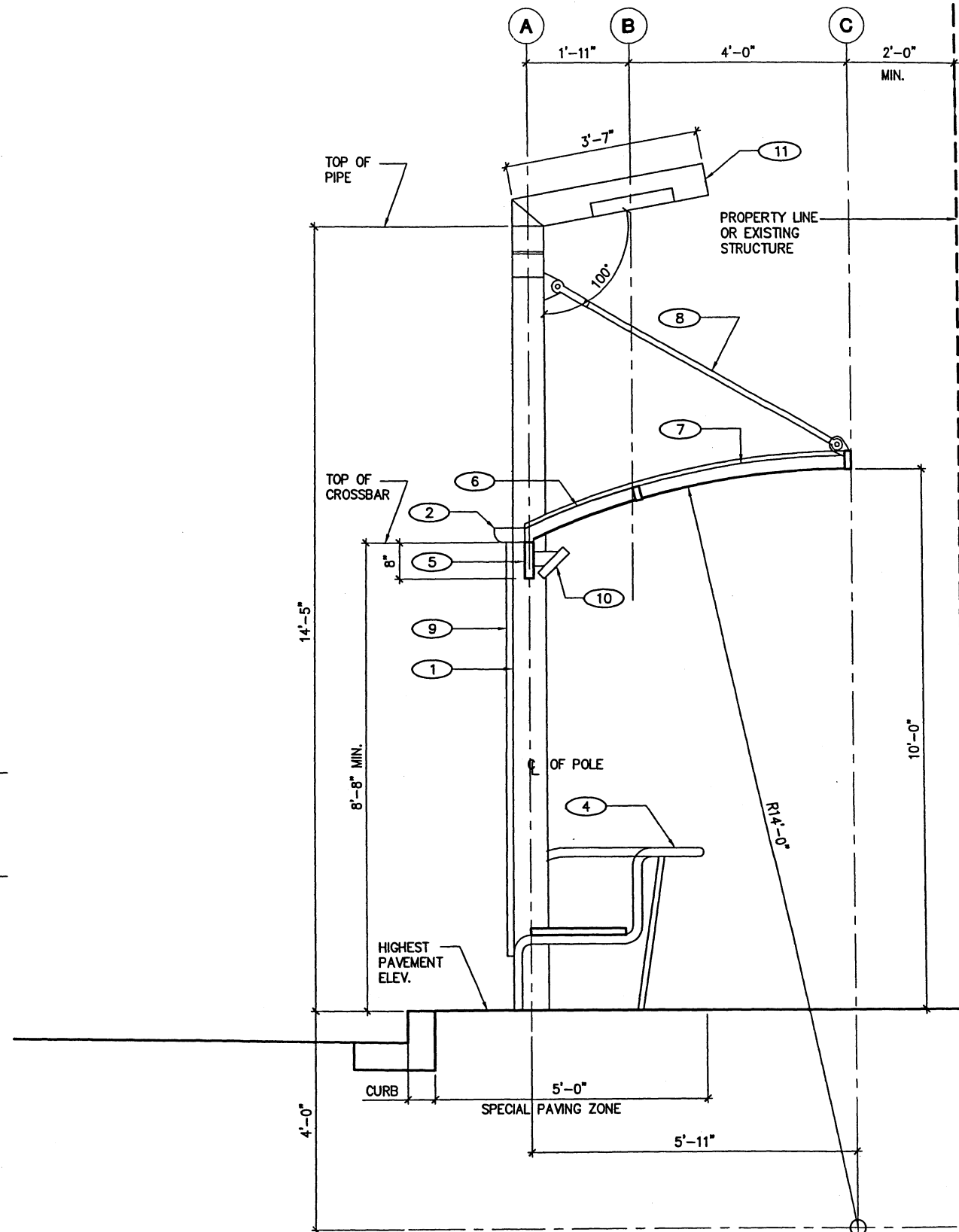
KEYNOTES:

- ① CANOPY SUPPORT POLE, SEE DWG. NO. S-1 AND S-3
- ② SHEET METAL GUTTER, SEE **A**
A-8
- ③ STOP IDENTIFIER SIGN MOUNT, SEE DWG. NO. S-3
- ④ LEAN BAR - SEE DWG. NO. A-7
- ⑤ STEEL TUBE CROSSBAR, SEE **A** **B**
A-8 8-1
- ⑥ SHEET METAL PANEL
- ⑦ TRANSLUCENT PANELS
- ⑧ TIE ROD
- ⑨ DOWNSPOUT - 2" GALV. METAL PIPE ATTACHED TO POLE WITH 3 CLIP ANGLES (TYP.)
- ⑩ VARIABLE MESSAGE SIGN
- ⑪ LUMINAIRE (PAINT LUMINAIRE ENCLOSURE.)

**PRELIMINARY
NOT FOR
CONSTRUCTION**



ROOF PLAN ①
SCALE: 3/4"=1'-0"



SECTION ②
SCALE: 3/4"=1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
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LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

**METRO RAPID EXPANSION
STATION STOPS**

**PLAN AND SECTION
6 FOOT WIDE CANOPY**

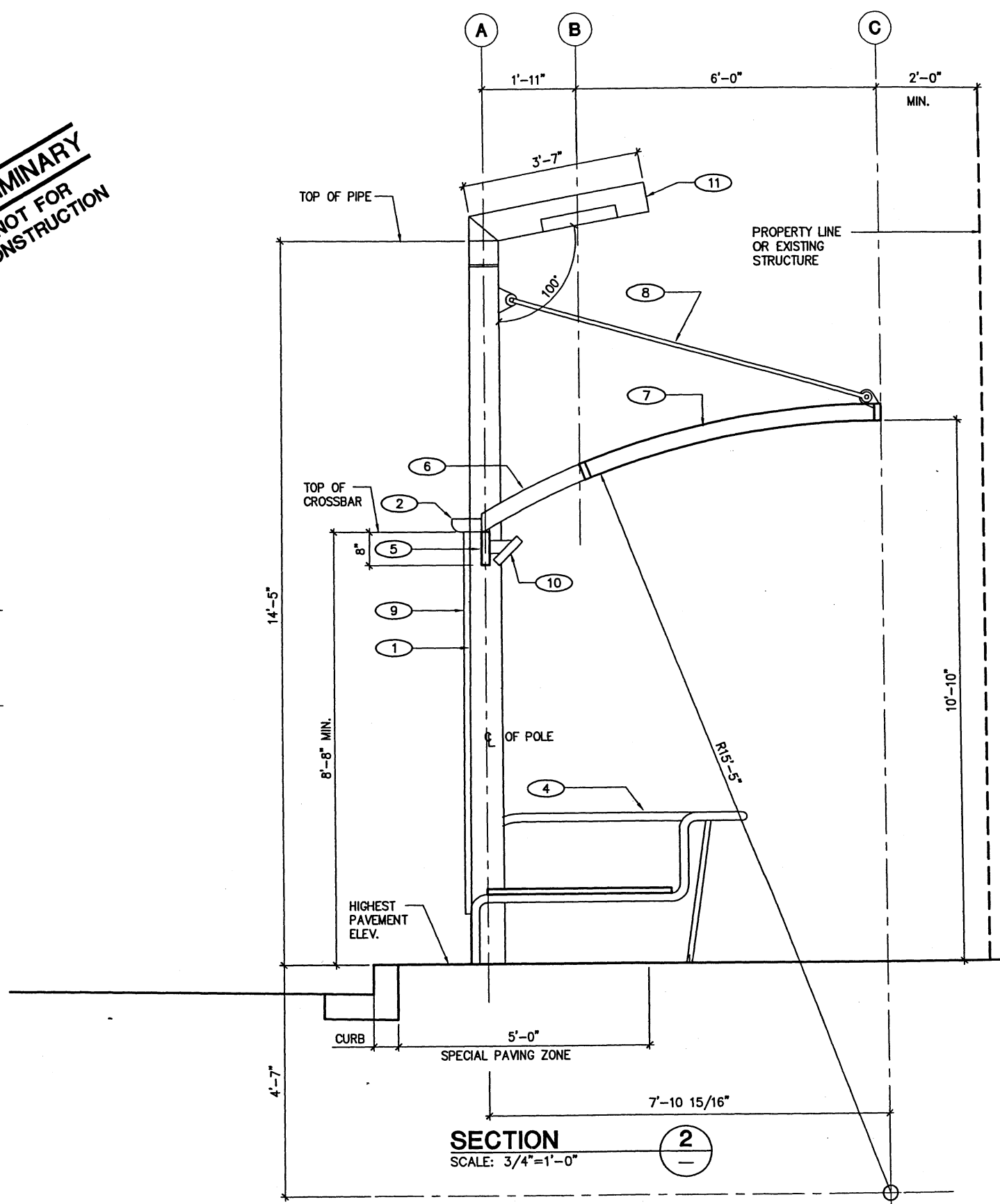
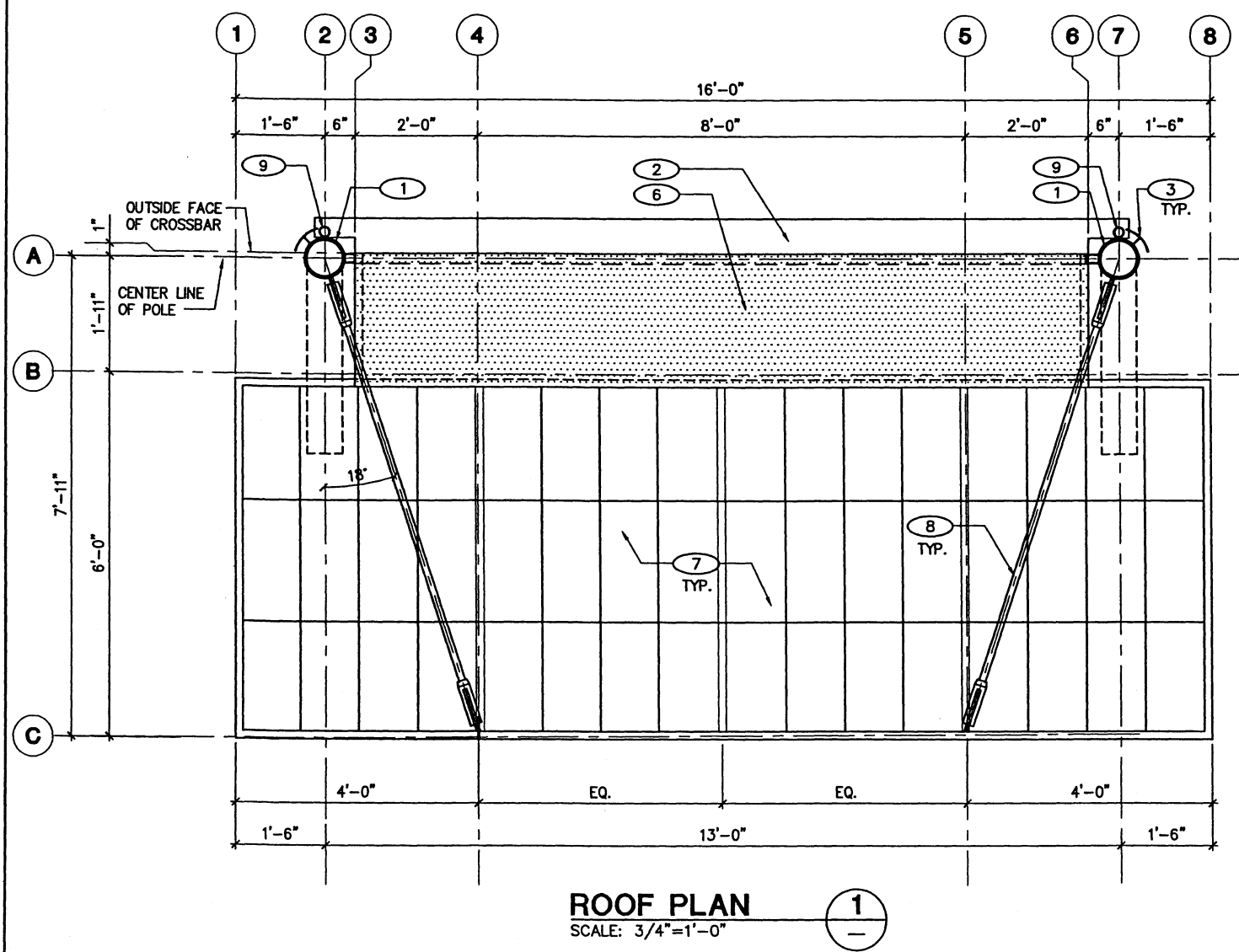
FILE/JOB NUMBER PLOT FILES/A-58
SCALE AS SHOWN
DWG. NO. A-5B
SHEET 10 OF 22

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KEYNOTES:

- 1 CANOPY SUPPORT POLE, SEE DWG. NO. S-1 AND S-3
- 2 SHEET METAL GUTTER, SEE A
A-6
- 3 STOP IDENTIFIER SIGN MOUNT, SEE DWG. NO. S-3
- 4 LEAN BAR - SEE DWG. NO. A-7
- 5 STEEL TUBE CROSSBAR, SEE A
A-6 B
S-1
- 6 SHEET METAL PANEL
- 7 TRANSLUCENT PANELS
- 8 TIE ROD
- 9 DOWNSPOUT - 2"Ø GALV. METAL PIPE ATTACHED TO POLE WITH 3 CLIP ANGLES (TYP.)
- 10 VARIABLE MESSAGE SIGN
- 11 LUMINAIRE (PAINT LUMINAIRE ENCLOSURE.)

**PRELIMINARY
NOT FOR
CONSTRUCTION**



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03



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LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION
STATION STOPS

PLAN AND SECTION
8 FOOT WIDE CANOPY

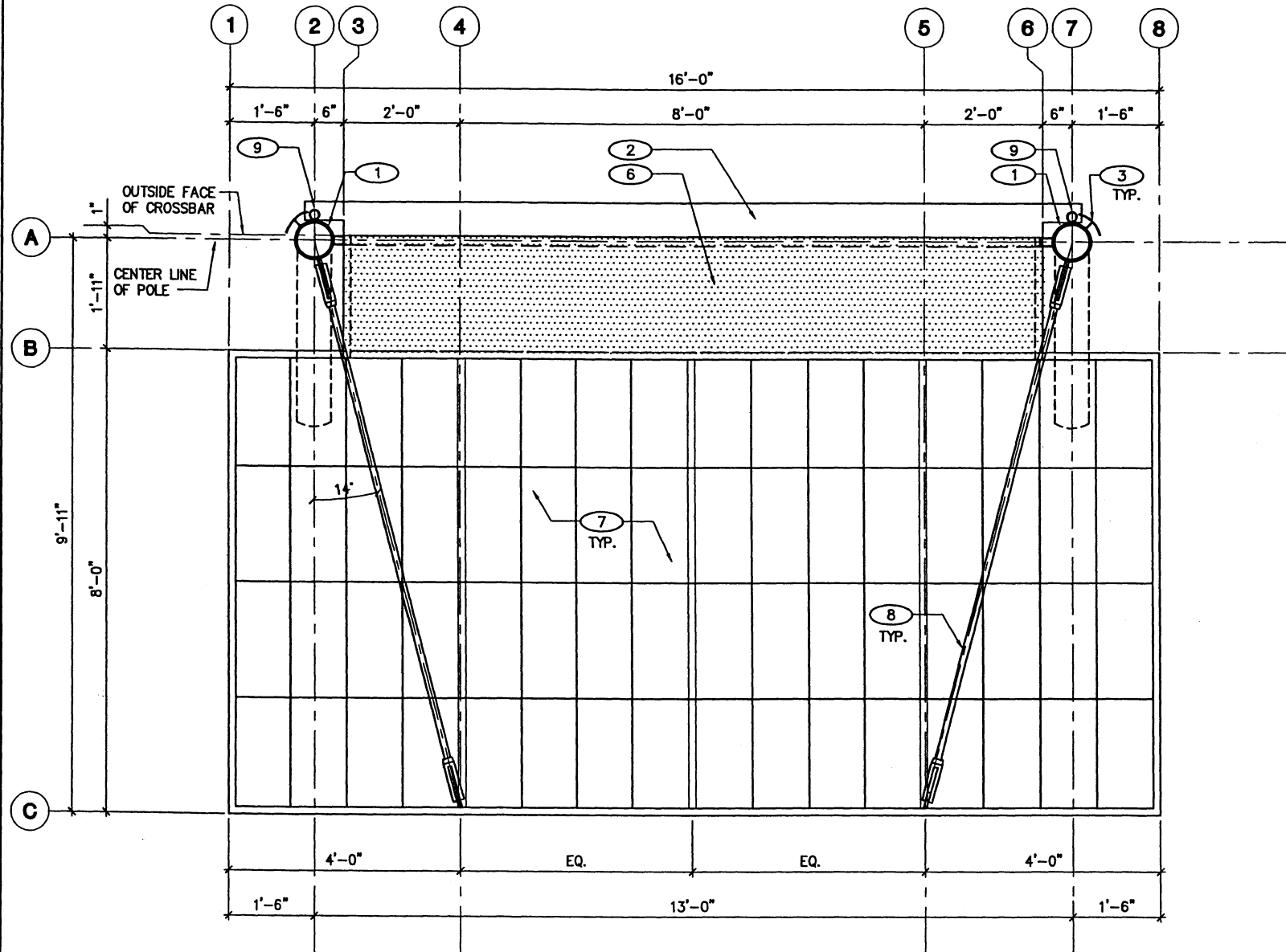
FILE/JOB NUMBER PLOT FILES/A-5C	SCALE AS SHOWN
DWG. NO. A-5C	SHEET 11 OF 22

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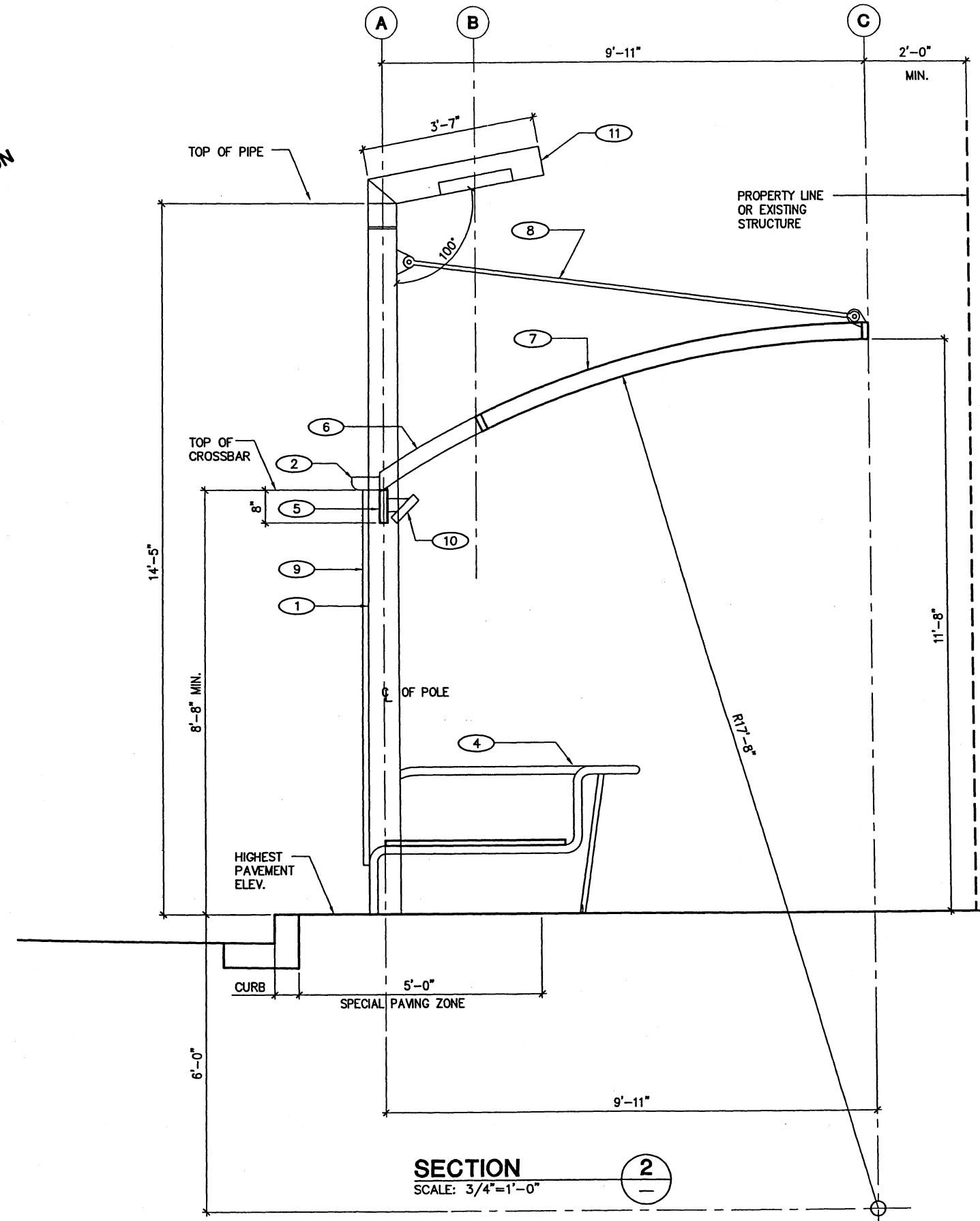
KEYNOTES:

- ① CANOPY SUPPORT POLE, SEE DWG. NO. S-1 AND S-3
- ② SHEET METAL GUTTER, SEE **A**
A-6
- ③ STOP IDENTIFIER SIGN MOUNT, SEE DWG. NO. S-3
- ④ LEAN BAR - SEE DWG. NO. A-7
- ⑤ STEEL TUBE CROSSBAR, SEE **A** **B**
A-6 **S-1**
- ⑥ SHEET METAL PANEL
- ⑦ TRANSLUCENT PANELS
- ⑧ TIE ROD
- ⑨ DOWNSPOUT - 2"Ø GALV. METAL PIPE ATTACHED TO POLE WITH 3 CLIP ANGLES (TYP.)
- ⑩ VARIABLE MESSAGE SIGN
- ⑪ LUMINAIRE (PAINT LUMINAIRE ENCLOSURE.)

**PRELIMINARY
NOT FOR
CONSTRUCTION**



ROOF PLAN ①
SCALE: 3/4"=1'-0"



SECTION ②
SCALE: 3/4"=1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03

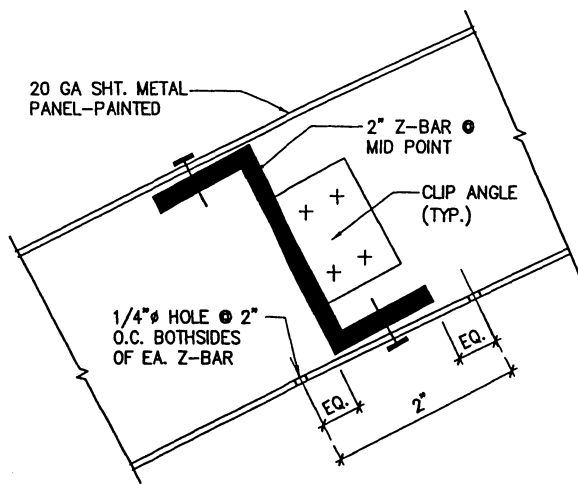


LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

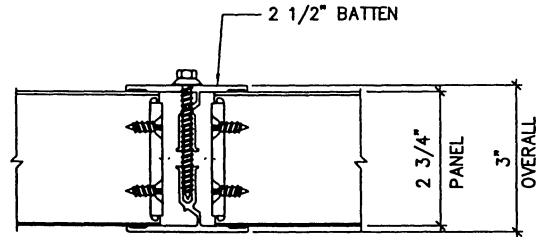
METRO RAPID EXPANSION
STATION STOPS
PLAN AND SECTION
10 FOOT WIDE CANOPY

FILE/JOB NUMBER PLOT FILES/A-5D
SCALE AS SHOWN
DWG. NO. A-5D
SHEET 12 OF 22

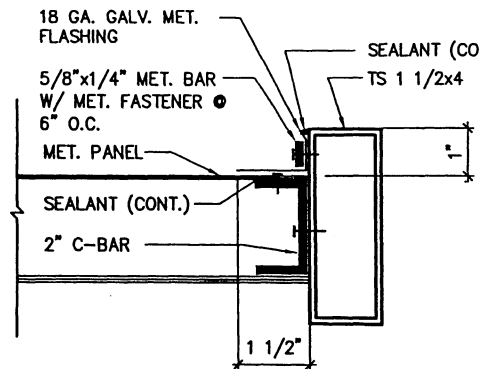
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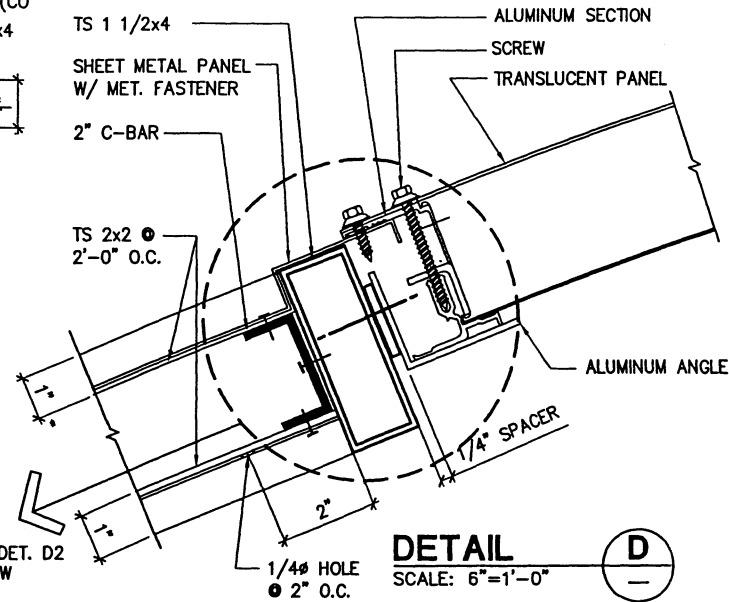
ENLARGED DETAIL A
SCALE: FULL



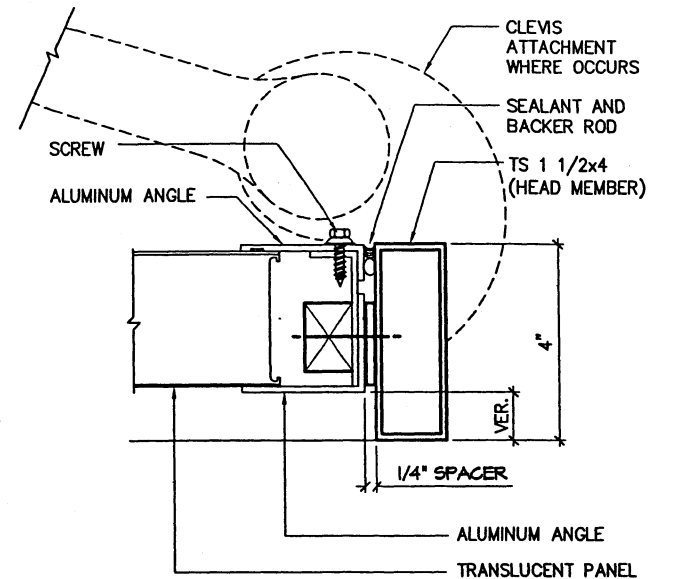
DETAIL B
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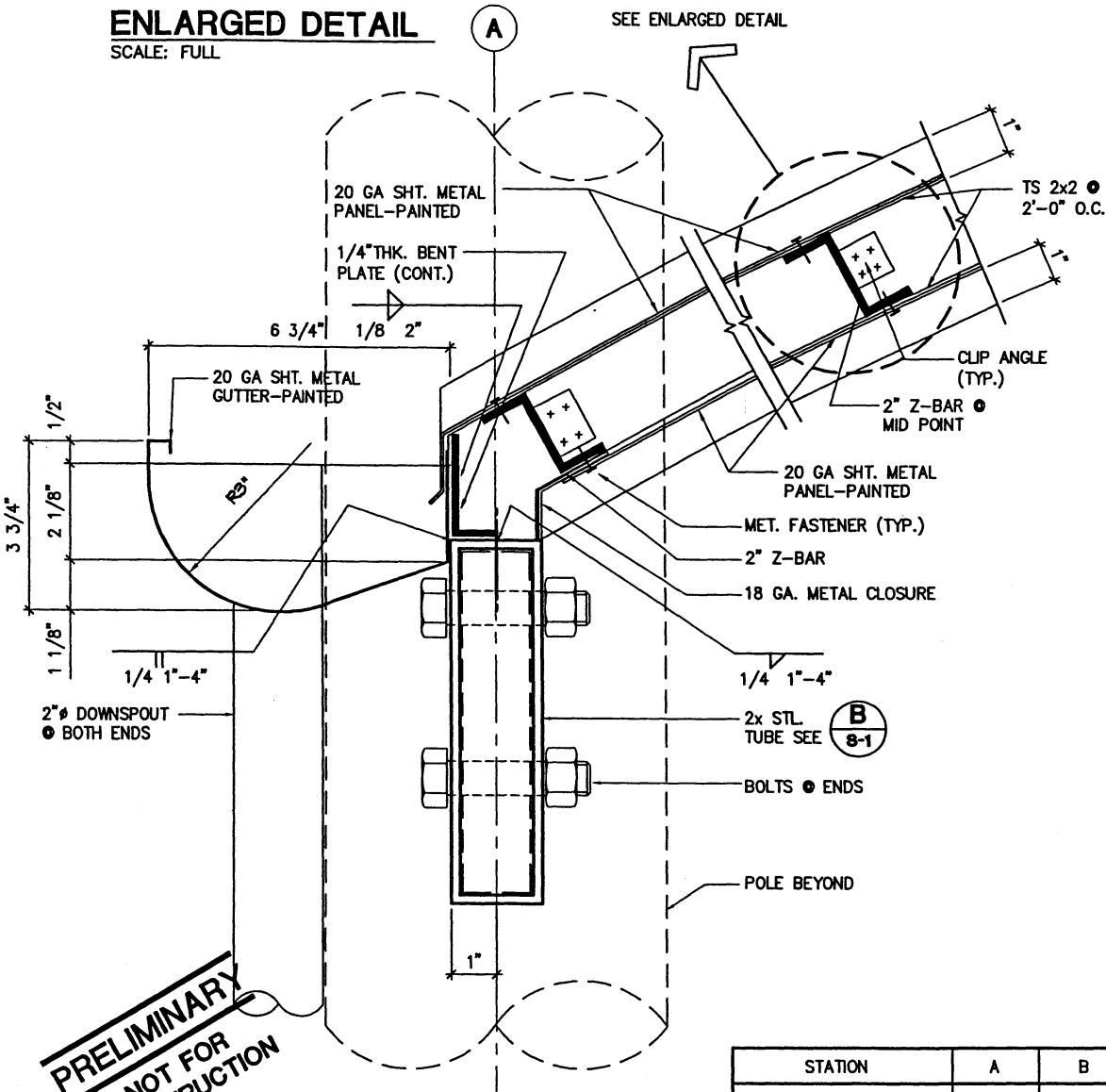
DETAIL C
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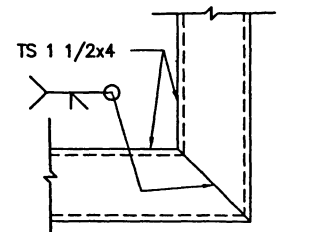
DETAIL D
SCALE: 6\"/>



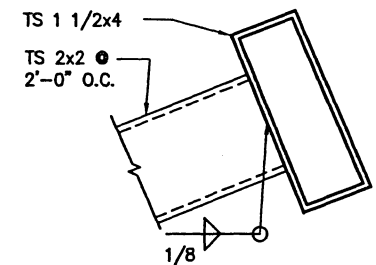
DETAIL E
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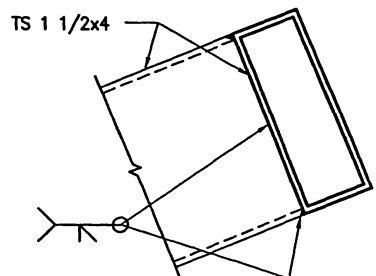
DETAIL A
SCALE: 6\"/>



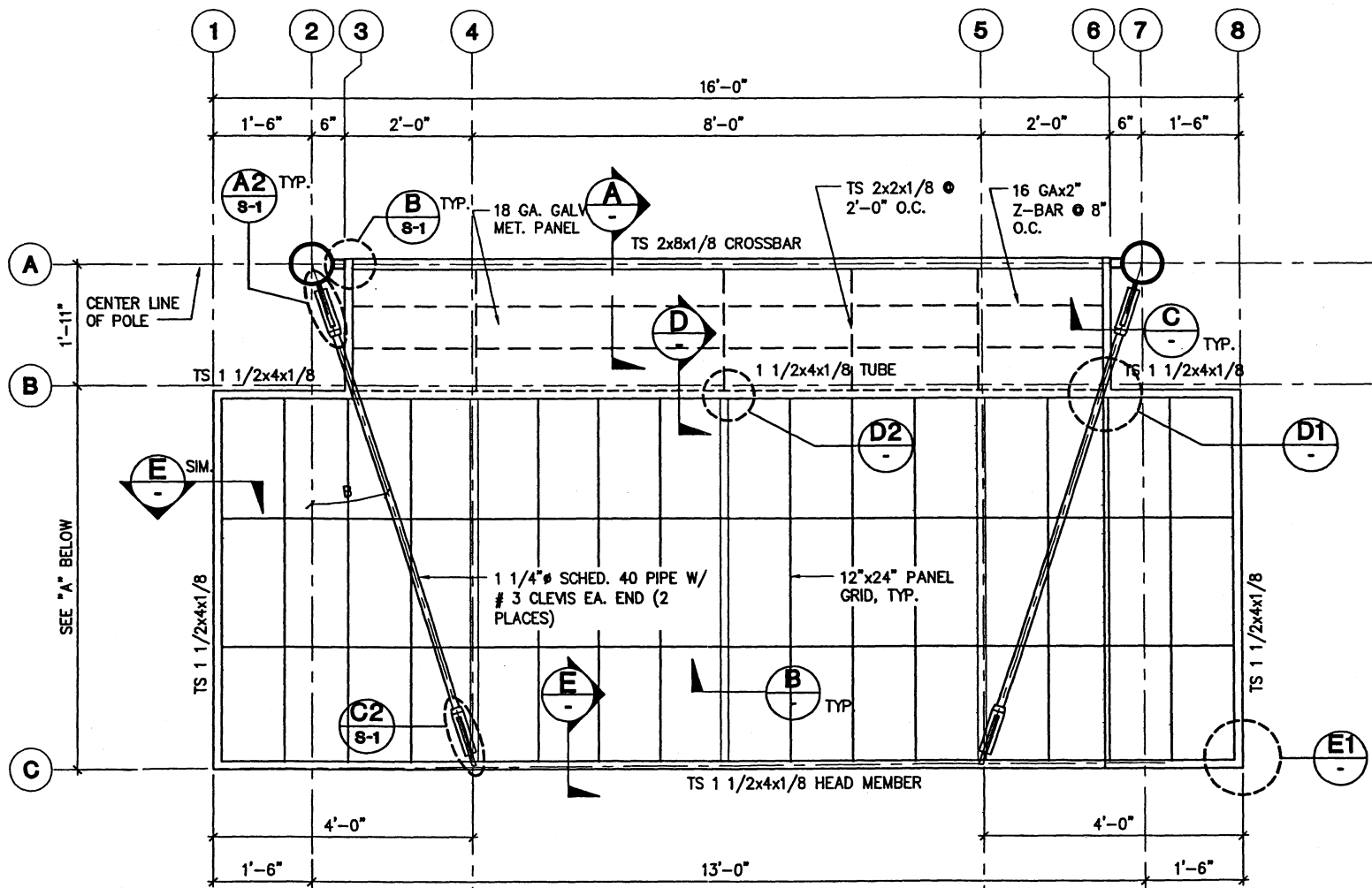
DETAIL E1
SCALE: 6\"/>



DETAIL D2
SCALE: 6\"/>



DETAIL D1
SCALE: 6\"/>



CANOPY PLAN 1
SCALE: 3/4\"/>

STATION	A	B
TYPE 6.1 OR TYPE 6.2	4'-0"	23'
TYPE 8.1 OR TYPE 8.2	6'-0"	18'
TYPE 10.1 OR TYPE 10.2	8'-0"	14'

**PRELIMINARY
NOT FOR
CONSTRUCTION**

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03

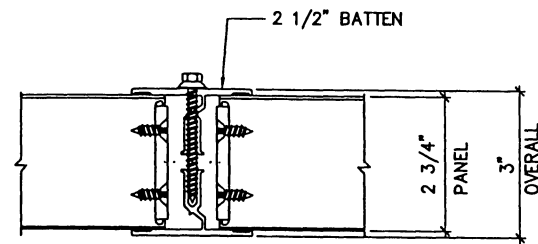


LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

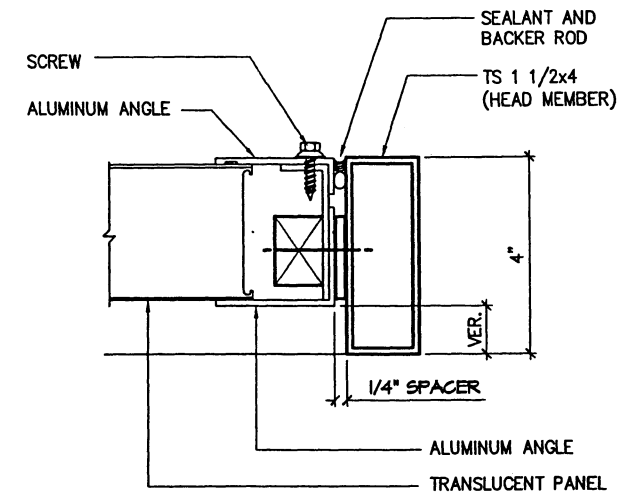
METRO RAPID EXPANSION
STATION STOPS
CANOPY FRAMING DETAILS -
6 FT., 8 FT., 10 FT., WIDE CANOPIES

FILE/JOB NUMBER PLOT FILES/A-6
SCALE AS SHOWN
DWG. NO. A-6
SHEET 13 OF 22

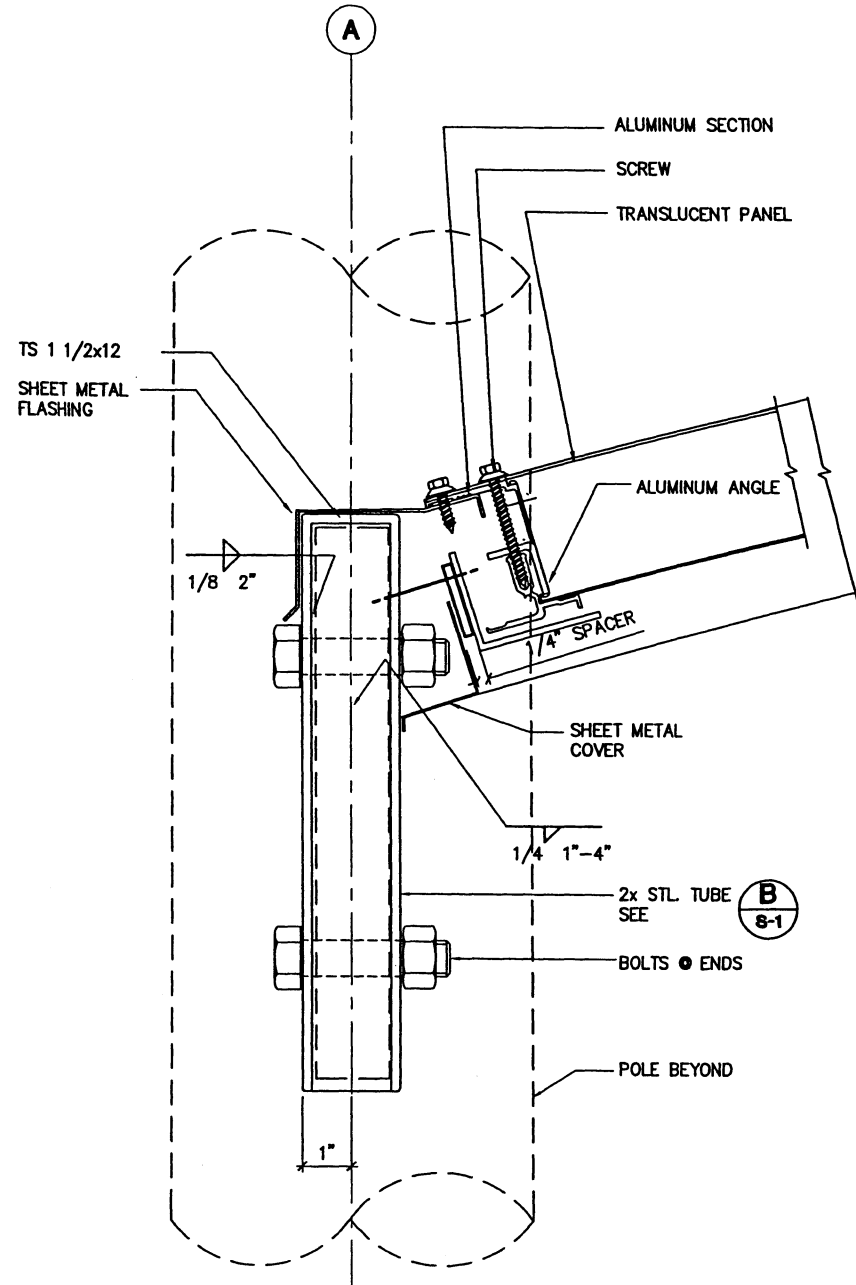
Y:\FILES\Rapid Transit\FINAL DESIGN\PILOT FILES 21A-6.dwg. 03/10/2004 09:13:14 AM



DETAIL B
SCALE: 6"=1'-0"

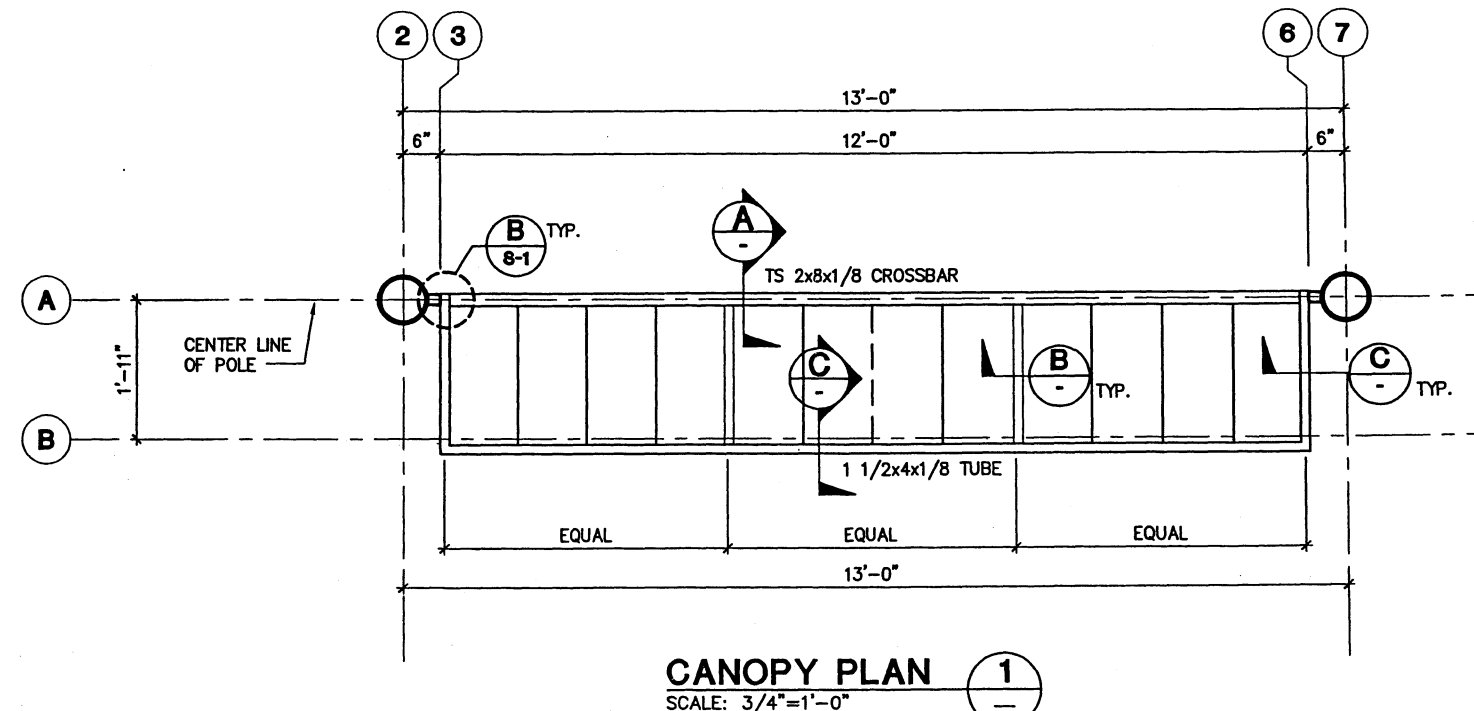


DETAIL C
SCALE: 6"=1'-0"



DETAIL A
SCALE: 6"=1'-0"

PRELIMINARY
NOT FOR
CONSTRUCTION



CANOPY PLAN 1
SCALE: 3/4"=1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03



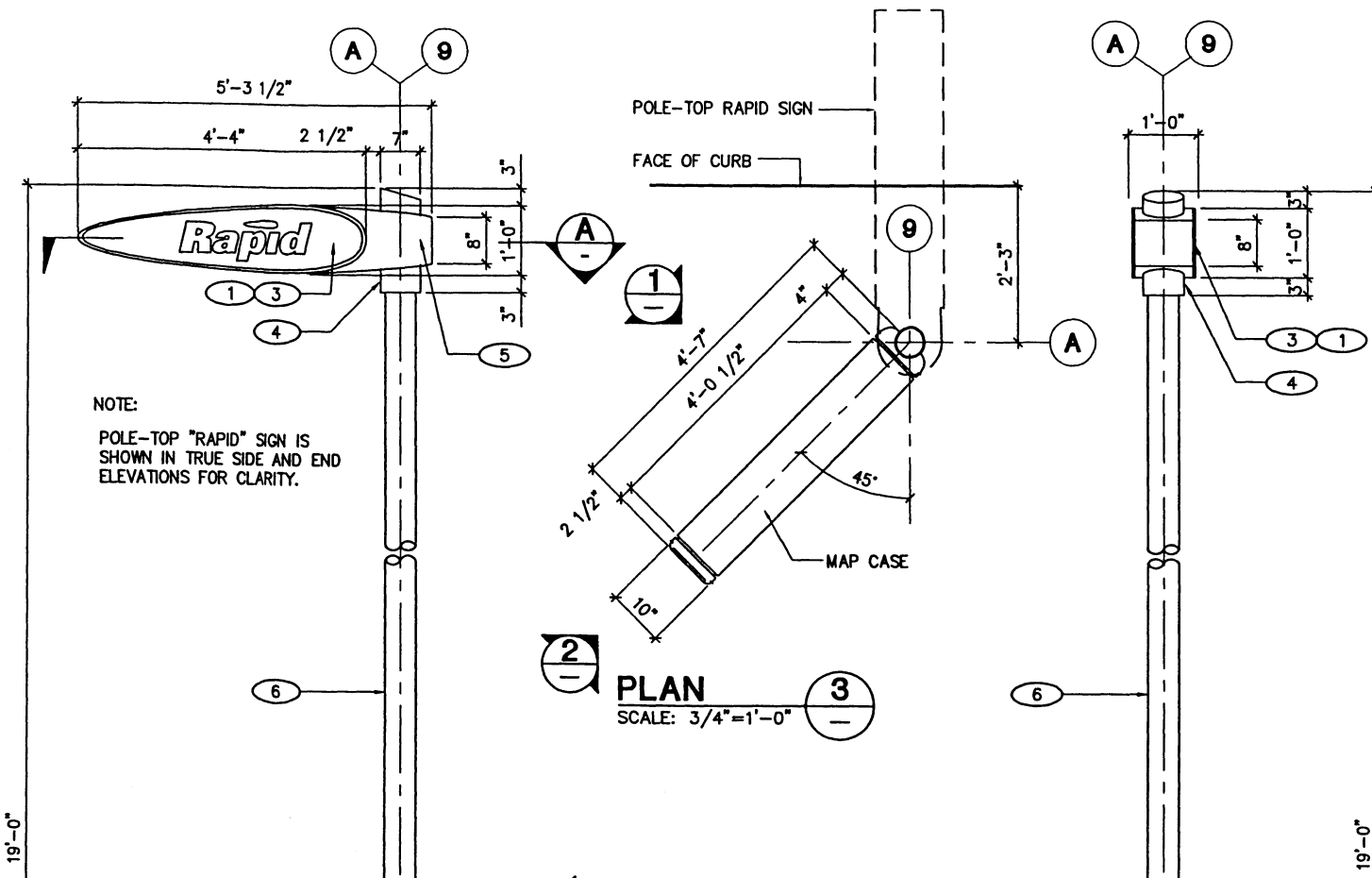
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

RECOMMENDED DATE APPROVED DATE

METRO RAPID EXPANSION
STATION STOPS

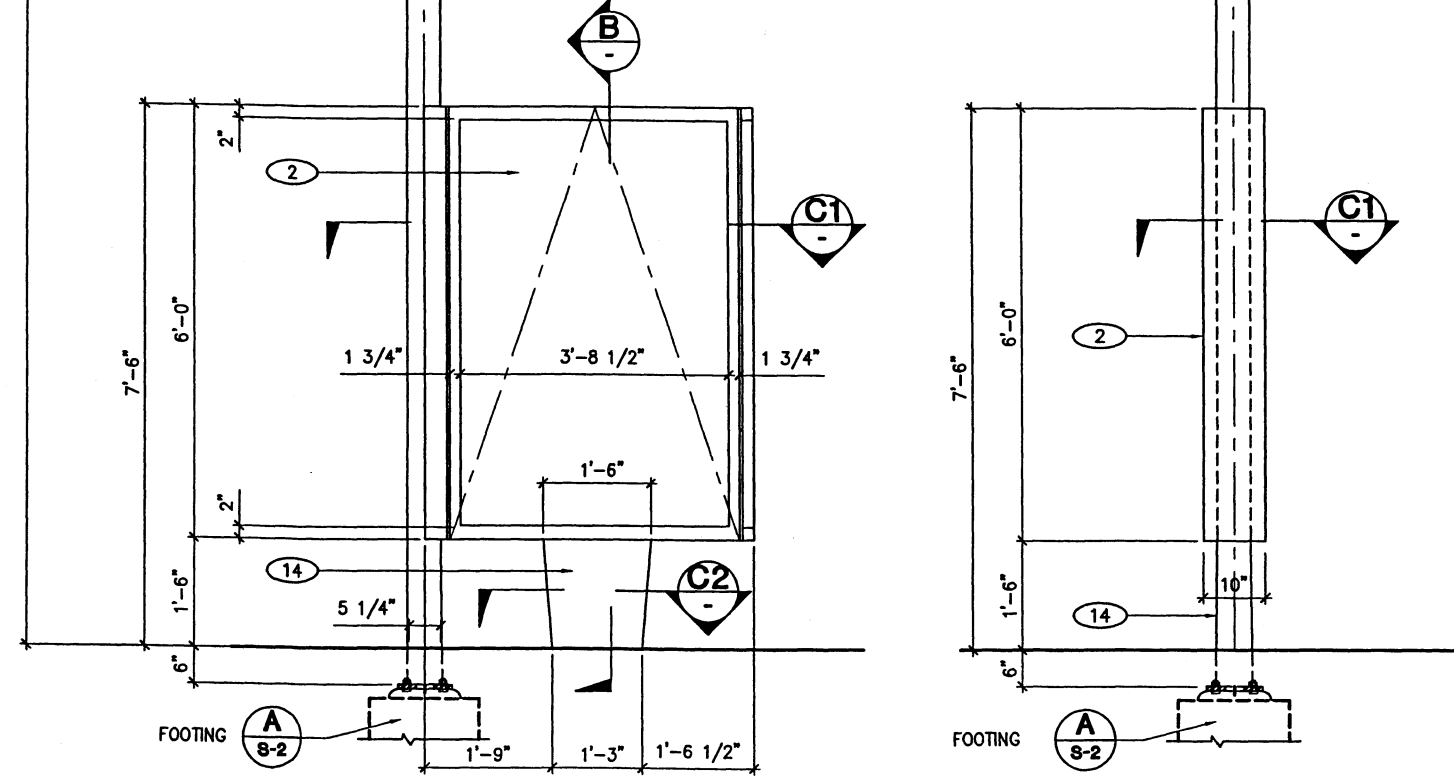
CANOPY FRAMING DETAILS
FOR 2 FOOT WIDE CANOPY

FILE/CAD NUMBER PLOT FILES/A-6A
SCALE AS SHOWN
DWG. NO. A-6A
SHEET 14 OF 22



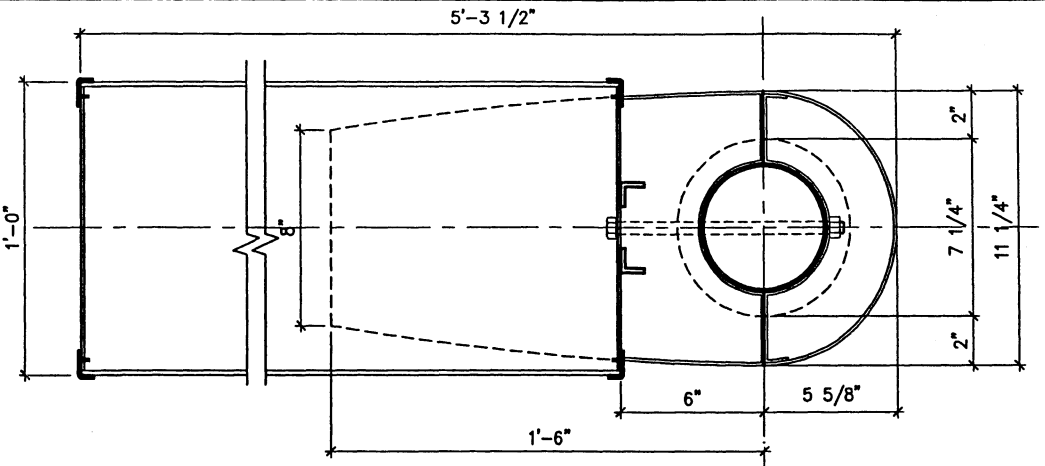
NOTE:
POLE-TOP "RAPID" SIGN IS SHOWN IN TRUE SIDE AND END ELEVATIONS FOR CLARITY.

PLAN
SCALE: 3/4"=1'-0"

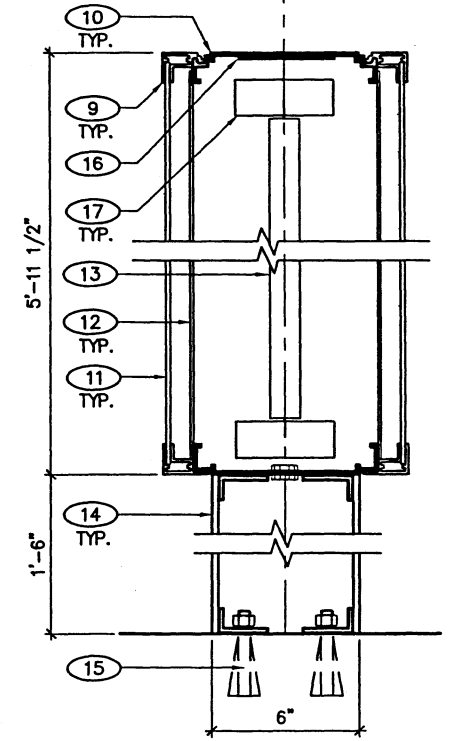


SIDE ELEVATION 1
SCALE: 3/4"=1'-0"

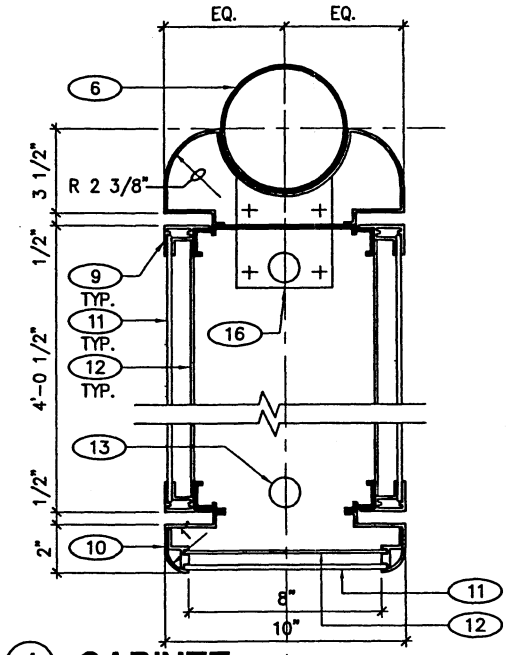
END ELEVATION 2
SCALE: 3/4"=1'-0"



PLAN DETAIL A
SCALE: 3"=1'-0"



SECTION DETAIL B
SCALE: 3"=1'-0"



1 CABINET
2 BASE
PLAN DETAIL C
SCALE: 3"=1'-0"

KEYNOTES:

- 1 TWO SIDED LOGO SIGN TO HAVE A WHITE ACRYLIC FACE AND APPLIED VINYL FOR THE BACKGROUND. VINYL COLOR TO BE 3M 3630-73 DARK RED. LETTERS TO REMAIN WHITE. ACRYLIC FACE TO BE RETAINED WITH TRIM CAP AND PAINTED TO MATCH THE VINYL COLOR.
- 2 ALUMINUM LOGO CABINET INTERNALLY ILLUMINATED WITH VERTICAL FLOURESCENT LAMPS.
- 3 TRIM CAP SECURE TO THE CABINET WITH SCREWS, PAINT SCREWS SAME COLOR AS ADJACENT SURFACE.
- 4 8"Ø ALUMINUM TUBE SLEEVE WITH TOP CAP: PAINTED, TO FIT INTO THE STEEL POLE. ASSEMBLY TO BE SECURED WITH VISIBLE MECHANICAL FASTENERS AS REQUIRED. COLOR TO MATCH BENJAMIN MOORE 1609.
- 5 FABRICATED ALUMINUM BRACKET: BRUSHED FINISH, WELDED TO THE ALUMINUM TUBE SLEEVE.
- 6 STEEL POLE: SCHEDULE 40, 5"Ø PIPE, PAINTED TO MATCH BENJAMIN MOORE 1609.
- 7 ALUMINUM ANGLES USED AS INTERNAL STRUCTURAL FRAMING.
- 8 ALUMINUM SKIN, PAINTED TO MATCH BENJAMIN MOORE 1609.
- 9 ALUMINUM EXTRUSION FRAME CABINET PANEL DOOR, WITH HOLDERS TOP HINGED AND SECURED WITH SCREWS AT THE BOTTOM, PAINTED TO MATCH BENJAMIN MOORE 1609.
- 10 ALUMINUM EXTRUSION CABINET HOUSING, INTERNALLY ILLUMINATED WITH FLOURESCENT LAMPS, PAINTED TO MATCH BENJAMIN MOORE 1609.
- 11 3/16" THK. TEMPERED GLASS.
- 12 WHITE ACRYLIC DIFFUSER.
- 13 FLOURESCENT LAMPS (VERTICAL).
- 14 ALUMINUM CABINET BASE WITH ACCESS PANEL ON ONE SIDE. SECURE ACCESS PANEL WITH FLAT HEAD SCREWS SAME COLOR AS ADJACENT SIDE, COLOR TO MATCH BENJAMIN MOORE 1609.
- 15 5/8"Øx4" LONG HILTI-KWK STAINLESS STEEL BOLTS.
- 16 4"x1/8" METAL BRACKET (TOP AND BOTTOM) WELDED TO POLE.
- 17 RACEWAY

PRELIMINARY
NOT FOR
CONSTRUCTION

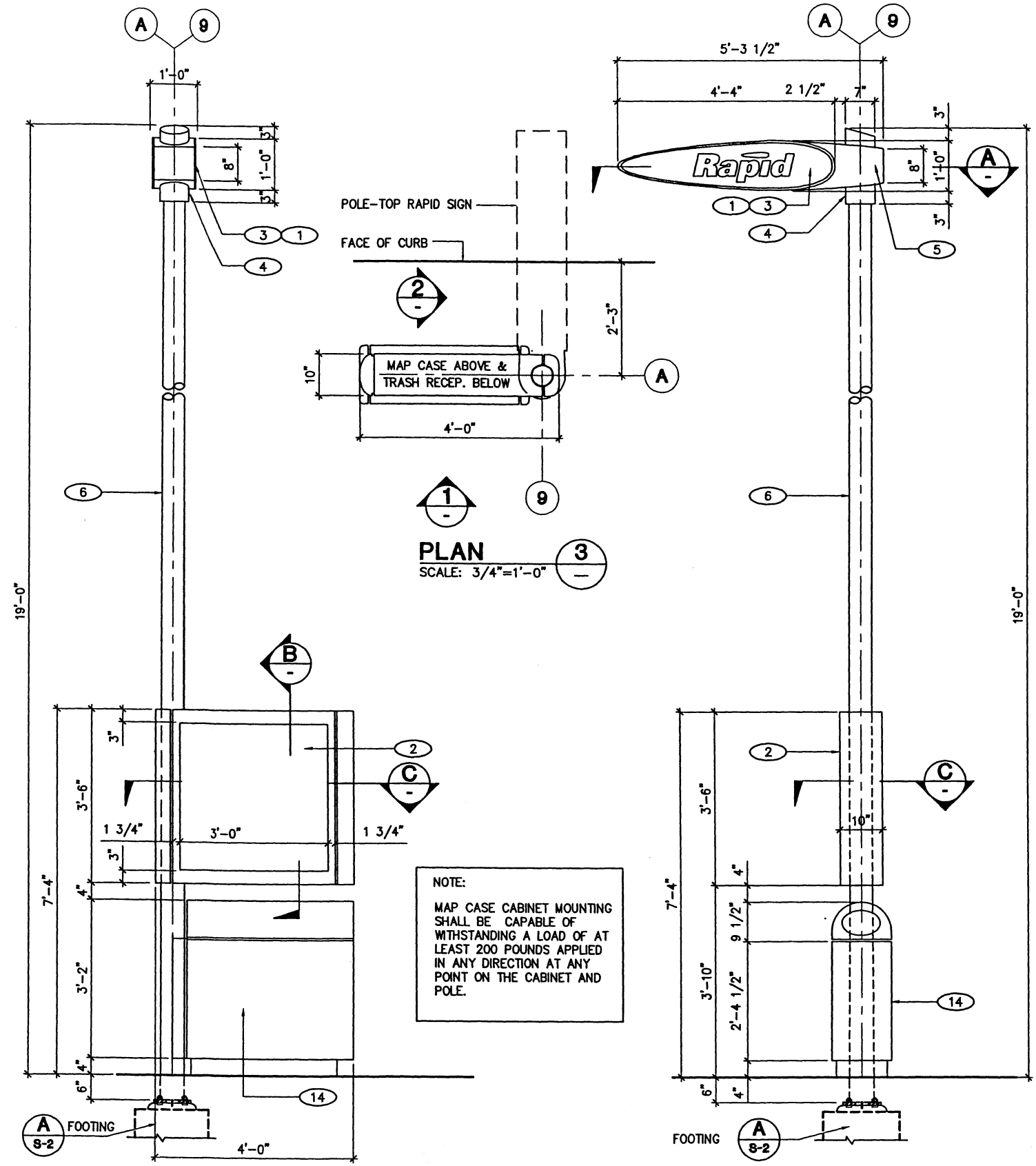
REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03

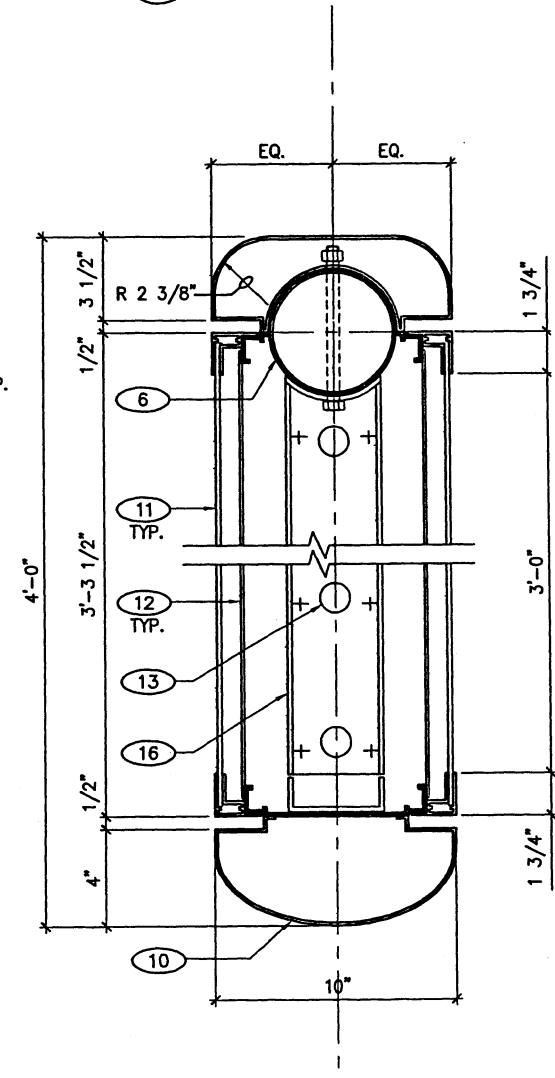
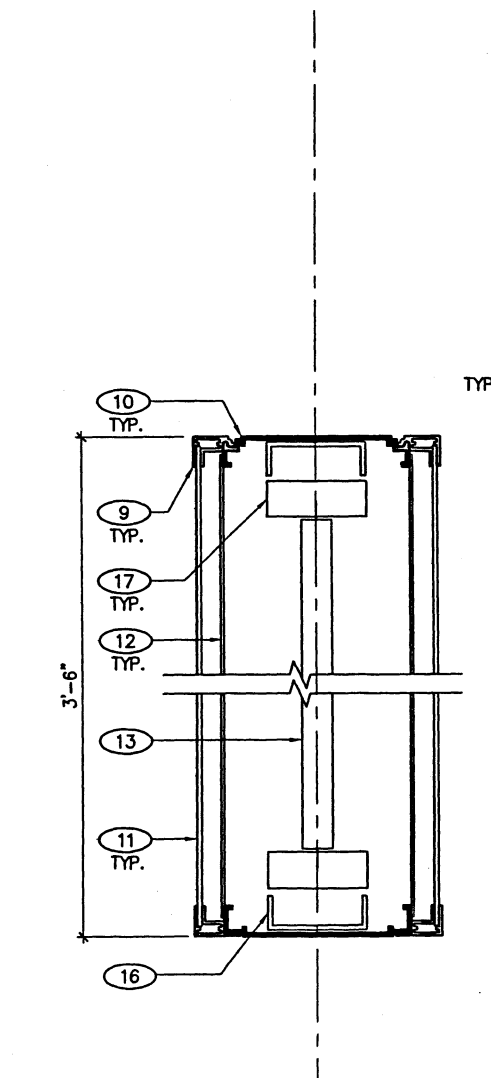
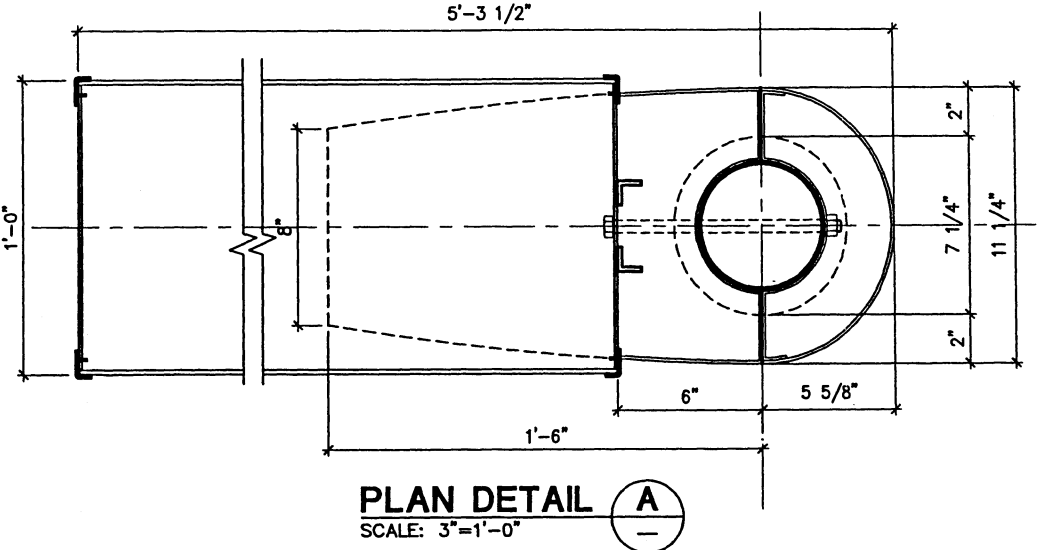


LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION STATION STOPS	FILE/JOB NUMBER PLOT FILES/A-7A
FLAGPOLE ASSEMBLY AND AD KIOSK	SCALE AS SHOWN
	DWG. NO. A-7A
	SHEET 15 OF 22



NOTE:
 MAP CASE CABINET MOUNTING SHALL BE CAPABLE OF WITHSTANDING A LOAD OF AT LEAST 200 POUNDS APPLIED IN ANY DIRECTION AT ANY POINT ON THE CABINET AND POLE.



- KEYNOTES:**
- 1 INTERNALLY ILLUMINATED TWO SIDED LOGO SIGN TO HAVE A WHITE ACRYLIC FACE AND APPLIED VINYL FOR THE BACKGROUND. VINYL COLOR TO BE 3M 3630-73 DARK RED. LETTERS TO REMAIN WHITE. ACRYLIC FACE TO BE RETAINED WITH TRIM CAP AND PAINTED TO MATCH THE VINYL COLOR.
 - 2 ALUMINUM LOGO CABINET.
 - 3 TRIM CAP SECURE TO THE CABINET WITH SCREWS, PAINT SCREWS SAME COLOR AS ADJACENT SURFACE.
 - 4 8"Ø ALUMINUM TUBE SLEEVE WITH TOP CAP: PAINTED, TO FIT INTO THE STEEL POLE. ASSEMBLY TO BE SECURED WITH VISIBLE MECHANICAL FASTENERS AS REQUIRED. COLOR TO MATCH BENJAMIN MOORE 1609.
 - 5 FABRICATED ALUMINUM BRACKET: BRUSHED FINISH, WELDED TO THE ALUMINUM TUBE SLEEVE.
 - 6 STEEL POLE: SCHEDULE 40, 5"Ø PIPE, PAINTED TO MATCH BENJAMIN MOORE 1609.
 - 7 NOT USED
 - 8 ALUMINUM SKIN, PAINTED TO MATCH BENJAMIN MOORE 1609.
 - 9 ALUMINUM EXTRUSION FRAME CABINET PANEL DOOR, WITH HOLDERS TOP HINGED AND SECURED WITH SCREWS AT THE BOTTOM, PAINTED TO MATCH BENJAMIN MOORE 1609.
 - 10 ALUMINUM EXTRUSION CABINET HOUSING, INTERNALLY ILLUMINATED WITH FLUORESCENT LAMPS, PAINTED TO MATCH BENJAMIN MOORE 1609.
 - 11 3/16" THK. TEMPERED GLASS
 - 12 WHITE ACRYLIC DIFFUSER
 - 13 FLUORESCENT LAMPS (VERTICAL).
 - 14 STAINLESS STEEL TRASH RECEPTACLE WITH HINGED OPERABLE SERVICE DOOR, COLOR TO MATCH BENJAMIN MOORE 1609. SEE DETAIL
 - 15 NOT USED
 - 16 4" STEEL CHANNEL BRACKET (TOP AND BOTTOM) AS REQUIRED WELDED TO STEEL POLE.
 - 17 RACEWAY

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

REV.	DATE	BY	APP.	DESCRIPTION

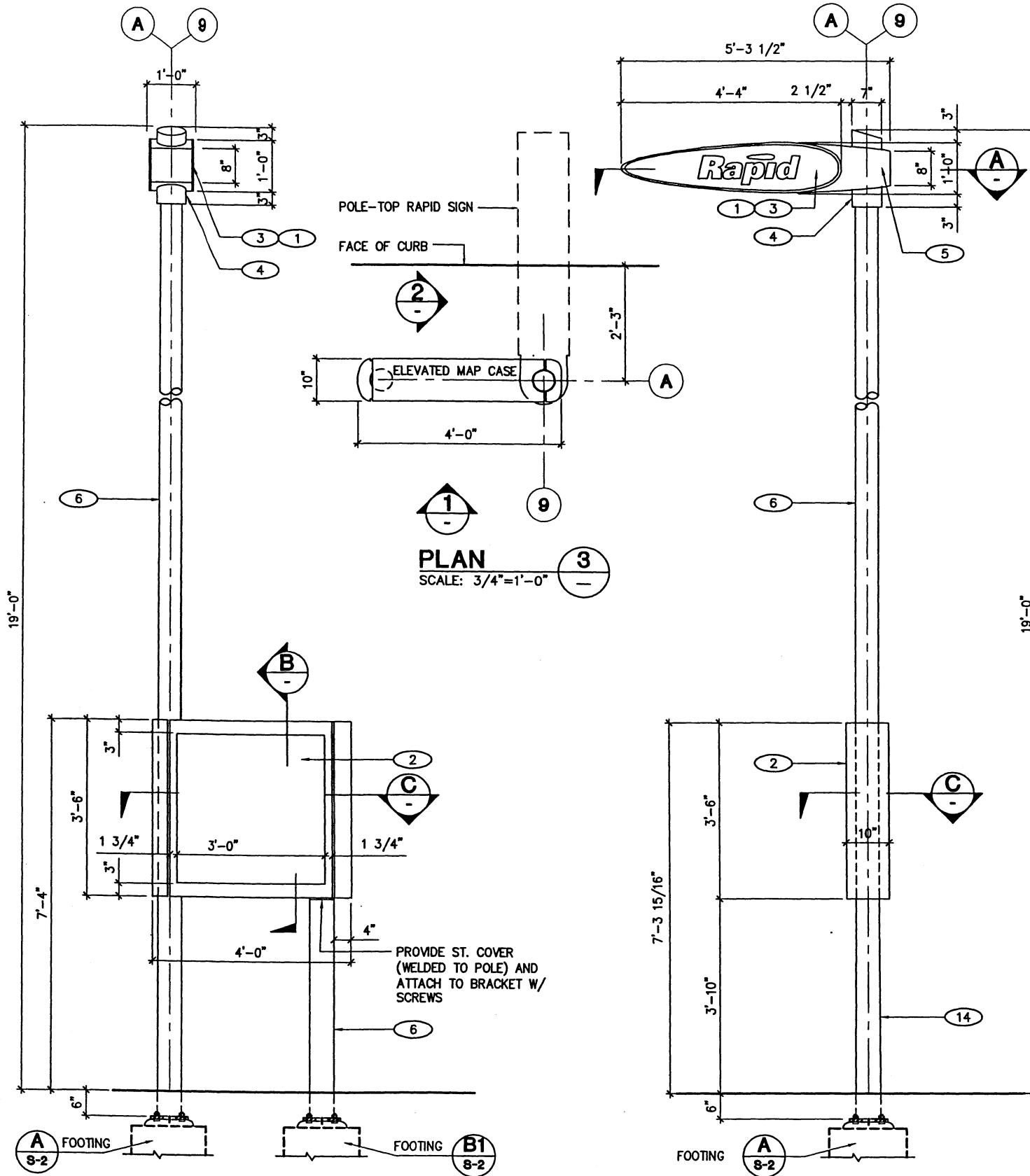
DESIGNED CF	09/29/03	DATE
DRAWN BY MM	11/19/03	DATE
CHECKED TB	11/26/03	DATE



LOS ANGELES COUNTY
 METROPOLITAN TRANSPORTATION AUTHORITY
 FACILITIES - OPERATIONS, ENGINEERING DIVISION

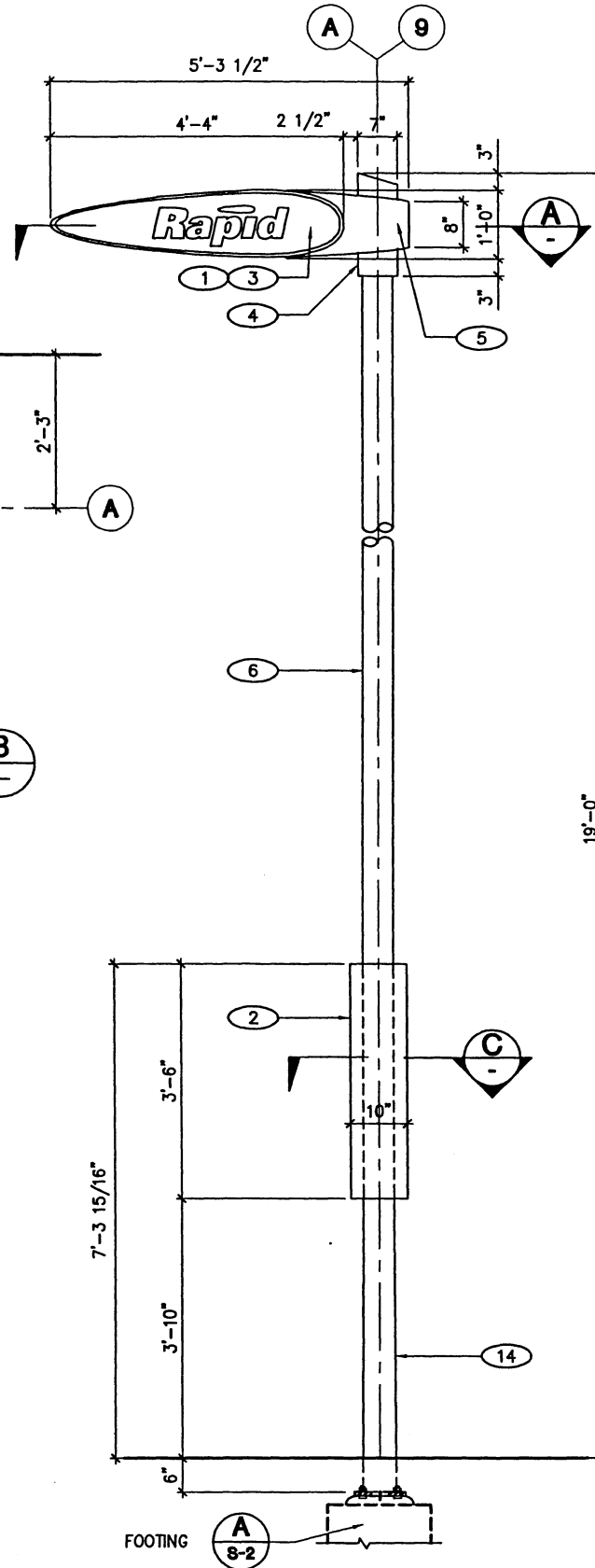
METRO RAPID EXPANSION STATION STOPS	FILE/JOB NUMBER PLOT FILES/A-7B
FLAGPOLE ASSEMBLY AND MAP CASE AND RECEPTACLE	SCALE AS SHOWN
	DWG. NO. A-7B
	SHEET 16 OF 22

RECOMMENDED DATE APPROVED DATE

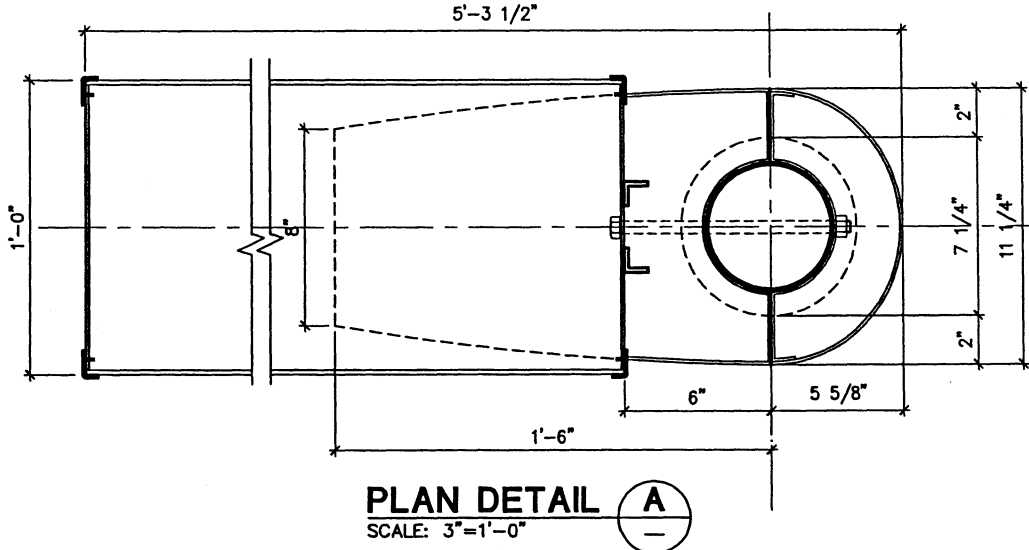


PLAN
SCALE: 3/4"=1'-0"

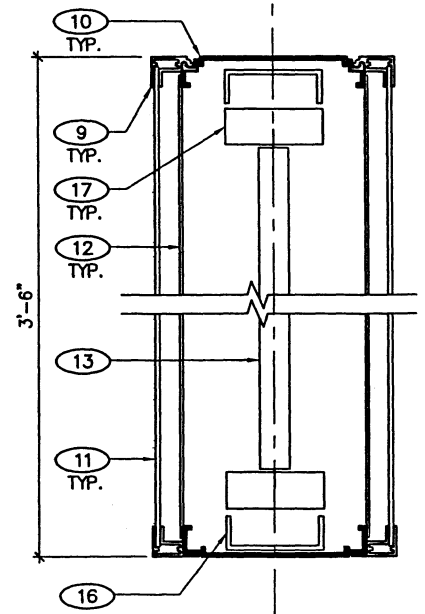
SIDE ELEVATION
SCALE: 3/4"=1'-0"



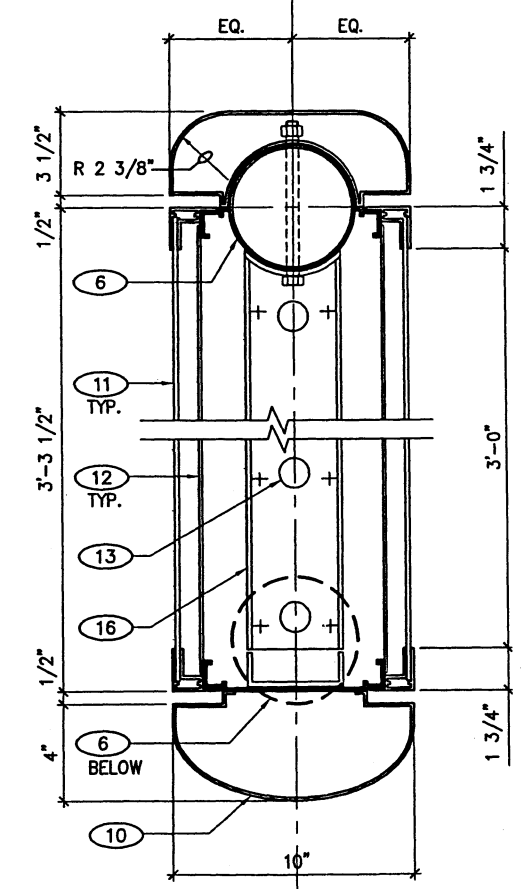
END ELEVATION
SCALE: 3/4"=1'-0"



PLAN DETAIL A
SCALE: 3"=1'-0"



SECTION DETAIL B
SCALE: 3"=1'-0"



PLAN DETAIL C
SCALE: 3"=1'-0"

KEYNOTES:

- 1 INTERNALLY ILLUMINATED TWO SIDED LOGO SIGN TO HAVE A WHITE ACRYLIC FACE AND APPLIED VINYL FOR THE BACKGROUND. VINYL COLOR TO BE 3M 3630-73 DARK RED. LETTERS TO REMAIN WHITE. ACRYLIC FACE TO BE RETAINED WITH TRIM CAP AND PAINTED TO MATCH THE VINYL COLOR.
- 2 ALUMINUM LOGO CABINET.
- 3 TRIM CAP SECURE TO THE CABINET WITH SCREWS. PAINT SCREWS SAME COLOR AS ADJACENT SURFACE.
- 4 8"Ø ALUMINUM TUBE SLEEVE WITH TOP CAP: PAINTED, TO FIT INTO THE STEEL POLE. ASSEMBLY TO BE SECURED WITH VISIBLE MECHANICAL FASTENERS AS REQUIRED. COLOR TO MATCH BENJAMIN MOORE 1609.
- 5 FABRICATED ALUMINUM BRACKET: BRUSHED FINISH, WELDED TO THE ALUMINUM TUBE SLEEVE.
- 6 STEEL POLE: SCHEDULE 40, 5"Ø PIPE, PAINTED TO MATCH BENJAMIN MOORE 1609.
- 7 NOT USED
- 8 ALUMINUM SKIN, PAINTED TO MATCH BENJAMIN MOORE 1609.
- 9 ALUMINUM EXTRUSION FRAME CABINET PANEL DOOR, WITH HOLDERS TOP HINGED AND SECURED WITH SCREWS AT THE BOTTOM, PAINTED TO MATCH BENJAMIN MOORE 1609.
- 10 ALUMINUM EXTRUSION CABINET HOUSING, INTERNALLY ILLUMINATED WITH FLUORESCENT LAMPS, PAINTED TO MATCH BENJAMIN MOORE 1609.
- 11 3/16" THK. TEMPERED GLASS
- 12 WHITE ACRYLIC DIFFUSER
- 13 FLUORESCENT LAMPS (VERTICAL).
- 14 NOT USED
- 15 NOT USED
- 16 4" STEEL CHANNEL BRACKET (TOP AND BOTTOM) AS REQUIRED WELDED TO STEEL POLE.
- 17 RACEWAY

**PRELIMINARY
NOT FOR
CONSTRUCTION**

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	DATE 09/29/03
DRAWN BY MM	DATE 11/19/03
CHECKED TB	DATE 11/26/03



Metro

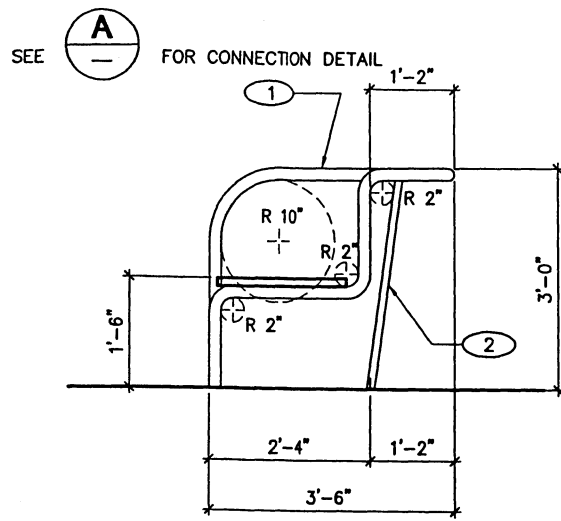
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION
STATION STOPS

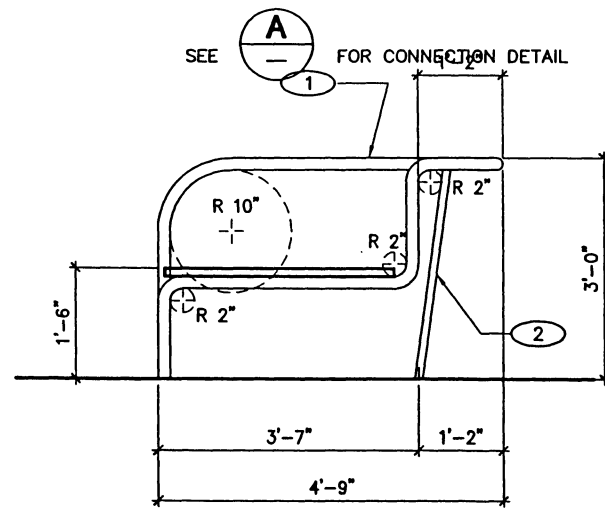
FLAGPOLE ASSEMBLY AND
MAP CASE

FILE/JOB NUMBER PLOT FILES/A-7C
SCALE AS SHOWN
DWG. NO. A-7C
SHEET 17 OF 22

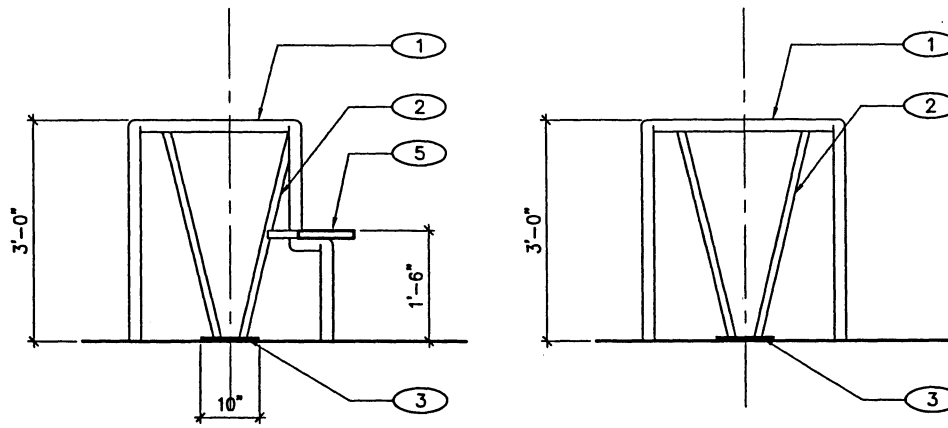
RECOMMENDED _____ DATE _____ APPROVED _____ DATE _____



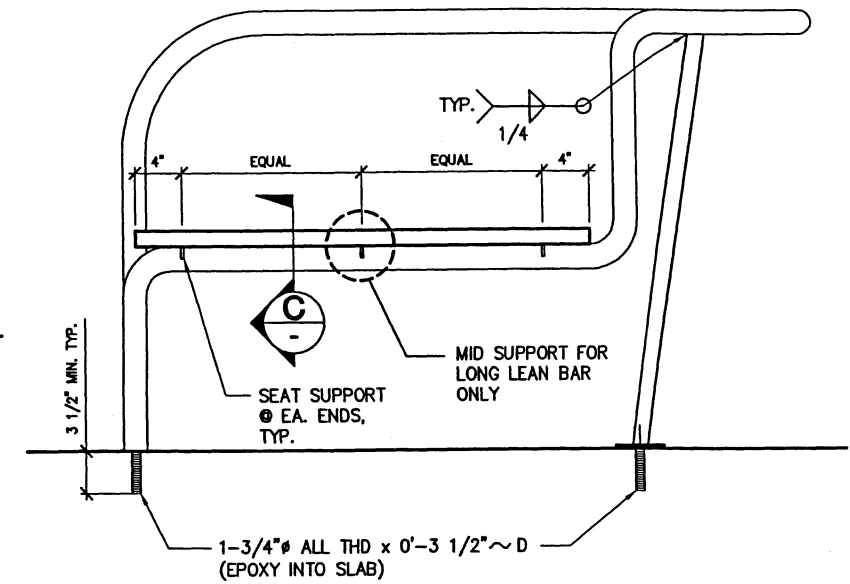
SIDE ELEVATION



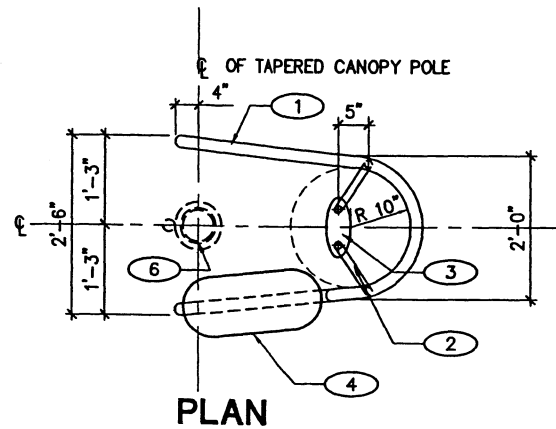
SIDE ELEVATION



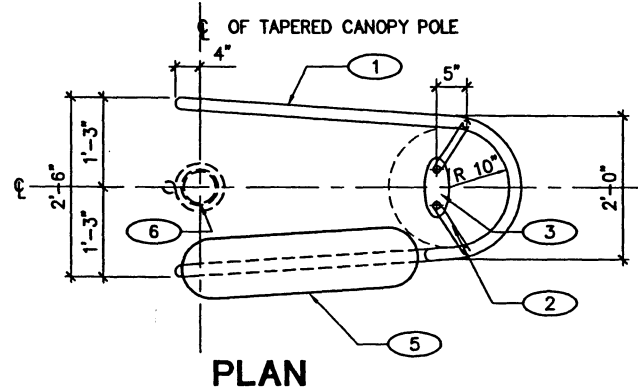
TYP. FRONT ELEVATION W/O SEAT



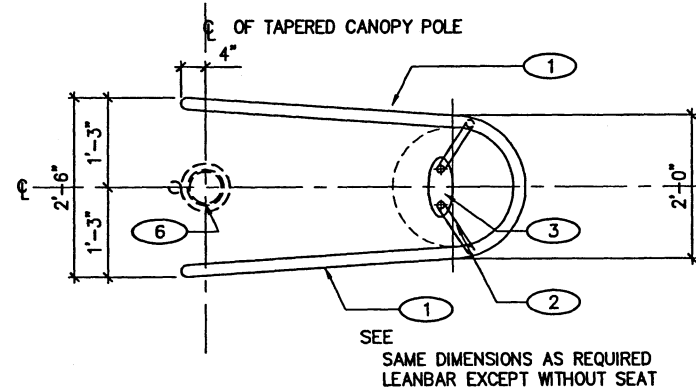
CONNECTIONS DETAIL A
SCALE: 1 1/2"=1'-0"



PLAN



PLAN



SEE SAME DIMENSIONS AS REQUIRED LEANBAR EXCEPT WITHOUT SEAT

SHORT LEANBAR FOR 6' CANOPY 1
SCALE: 3/4"=1'-0"

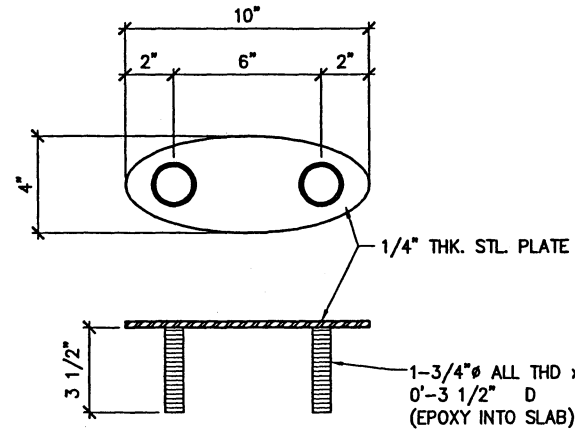
LONG LEANBAR FOR 8' & 10' CANOPY 2
SCALE: 3/4"=1'-0"

VARIABLE LEANBAR 3
SCALE: 3/4"=1'-0"

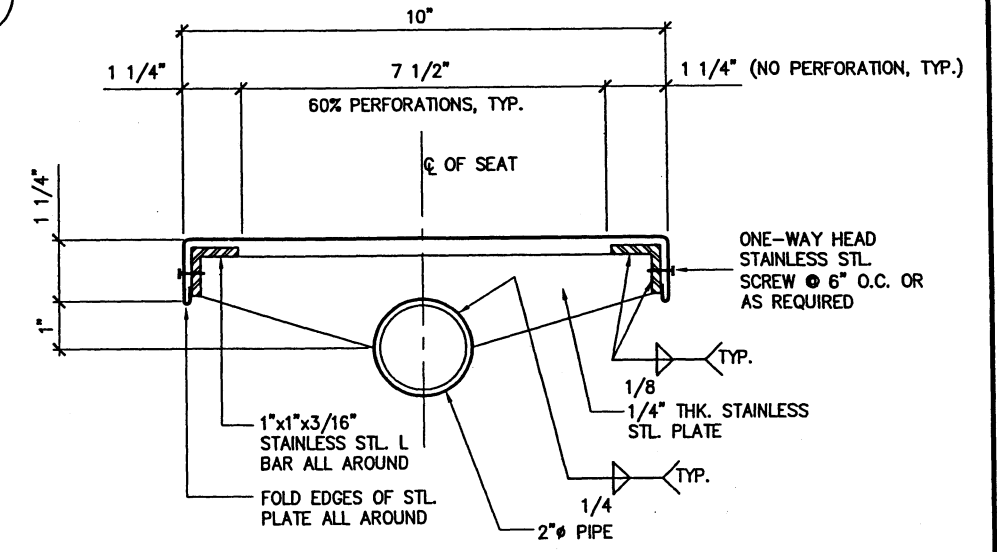
KEYNOTES:

- 1 STAINLESS STEEL PIPE: 2" Ø SCHEDULE 10; FINISH: BRUSHED
- 2 STAINLESS STEEL PIPE: 1 1/4" Ø SCHEDULE 40; FINISH: BRUSHED STAINLESS
- 3 STAINLESS STEEL PLATE: 1/4" x 4"; FINISH: BRUSHED, SEE **B**
- 4 10"x24"x1/8" STAINLESS STEEL SEAT WITH PERFORATED TOP POWDERCOATED RAPID GRAY; TOP OF SEAT: 18" HIGH, SEE **C**
- 5 10"x39"x1/8" STAINLESS STEEL SEAT WITH PERFORATED TOP POWDERCOATED RAPID GRAY; TOP OF SEAT: 18" HIGH, SEE **C**
- 6 CANOPY POLE

NOTE:
ALL PIPES ON KEYNOTES 1 TO 5 ARE ASTM A-312 WELDED STAINLESS STEEL. ALL PLATES AND ALL TREADS ARE TYPE 304 STAINLESS STEEL.



DETAIL B
SCALE: 1 1/2"=1'-0"



SEAT DETAIL C
SCALE: 1 1/2"=1'-0"

PRELIMINARY
NOT FOR CONSTRUCTION

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED	DATE
CF	09/29/03
DRAWN BY	DATE
MM	11/19/03
CHECKED	DATE
TB	11/26/03



LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

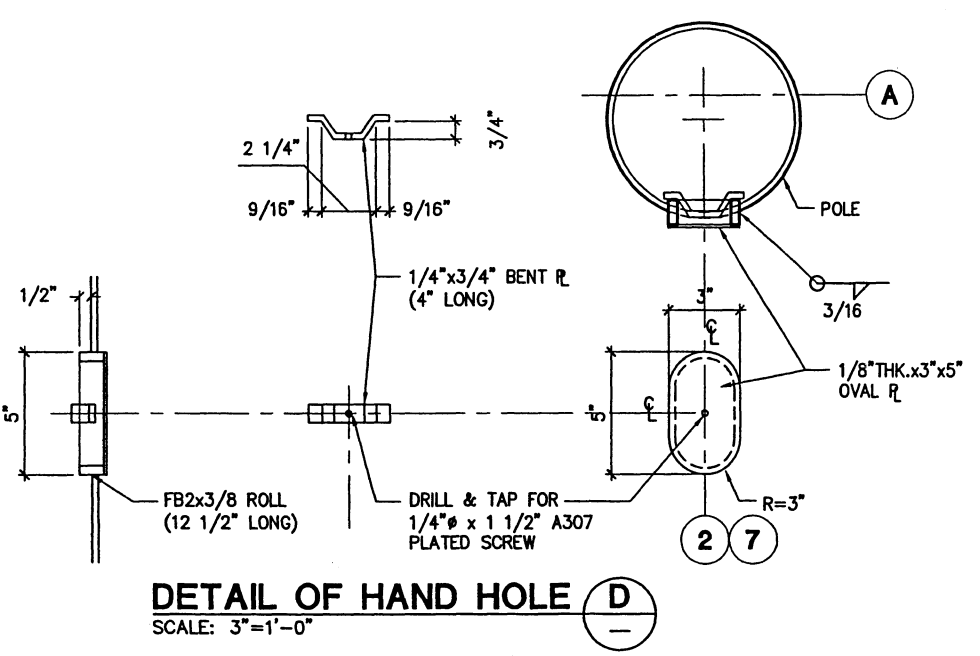
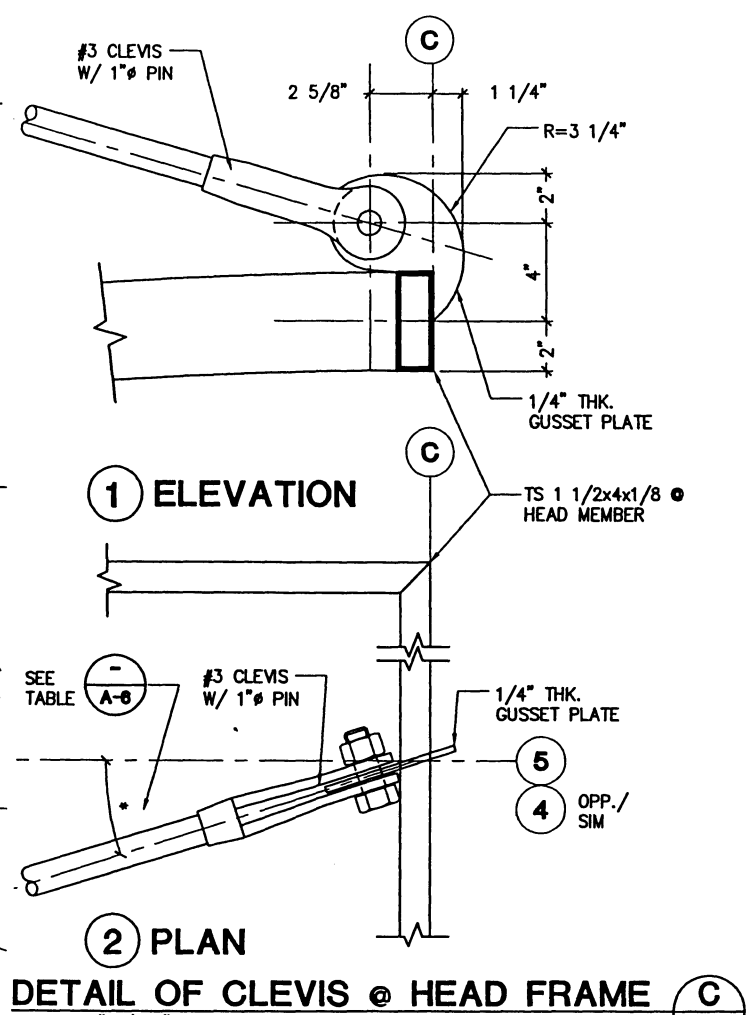
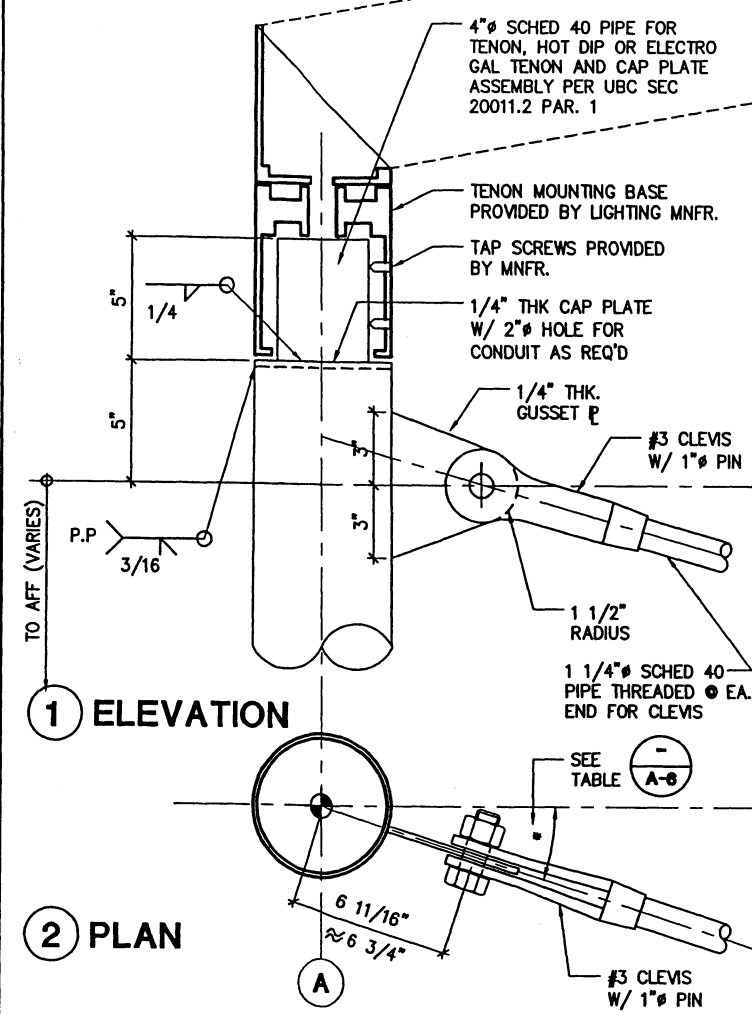
METRO RAPID EXPANSION
STATION STOPS
LEAN BAR ASSEMBLY
AND DETAILS

FILE/JOB NUMBER	PLOT FILES/A-8
SCALE	AS SHOWN
DWG. NO.	A-8
SHEET	18 OF 22

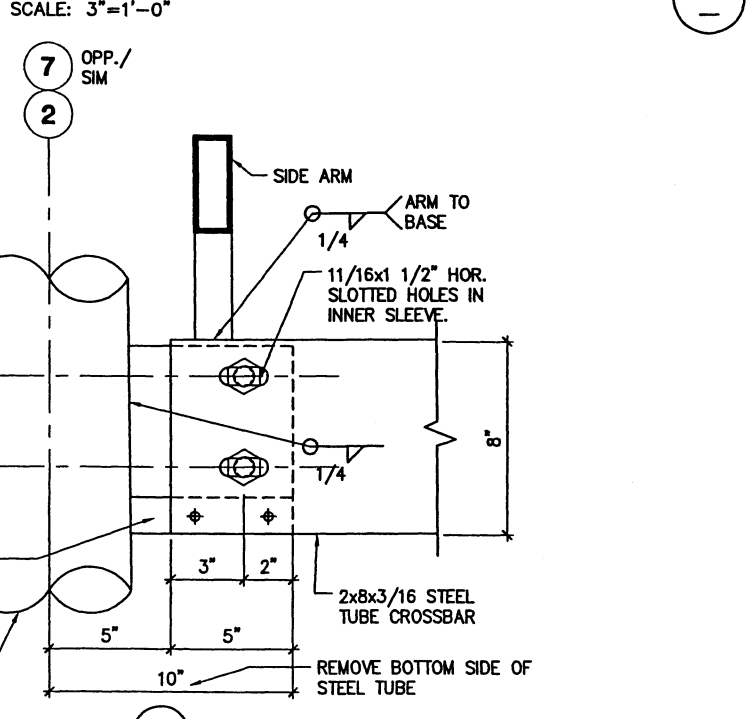
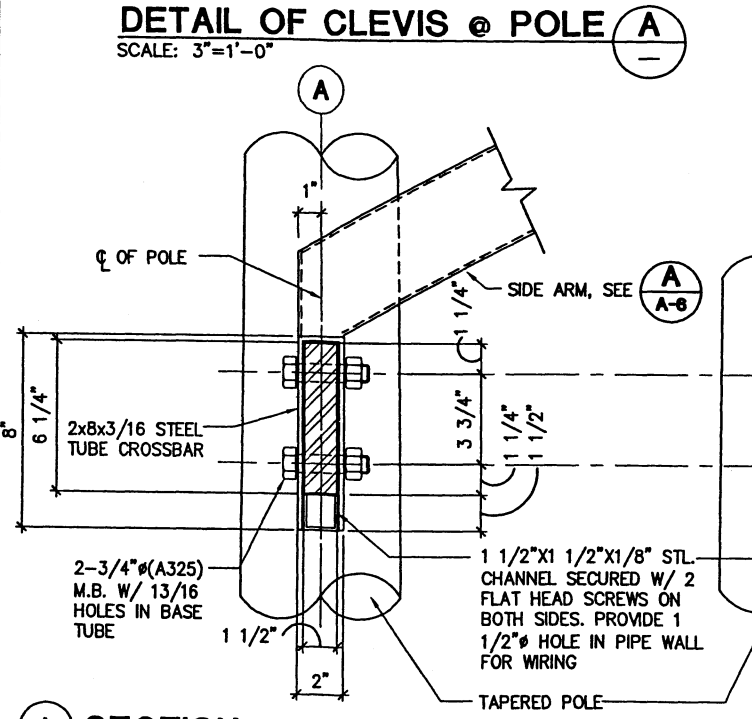
Y:\FILES\Railroad Trans\FINAL DESIGN\PILOT FILES 2\A-8.dwg, 03/10/2004 09:18:14 AM

**PRELIMINARY
NOT FOR
CONSTRUCTION**

STATION	DRAWING NO.
TYPE 6.1 OR TYPE 6.2	SEE A-5A
TYPE 8.1 OR TYPE 8.2	SEE A-5B
TYPE 10.1 OR TYPE 10.2	SEE A-5C

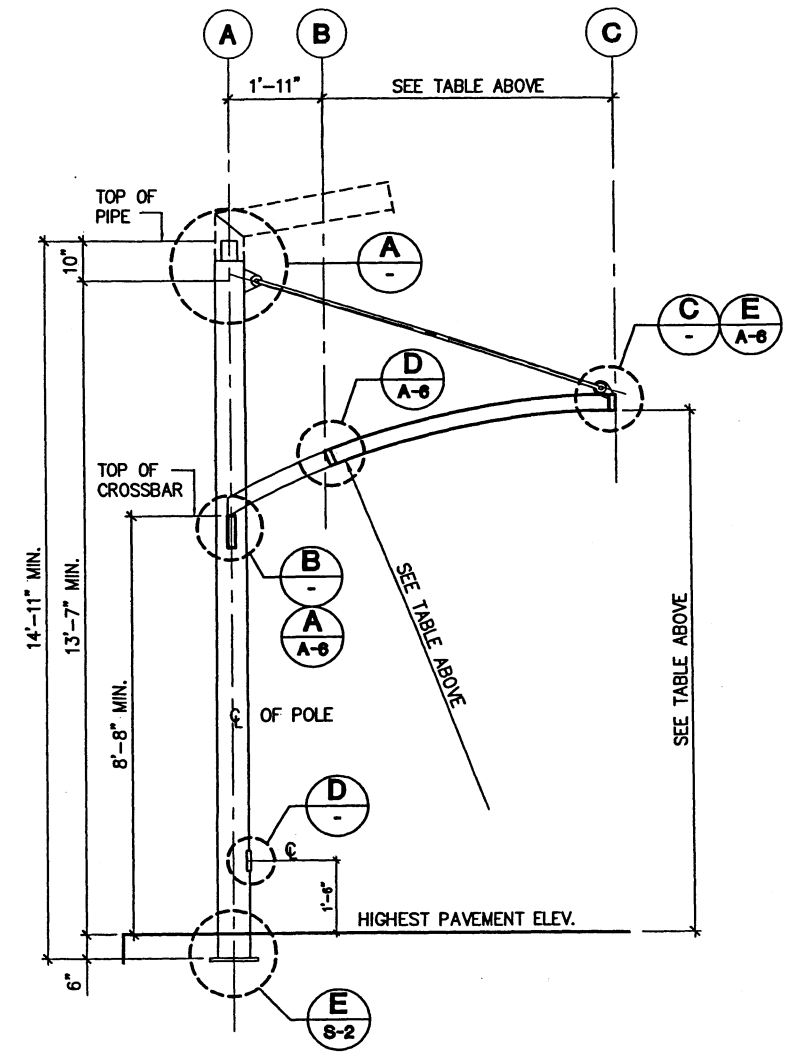


DETAIL OF HAND HOLE (D)
SCALE: 3"=1'-0"



1 SECTION
DETAIL OF CROSSBAR (B)
SCALE: 3"=1'-0"

2 ELEVATION



SECTION 1
SCALE: 3/4"=1'-0"

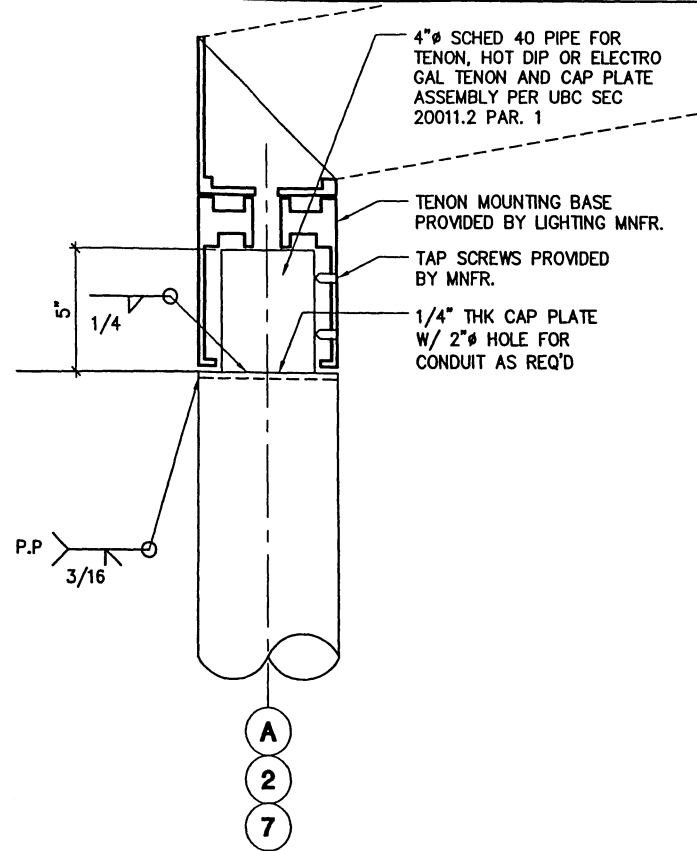
REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED	CF	DATE	09/29/03
DRAWN BY	MM	DATE	11/19/03
CHECKED	TB	DATE	11/26/03

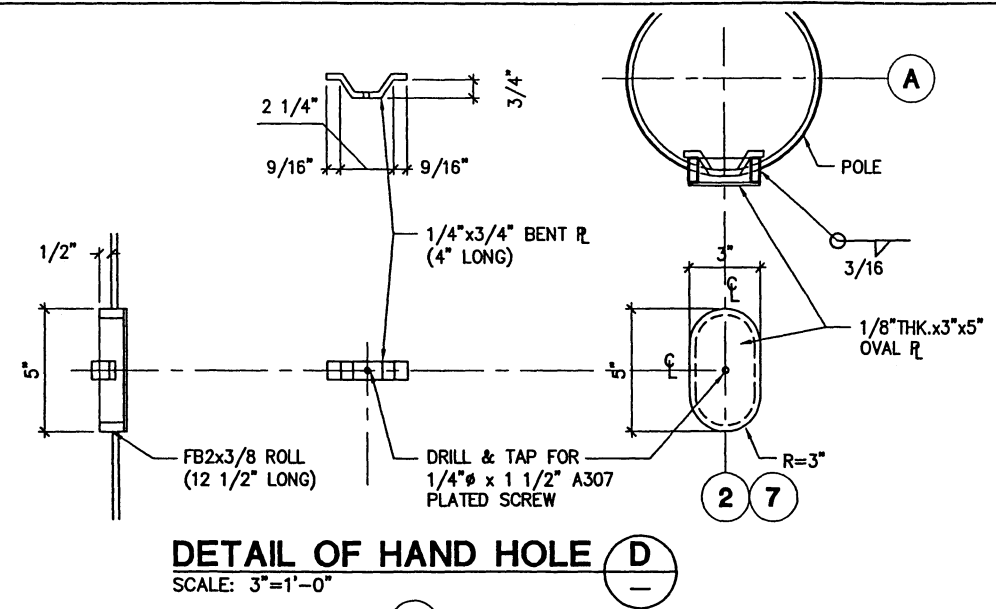


LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION STATION STOPS		FILE/JOB NUMBER PLOT FILES/S-1
CANOPY SUPPORT DETAILS - 6 FT., 8 FT., 10 FT. WIDE CANOPIES		SCALE AS SHOWN
		DWG. NO. S-1
		SHEET 19 OF 22

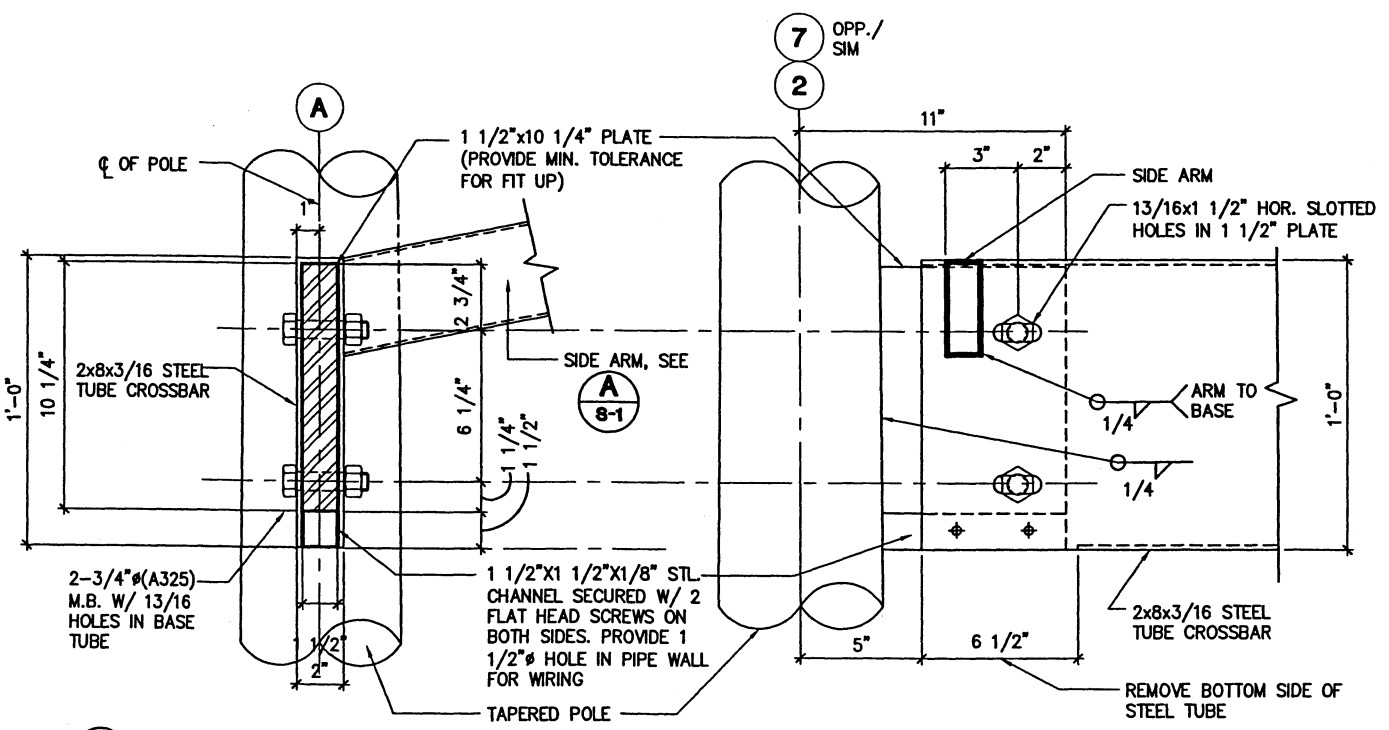


DETAIL @ POLE (A)
SCALE: 3"=1'-0"



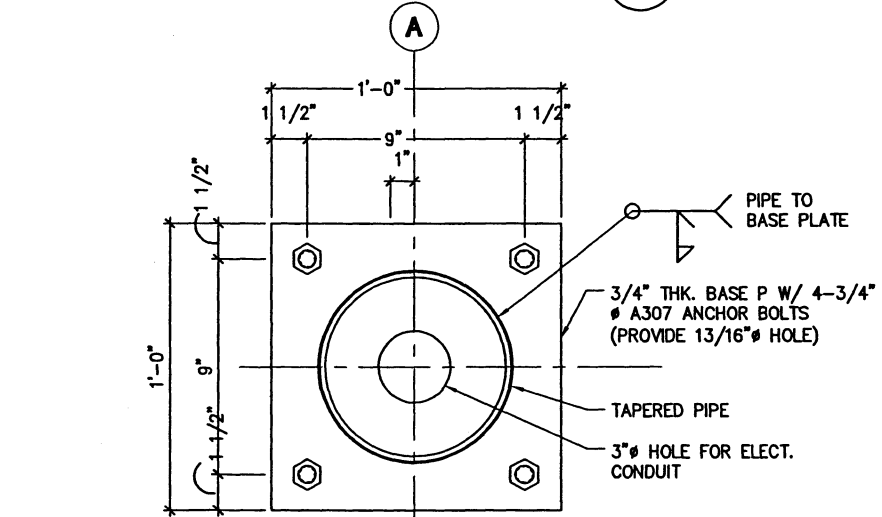
DETAIL OF HAND HOLE (D)
SCALE: 3"=1'-0"

**PRELIMINARY
NOT FOR
CONSTRUCTION**

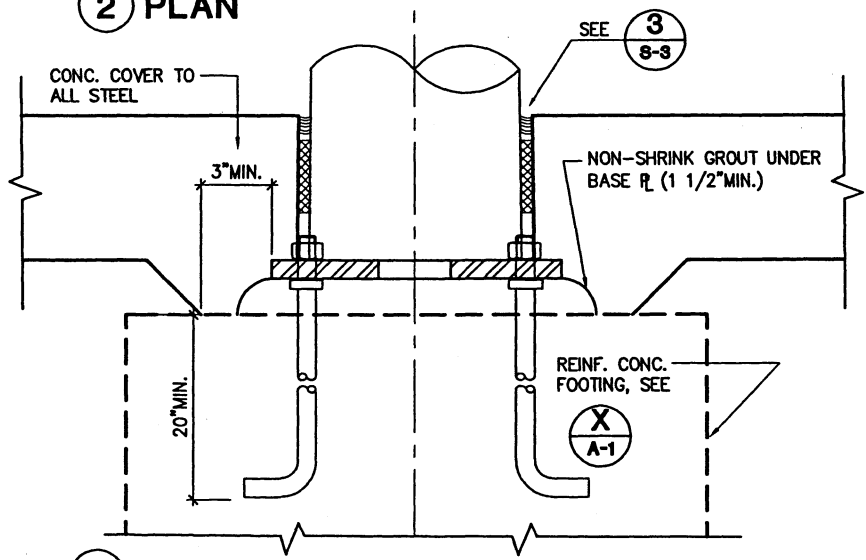


1 SECTION
DETAIL OF CROSSBAR (B)
SCALE: 3"=1'-0"

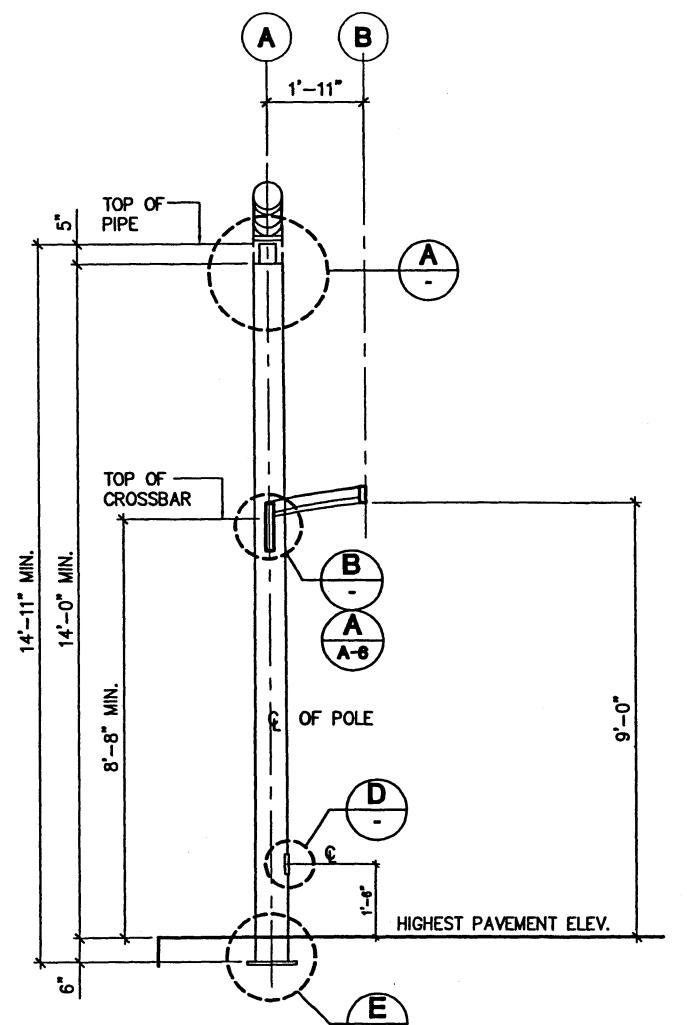
2 ELEVATION



2 PLAN



1 SECTION
DETAIL OF BASE PLATE ANCHORS (E)
SCALE: 3"=1'-0"



SECTION 1
SCALE: 3/4"=1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

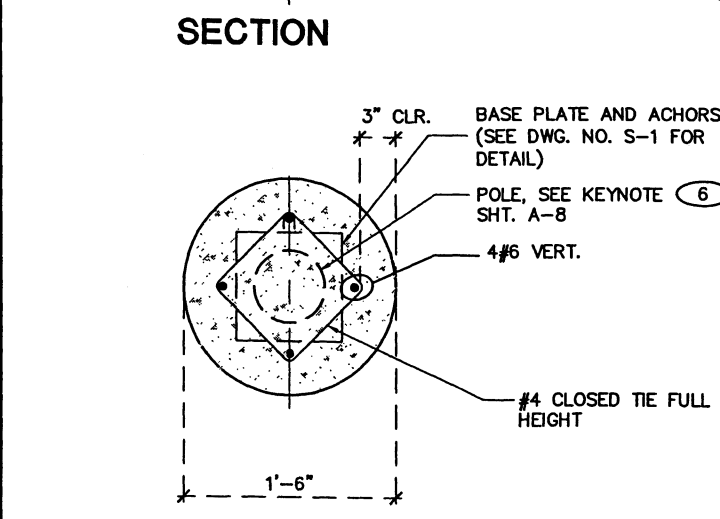
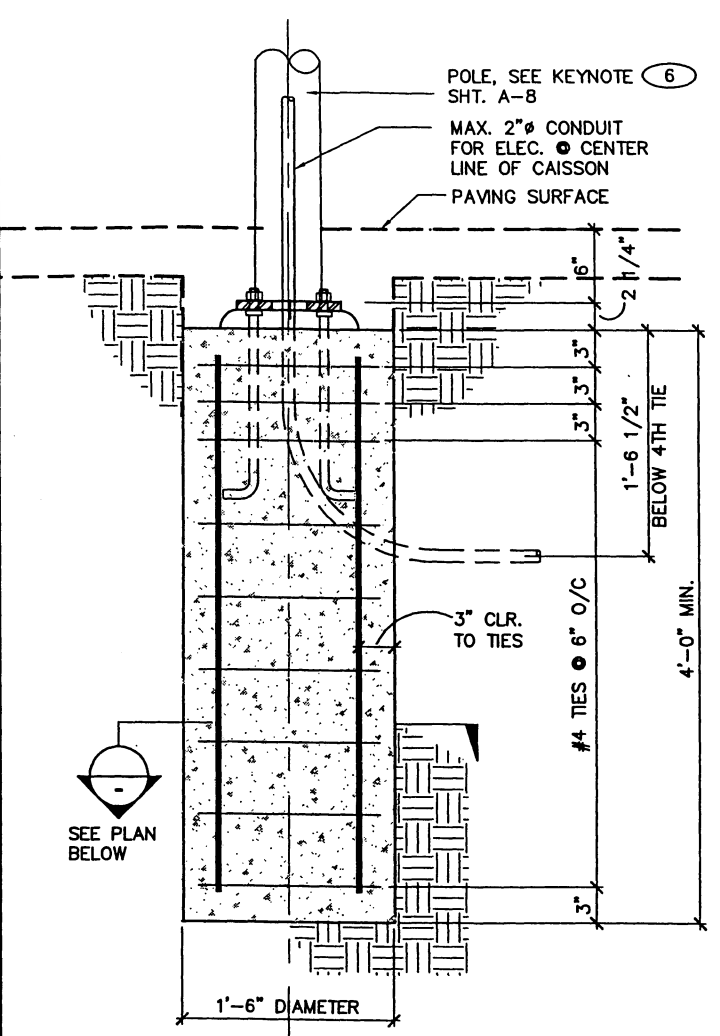
DESIGNED	DATE
CF	09/20/03
DRAWN BY	DATE
MM	11/19/03
CHECKED	DATE
TB	11/26/03



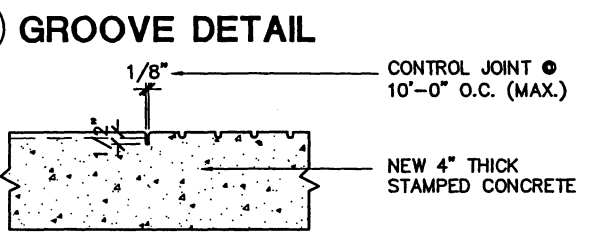
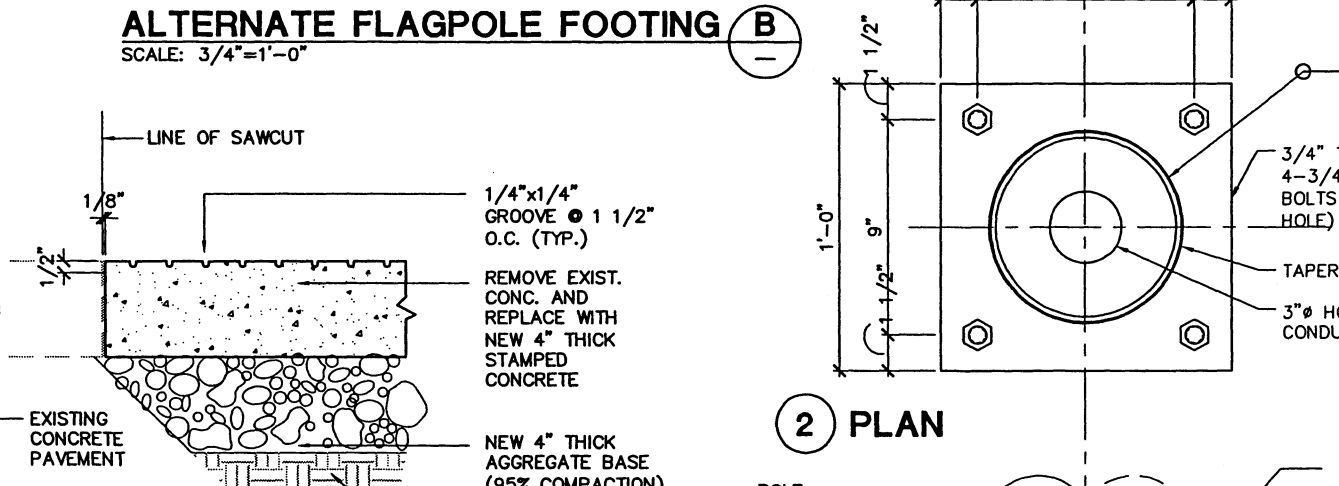
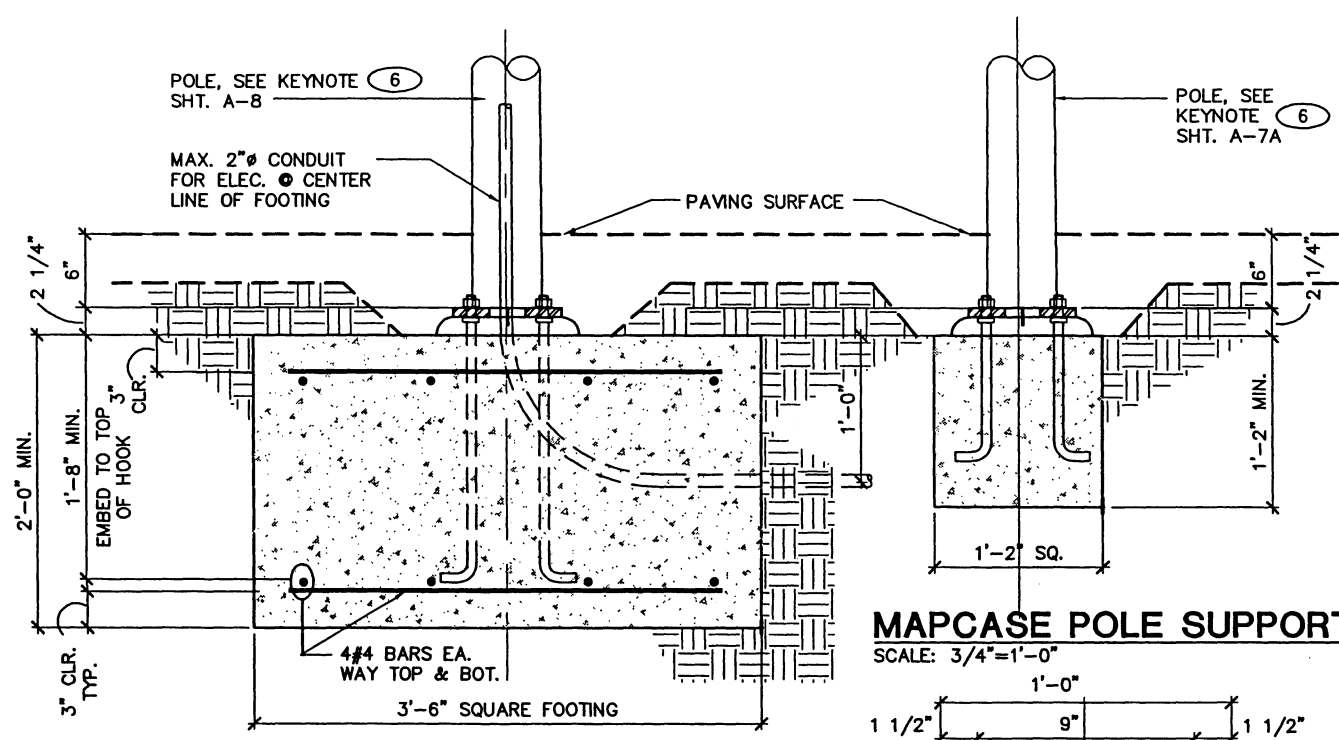
**LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION**

FILE/JOB NUMBER
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SCALE
AS SHOWN
DWG. NO.
S-1A
SHEET
20 OF 22

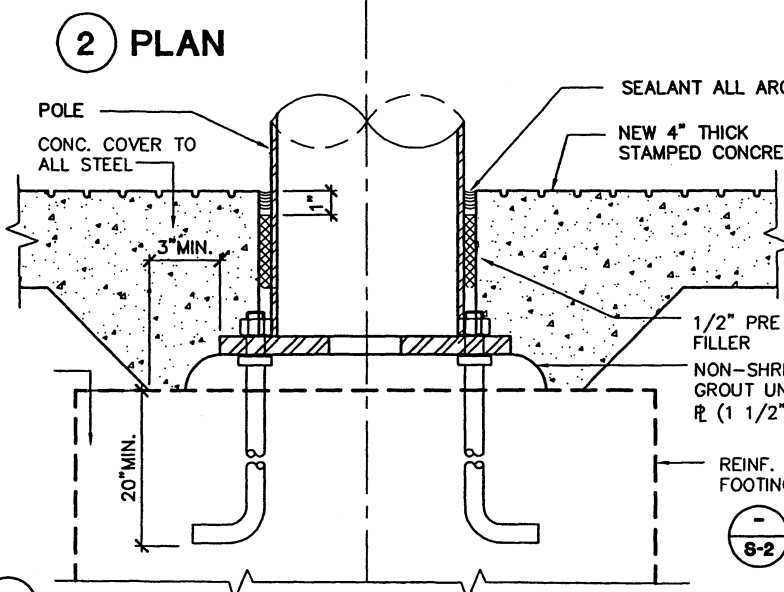
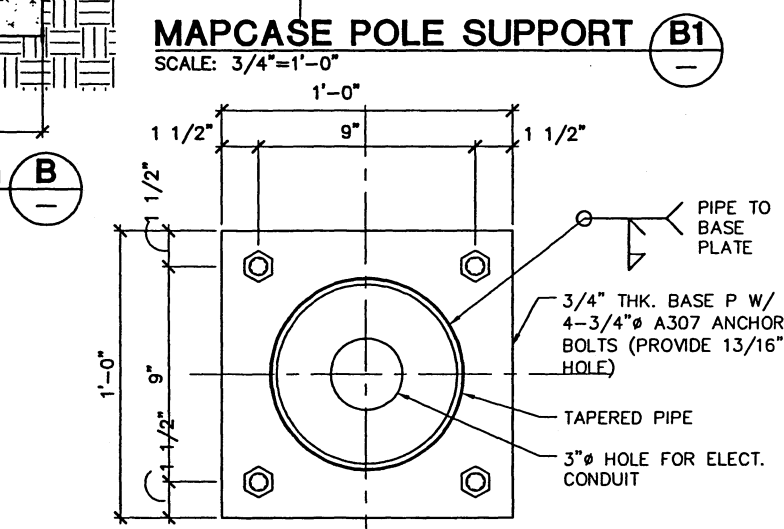
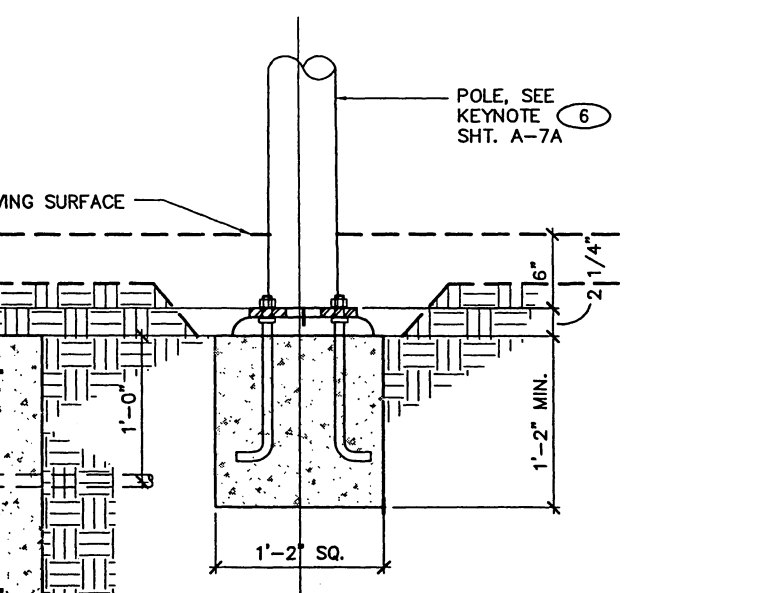
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FLAGPOLE CAISSON FOOTING (A)
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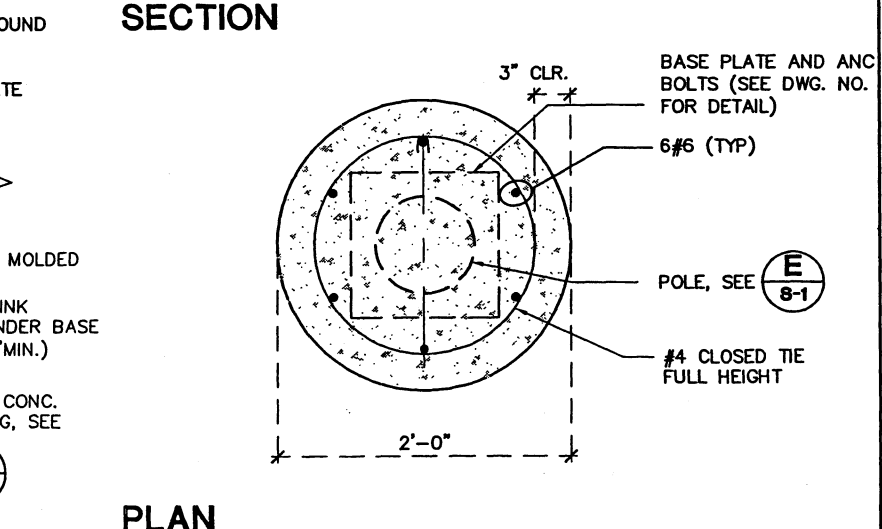
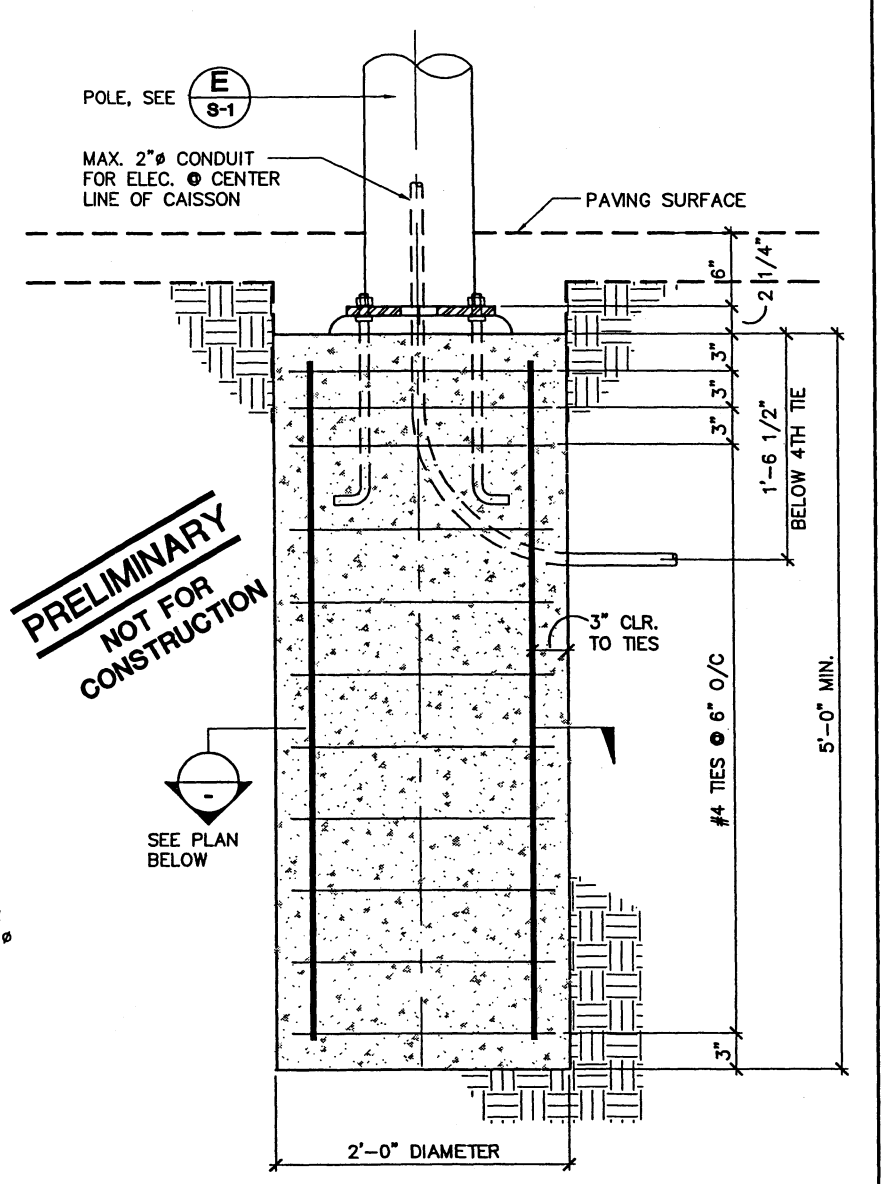


PAVING DETAILS (D)
SCALE: 3\"/>



BASE PLATE ANCHORS DETAIL (E)
SCALE: 3\"/>

**PRELIMINARY
NOT FOR
CONSTRUCTION**



CANOPY POLE CAISSON FOOTING (C)
SCALE: 3/4\"/>

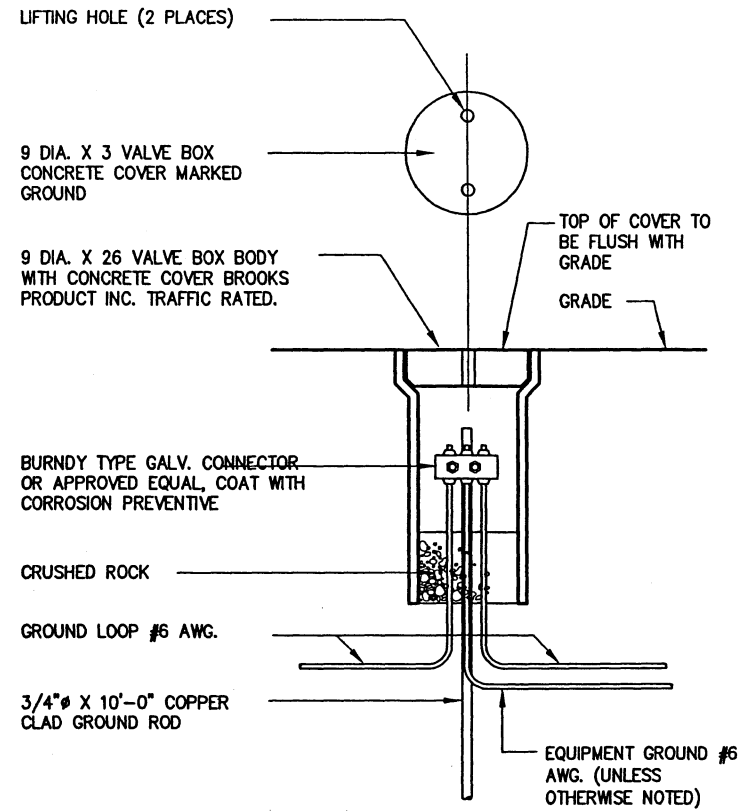
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DESIGNED	CF	DATE	09/29/03
DRAWN BY	MM	DATE	11/19/03
CHECKED	TB	DATE	11/26/03

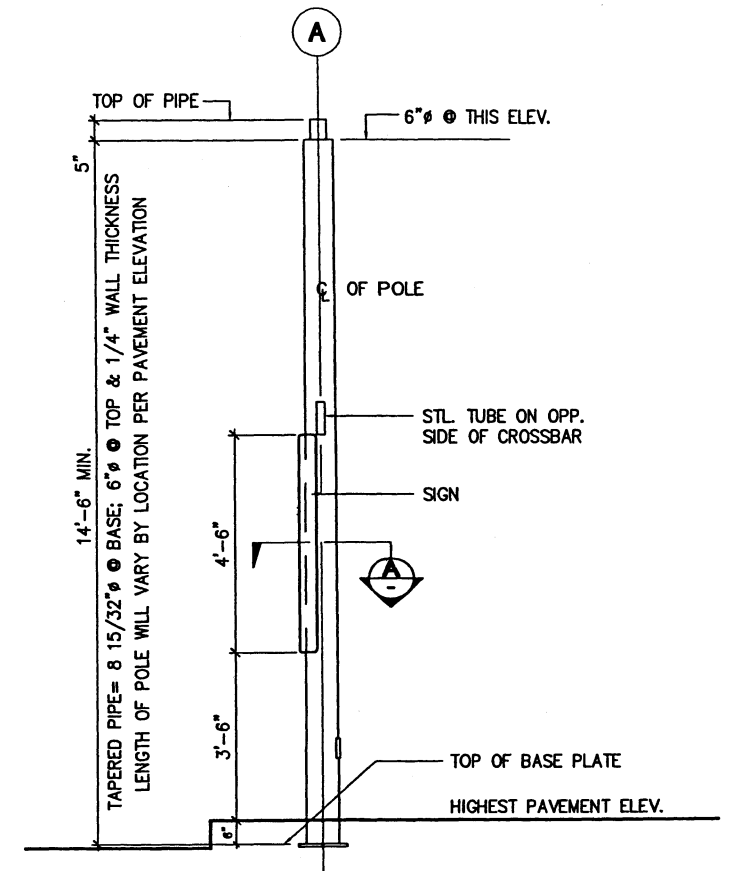
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
 FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION STATION STOPS		FILE/JOB NUMBER	PLOT FILES/S-2
FOOTING DETAILS		SCALE	AS SHOWN
		DWG. NO.	S-2
		SHEET	21 OF 22

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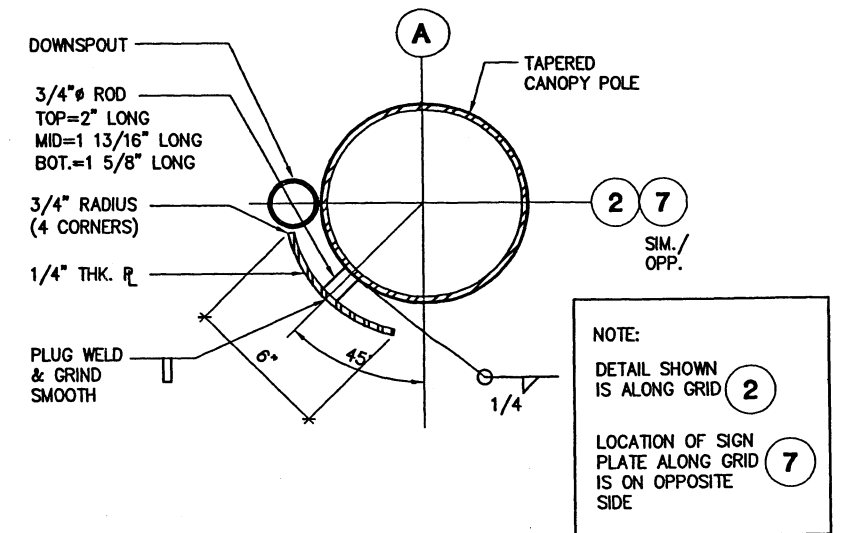
DETAIL B
SCALE: 1 1/2"=1'-0"



CANOPY POLE 1
SCALE: 3/4"=1'-0"

PRELIMINARY
NOT FOR
CONSTRUCTION

SUPPORT SCHEDULE				
STATION	CANOPY (WIDE)	POLE (TAPERED PIPE)	CAISSON	BASE PLATE AND ANCHOR BOLT
TYPE 6.1 OR TYPE 6.2	6'-0"	8 3/4"φ	24"φ x 5'-0" DEEP	12"x12"x3/4" BASE PLATE 4-7/8"φ A.B. x 2'-0" LONG
TYPE 8.1 OR TYPE 8.2	8'-0"	8 3/4"φ	26"φ x 6'-3" DEEP	14"x14"x1" BASE PLATE 4-7/8"φ A.B. x 2'-0" LONG
TYPE 10.1 OR TYPE 10.2	10'-0"	8 3/4"φ	26"φ x 6'-3" DEEP	14"x14"x1" BASE PLATE 4-3/4"φ A.B. x 1'-8" LONG



DETAIL A
SCALE: 3"=1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED CF	09/29/03	DATE
DRAWN BY MM	11/19/03	DATE
CHECKED TB	11/26/03	DATE



LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
FACILITIES - OPERATIONS, ENGINEERING DIVISION

METRO RAPID EXPANSION STATION STOPS	FILE/JOB NUMBER PLOT FILES/S-3
CANOPY POLE AND MISCELLANEOUS DETAILS	SCALE AS SHOWN
	DWG. NO. S-3
	SHEET 22 OF 22

**APPENDIX 8-C
TRANSPORTATION STUDY**

AM PEAK 2000

Wed Sep 22, 2004 17:33:00

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2000

Scenario Report

Scenario: AM PEAK 2000

Command: AM

Volume: AM PEAK 2000

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: AM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2000

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L --	T --	R	L --	T --	R	L --	T --	R	L --	T --	R
1 Topanga Canyo	63	801	165	86	1339	594	589	787	38	157	492	47
2 Topanga Canyo	82	821	155	154	1136	90	78	964	121	147	547	91
3 Reseda Blvd/	72	750	60	106	900	159	108	1363	59	91	1077	116
4 Sepulveda Blv	179	920	65	114	766	108	93	997	76	54	1026	126
5 Sepulveda Blv	306	631	31	187	1165	69	154	2234	958	239	1446	129
6 Van Nuys Blvd	132	828	148	100	535	158	71	513	38	125	718	99
7 Van Nuys Blvd	178	886	153	112	699	54	84	910	69	121	1081	55
8 Van Nuys Blvd	70	566	60	45	1160	82	61	810	187	70	683	105
9 Laurel Canyon	127	347	170	78	462	53	65	684	148	118	777	43
10 Laurel Canyon	102	402	72	111	473	79	115	931	181	107	813	94
11 Lankershim Bl	118	427	36	68	697	76	115	638	173	92	751	70
12 Lankershim Bl	49	542	0	0	1520	36	0	0	0	0	0	0
13 Lankershim Bl	27	418	39	61	942	29	219	213	105	26	60	77

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2000

Impact Analysis Report
Level Of Service

Intersection		Base			Future			Change in
		LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1	Topanga Canyon Blvd/ Roscoe Bl	C	26.5	0.715	C	26.5	0.715	+ 0.000 D/V
# 2	Topanga Canyon Blvd/ Vicotry B	C	25.5	0.647	C	25.5	0.647	+ 0.000 D/V
# 3	Reseda Blvd/ Victory Blvd	B	18.9	0.749	B	18.9	0.749	+ 0.000 D/V
# 4	Sepulveda Blvd/ Roscoe Blvd	C	22.8	0.502	C	22.8	0.502	+ 0.000 D/V
# 5	Sepulveda Blvd/ Victory Blvd	D	48.0	1.092	D	48.0	1.092	+ 0.000 D/V
# 6	Van Nuys Blvd/ San Fernando Rd	B	16.6	0.545	B	16.6	0.545	+ 0.000 D/V
# 7	Van Nuys Blvd/ Roscoe Blvd	C	23.7	0.507	C	23.7	0.507	+ 0.000 D/V
# 8	Van Nuys Blvd/ Victory Blvd	B	15.9	0.499	B	15.9	0.499	+ 0.000 D/V
# 9	Laurel Canyon Blvd/ Roscoe Blv	B	14.7	0.414	B	14.7	0.414	+ 0.000 D/V
# 10	Laurel Canyon Blvd/ Victory Bl	C	25.6	0.518	C	25.6	0.518	+ 0.000 D/V
# 11	Lankershim Blvd/ Oxnard St	B	16.6	0.575	B	16.6	0.575	+ 0.000 D/V
# 12	Lankershim Blvd/ Chandler Blvd	C	15.3	0.000	C	15.3	0.000	+ 0.000 D/V
# 13	Lankershim Blvd/ Chandler Blvd	B	13.5	0.459	B	13.5	0.459	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2000

Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.715
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 26.5
 Optimal Cycle: 80 Level Of Service: C

Street Name:	Topanga Canyon Blvd						Roscoe Blvd					
	North Bound			South Bound			East Bound			West Bound		
Approach:												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	1	0	2	2	0	2	2	0	2

Volume Module:

Base Vol:	63	801	165	86	1339	594	589	787	38	157	492	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	801	165	86	1339	594	589	787	38	157	492	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	66	843	174	91	1409	625	620	828	40	165	518	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	843	174	91	1409	625	620	828	40	165	518	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	66	843	174	91	1409	625	620	828	40	165	518	49

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.89	0.89	0.95	0.95	0.85	0.92	0.90	0.90	0.92	0.90	0.90
Lanes:	1.00	2.49	0.51	1.00	2.00	1.00	2.00	2.86	0.14	2.00	2.74	0.26
Final Sat.:	1805	4189	863	1805	3610	1615	3502	4913	237	3502	4673	446

Capacity Analysis Module:

Vol/Sat:	0.04	0.20	0.20	0.05	0.39	0.39	0.18	0.17	0.17	0.05	0.11	0.11
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.48	0.48	0.12	0.55	0.55	0.25	0.31	0.31	0.09	0.15	0.15
Volume/Cap:	0.72	0.42	0.42	0.42	0.72	0.71	0.72	0.54	0.54	0.54	0.72	0.72
Delay/Veh:	69.9	17.2	17.2	42.2	18.2	19.5	37.3	28.6	28.6	45.5	43.3	43.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.9	17.2	17.2	42.2	18.2	19.5	37.3	28.6	28.6	45.5	43.3	43.3
DesignQueue:	4	26	5	4	39	17	27	33	2	8	25	2

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2000

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), HCM Ops Adjusted Lane Utilization Module (Lanes, Lane Group, #LnsInGrps), HCM Ops Input Saturation Adj Module (Lane Width, % Hev Veh, Grade, Parking/Hr, Bus Stp/Hr, Area Type, Cnft Ped/Hr, ExclusivERT, % RT Prtct).

Table: HCM Ops f(rt) and f(lt) Adj Case Module. Rows: f(rt) Case, f(lt) Case. Columns: 12 columns of values.

Table: HCM Ops Saturation Adj Module. Rows: Ln Wid Adj, Hev Veh Adj, Grade Adj, Parking Adj, Bus Stp Adj, Area Adj, RT Adj, LT Adj, HCM Sat Adj, Usr Sat Adj, MLF Sat Adj, Fnl Sat Adj. Columns: 12 columns of values.

Table: Delay Adjustment Factor Module. Rows: Coordinated, Signal Type, DelAdjFctr. Columns: 12 columns of values.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2000

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.647
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.5
Optimal Cycle: 65 Level Of Service: C

Table with columns for Street Name (Topanga Canyon Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and Lanes.

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various movements.

Table for Saturation Flow Module showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2000

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 2 1 0 1 0 2 0 1 2 0 2 1 0 2 0 2 0 1
Lane Group: L RT RT L T R L RT RT L T R
#LnsInGrps: 1 3 3 1 2 1 2 3 3 2 2 1

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0
ExclusivERT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx xxxx 2 xxxx 5 5 xxxx xxxx 2
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.98 0.98 xxxx xxxx 0.85 xxxx 0.98 0.98 xxxx xxxx 0.85
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.98 0.98 0.95 1.00 0.85 0.95 0.98 0.98 0.95 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.91 0.91 1.00 0.95 1.00 0.97 0.91 0.91 0.97 0.95 1.00
Fnl Sat Adj: 0.95 0.89 0.89 0.95 0.95 0.85 0.92 0.89 0.89 0.92 0.95 0.85

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Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2000

Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.749
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 18.9
 Optimal Cycle: 57 Level Of Service: B

Street Name:	Reseda Blvd						Victory Blvd								
	North Bound			South Bound			East Bound			West Bound					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1

Volume Module:

Base Vol:	72	750	60	106	900	159	108	1363	59	91	1077	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	750	60	106	900	159	108	1363	59	91	1077	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	76	789	63	112	947	167	114	1435	62	96	1134	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	789	63	112	947	167	114	1435	62	96	1134	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	76	789	63	112	947	167	114	1435	62	96	1134	122

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.11	0.95	0.85	0.17	0.95	0.85	0.16	0.90	0.90	0.13	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.88	0.12	1.00	2.00	1.00
Final Sat.:	206	3610	1615	321	3610	1615	313	4942	214	251	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.37	0.22	0.04	0.35	0.26	0.10	0.36	0.29	0.29	0.38	0.31	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.51	0.51	0.51	0.51	0.51	0.51
Volume/Cap:	0.75	0.45	0.08	0.71	0.54	0.21	0.71	0.57	0.57	0.75	0.62	0.15
Delay/Veh:	46.8	16.8	13.6	33.8	17.9	14.6	32.9	17.3	17.3	41.0	18.2	13.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.8	16.8	13.6	33.8	17.9	14.6	32.9	17.3	17.3	41.0	18.2	13.1
DesignQueue:	2	24	2	3	29	5	3	42	2	3	34	3

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2000

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #3 Reseda Blvd/ Victory Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2000

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	32.85	32.85	59.15	59.15
Effective Green Time Per Lane Group, g:	36.85	36.85	63.15	63.15
Opposing Effective Green Time, go:	36.85	36.85	63.15	63.15
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	76	112	114	96
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.11	3.10	3.16	2.66
Adjusted Opposing Flow Rate, Vo:	947	789	1134	1497
Opposing Flow Per Lane Per Cycle, Volc:	13.85	11.54	17.31	14.59
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, gro:	0.63	0.63	0.37	0.37
Eff grn blocked by opposing queue, gq:	24.18	18.94	19.51	15.18
Eff grn while left turns filter thru, gu:	12.67	17.91	43.64	47.97
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.28	0.38	0.17	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, ell:	3.29	2.88	4.19	5.75
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.11	0.11	0.06	0.06
Single Lane Left Turn Adjustment Factor, fm:	0.11	0.17	0.16	0.13
Left Turn Adjustment Factor, flt:	0.11	0.17	0.16	0.13

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Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.502
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 46 Level Of Service: C

Table with columns for Street Name (Sepulveda Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L, T, R), HCM Ops Adjusted Lane Utilization Module, Lanes, Lane Group, and #LnsInGrps.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops Input Saturation Adj Module, Lane Width, % Hev Veh, Grade, Parking/Hr, Bus Stp/Hr, Area Type, Cnft Ped/Hr, ExclusiveRT, and % RT Prtct.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops f(rt) and f(lt) Adj Case Module, f(rt) Case, and f(lt) Case.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops Saturation Adj Module, Ln Wid Adj, Hev Veh Adj, Grade Adj, Parking Adj, Bus Stp Adj, Area Adj, RT Adj, LT Adj, HCM Sat Adj, Usr Sat Adj, MLF Sat Adj, and Fnl Sat Adj.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Delay Adjustment Factor Module, Coordinated, Signal Type, and DelAdjFctr.

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Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.092
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 48.0
 Optimal Cycle: 180 Level Of Service: D

Street Name:	Sepulveda Blvd					Victory Blvd						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	3	0	1	1	1	0	3	0	1	1

Volume Module:

Base Vol:	306	631	31	187	1165	69	154	2234	958	239	1446	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	306	631	31	187	1165	69	154	2234	958	239	1446	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	322	664	33	197	1226	73	162	2352	1008	252	1522	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	322	664	33	197	1226	73	162	2352	1008	252	1522	136
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	322	664	33	197	1226	73	162	2352	1008	252	1522	136

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.92	0.91	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3502	5187	1615	3502	5187	1615	1805	5187	1615	1805	5187	1615

Capacity Analysis Module:

Vol/Sat:	0.09	0.13	0.02	0.06	0.24	0.04	0.09	0.45	0.62	0.14	0.29	0.08
Crit Moves:	****			****					****	****		
Green/Cycle:	0.08	0.21	0.21	0.09	0.22	0.22	0.16	0.57	0.57	0.13	0.54	0.54
Volume/Cap:	1.09	0.61	0.10	0.61	1.09	0.21	0.55	0.79	1.09	1.09	0.55	0.16
Delay/Veh:	125.1	36.9	32.1	47.2	94.8	32.4	40.6	18.3	79.4	129.7	15.5	11.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	125.1	36.9	32.1	47.2	94.8	32.4	40.6	18.3	79.4	129.7	15.5	11.9
DesignQueue:	17	30	1	10	57	3	8	63	28	13	42	4

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Intersection #5 Sepulveda Blvd/ Victory Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, and various traffic metrics like Lane Width, % Hev Veh, Grade, etc.

Table for HCM Ops f(rt) and f(lt) Adj Case Module. Rows include f(rt) Case and f(lt) Case with values like xxxx, 2, 1, etc.

Table for HCM Ops Saturation Adj Module. Rows include Ln Wid Adj, Hev Veh Adj, Grade Adj, Parking Adj, Bus Stp Adj, Area Adj, RT Adj, LT Adj, HCM Sat Adj, Usr Sat Adj, MLF Sat Adj, and Fnl Sat Adj.

Table for Delay Adjustment Factor Module. Rows include Coordinated, Signal Type, and DelAdjFctr with values like <<<<<<<<<<<<<<<< No, Actuated, 1.00, etc.

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Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.545
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 16.6
 Optimal Cycle: 32 Level Of Service: B

Street Name:	San Fernando Rd						Van Nuys Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	1	0

Volume Module:	San Fernando Rd			San Fernando Rd			Van Nuys Blvd			Van Nuys Blvd		
Base Vol:	132	828	148	100	535	158	71	513	38	125	718	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	828	148	100	535	158	71	513	38	125	718	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	139	872	156	105	563	166	75	540	40	132	756	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	872	156	105	563	166	75	540	40	132	756	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	139	872	156	105	563	166	75	540	40	132	756	104

Saturation Flow Module:	San Fernando Rd			San Fernando Rd			Van Nuys Blvd			Van Nuys Blvd		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.29	0.93	0.93	0.18	0.92	0.92	0.19	0.94	0.94	0.32	0.93	0.93
Lanes:	1.00	1.70	0.30	1.00	1.54	0.46	1.00	1.86	0.14	1.00	1.76	0.24
Final Sat.:	547	2992	535	348	2692	795	361	3327	246	608	3115	430

Capacity Analysis Module:	San Fernando Rd			San Fernando Rd			Van Nuys Blvd			Van Nuys Blvd		
Vol/Sat:	0.25	0.29	0.29	0.30	0.21	0.21	0.21	0.16	0.16	0.22	0.24	0.24
Crit Moves:				****							****	
Green/Cycle:	0.56	0.56	0.56	0.56	0.56	0.56	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.46	0.52	0.52	0.55	0.38	0.38	0.47	0.36	0.36	0.49	0.55	0.55
Delay/Veh:	14.4	14.2	14.2	17.4	12.6	12.6	21.6	18.5	18.5	21.0	20.7	20.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.4	14.2	14.2	17.4	12.6	12.6	21.6	18.5	18.5	21.0	20.7	20.7
DesignQueue:	4	23	4	3	15	4	2	17	1	4	25	3

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Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 2 2 1 2 2 1 2 2 1 2 2
HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusivERT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0
HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx
HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.98 0.98 xxxx 0.97 0.97 xxxx 0.99 0.99 xxxx 0.98 0.98
LT Adj: 0.29 xxxx xxxxxx 0.18 xxxx xxxxxx 0.19 xxxx xxxxxx 0.32 xxxx xxxxxx
HCM Sat Adj: 0.29 0.98 0.98 0.18 0.97 0.97 0.19 0.99 0.99 0.32 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 0.95
Fnl Sat Adj: 0.29 0.93 0.93 0.18 0.92 0.92 0.19 0.94 0.94 0.32 0.93 0.93
Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	51.50	51.50	40.50	40.50
Effective Green Time Per Lane Group, g:	55.50	55.50	44.50	44.50
Opposing Effective Green Time, go:	55.50	55.50	44.50	44.50
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	139	105	75	132
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	3.86	2.92	2.08	3.65
Adjusted Opposing Flow Rate, Vo:	729	1027	860	580
Opposing Flow Per Lane Per Cycle, Volc:	10.66	15.01	12.57	8.48
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.44	0.44	0.56	0.56
Eff grn blocked by opposing queue, gq:	12.05	19.10	18.65	11.34
Eff grn while left turns filter thru, gu:	43.45	36.40	25.85	33.16
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.42	0.23	0.34	0.51
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, el1:	2.72	3.58	3.06	2.33
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.29	0.18	0.19	0.32
Left Turn Adjustment Factor, flt:	0.29	0.18	0.19	0.32

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Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.507
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 23.7
Optimal Cycle: 46 Level Of Service: C

Table with columns for Street Name (Van Nuys, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across various approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various approaches.

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Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.499
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 29 Level Of Service: B

Table with columns for Street Name (Van Nuys Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol., with sub-columns for each approach.

Saturation Flow Module:

Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat., with sub-columns for each approach.

Capacity Analysis Module:

Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue, with sub-columns for each approach.

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*****
Intersection #8 Van Nuys Blvd/ Victory Blvd
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
HCM Ops Adjusted Lane Utilization Module:
Lanes:         1 0 2 1 0      1 0 2 1 0      1 0 2 1 0      1 0 2 1 0
Lane Group:    L  RT      RT      L  RT      RT      L  RT      RT      L  RT      RT
#LnsInGrps:   1  3      3      1  3      3      1  3      3      1  3      3
-----|-----|-----|-----|
HCM Ops Input Saturation Adj Module:
Lane Width:   12  12      12      12  12      12      12  12      12      12  12      12
% Hev Veh:    0          0          0          0
Grade:        0%         0%         0%         0%
Parking/Hr:   No          No          No          No
Bus Stp/Hr:   0          0          0          0
Area Type:    < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr:  0          0          0          0
ExclusiveRT:  Include      Include      Include      Include
% RT Prtct:   0          0          0          0
-----|-----|-----|-----|
HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case:   xxxx  5      5  xxxx  5      5  xxxx  5      5  xxxx  5      5
f(lt) Case:   2  xxxx  xxxx      2  xxxx  xxxx      2  xxxx  xxxx      2  xxxx  xxxx
-----|-----|-----|-----|
HCM Ops Saturation Adj Module:
Ln Wid Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Hev Veh Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Grade Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Parking Adj:  xxxx 1.00  1.00  xxxx 1.00  1.00  xxxx 1.00  1.00  xxxx 1.00  1.00
Bus Stp Adj:  xxxx 1.00  1.00  xxxx 1.00  1.00  xxxx 1.00  1.00  xxxx 1.00  1.00
Area Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
RT Adj:       xxxx 0.99  0.99  xxxx 0.99  0.99  xxxx 0.97  0.97  xxxx 0.98  0.98
LT Adj:       0.14 xxxx  xxxxxx  0.34 xxxx  xxxxxx  0.24 xxxx  xxxxxx  0.17 xxxx  xxxxxx
HCM Sat Adj:  0.14 0.99  0.99  0.34 0.99  0.99  0.24 0.97  0.97  0.17 0.98  0.98
Usr Sat Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj:  1.00 0.91  0.91  1.00 0.91  0.91  1.00 0.91  0.91  1.00 0.91  0.91
Fnl Sat Adj:  0.14 0.90  0.90  0.34 0.90  0.90  0.24 0.88  0.88  0.17 0.89  0.89
-----|-----|-----|-----|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
*****

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Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	51.26	51.26	40.74	40.74
Effective Green Time Per Lane Group, g:	55.26	55.26	44.74	44.74
Opposing Effective Green Time, go:	55.26	55.26	44.74	44.74
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	74	47	64	74
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Left Turns Per Cycle, LTC:	2.05	1.32	1.78	2.05
Adjusted Opposing Flow Rate, Vo:	1307	659	829	1049
Opposing Flow Per Lane Per Cycle, Volc:	13.30	6.71	8.44	10.67
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.45	0.45	0.55	0.55
Eff grn blocked by opposing queue, gq:	16.21	6.93	11.22	15.00
Eff grn while left turns filter thru, gu:	39.05	48.33	33.52	29.74
Max opposing cars arriving during gq-gf, n:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Left-turn Saturation Factor, fs:	0.06	0.46	0.36	0.22
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalentents, el1:	5.03	2.61	3.08	3.84
Single Lane Through-car Equivalentents, el2:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.14	0.34	0.24	0.17
Left Turn Adjustment Factor, flt:	0.14	0.34	0.24	0.17

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Level of Service Calculations
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.414
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: 25 Level Of Service: B

Table with columns for Street Name (Laurel Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. for each movement.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue for each movement.

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Level of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1
Lane Group: L T R L T R L T R L T R
#LnsInGrps: 1 2 1 1 2 1 1 2 1 1 2 1
HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0
HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx
HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx xxxx 0.85
LT Adj: 0.38 xxxx xxxxxx 0.46 xxxx xxxxxx 0.25 xxxx xxxxxx 0.29 xxxx xxxxxx
HCM Sat Adj: 0.38 1.00 0.85 0.46 1.00 0.85 0.25 1.00 0.85 0.29 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00
Fnl Sat Adj: 0.38 0.95 0.85 0.46 0.95 0.85 0.25 0.95 0.85 0.29 0.95 0.85
Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < < No > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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 1997 HCM Operations Method
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 Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	41.22	41.22	50.78	50.78
Effective Green Time Per Lane Group, g:	45.22	45.22	54.78	54.78
Opposing Effective Green Time, go:	45.22	45.22	54.78	54.78
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	134	82	68	124
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Left Turns Per Cycle, LTC:	3.71	2.28	1.90	3.45
Adjusted Opposing Flow Rate, Vo:	486	365	818	720
Opposing Flow Per Lane Per Cycle, Volc:	7.11	5.34	11.96	10.53
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.55	0.55	0.45	0.45
Eff grn blocked by opposing queue, gq:	9.07	6.55	14.22	12.06
Eff grn while left turns filter thru, gu:	36.15	38.67	40.56	42.72
Max opposing cars arriving during gq-gf, n:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Left-turn Saturation Factor, fs:	0.57	0.65	0.36	0.43
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalentents, el1:	2.12	1.88	2.95	2.70
Single Lane Through-car Equivalentents, el2:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.38	0.46	0.25	0.29
Left Turn Adjustment Factor, flt:	0.38	0.46	0.25	0.29

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Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.518
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.6
 Optimal Cycle: 47 Level Of Service: C

Street Name: Laurel Canyon Blvd Victory Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	2	1	0

Volume Module:

Base Vol:	102	402	72	111	473	79	115	931	181	107	813	94
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	102	402	72	111	473	79	115	931	181	107	813	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	107	423	76	117	498	83	121	980	191	113	856	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	423	76	117	498	83	121	980	191	113	856	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	107	423	76	117	498	83	121	980	191	113	856	99

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.93	0.93	0.95	0.89	0.89	0.95	0.90	0.90
Lanes:	1.00	1.70	0.30	1.00	1.71	0.29	1.00	2.51	0.49	1.00	2.69	0.31
Final Sat.:	1805	2991	536	1805	3028	506	1805	4238	824	1805	4575	529

Capacity Analysis Module:

Vol/Sat:	0.06	0.14	0.14	0.06	0.16	0.16	0.07	0.23	0.23	0.06	0.19	0.19
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.30	0.30	0.14	0.32	0.32	0.15	0.45	0.45	0.12	0.42	0.42
Volume/Cap:	0.52	0.48	0.48	0.48	0.52	0.52	0.45	0.52	0.52	0.52	0.45	0.45
Delay/Veh:	43.9	29.1	29.1	41.4	28.3	28.3	39.9	20.1	20.1	43.4	21.0	21.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	29.1	29.1	41.4	28.3	28.3	39.9	20.1	20.1	43.4	21.0	21.0
DesignQueue:	5	17	3	6	20	3	6	32	6	6	29	3

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 0.575
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 16.6
Optimal Cycle: 34 Level Of Service: B

Table with columns for Street Name (Lankershim Blvd, Oxnard St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module:

Table showing traffic volume calculations including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table showing saturation flow calculations including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table showing capacity analysis calculations including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

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1997 HCM Operations Method
Base Volume Alternative

Intersection #11 Lankershim Blvd/ Oxnard St

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, HCM Ops Adjusted Lane Utilization Module, and #LnsInGrps.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops Input Saturation Adj Module, Lane Width, % Hev Veh, Grade, Parking/Hr, Bus Stp/Hr, Area Type, Cnft Ped/Hr, ExclusiveRT, and % RT Prtct.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops f(rt) and f(lt) Adj Case Module, f(rt) Case, and f(lt) Case.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops Saturation Adj Module, Ln Wid Adj, Hev Veh Adj, Grade Adj, Parking Adj, Bus Stp Adj, Area Adj, RT Adj, LT Adj, HCM Sat Adj, Usr Sat Adj, MLF Sat Adj, and Fnl Sat Adj.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Delay Adjustment Factor Module, Coordinated, Signal Type, and DelAdjFctr.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
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 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	45.61	45.61	46.39	46.39
Effective Green Time Per Lane Group, g:	49.61	49.61	50.39	50.39
Opposing Effective Green Time, go:	49.61	49.61	50.39	50.39
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	124	72	121	97
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	3.45	1.99	3.36	2.69
Adjusted Opposing Flow Rate, Vo:	814	487	864	854
Opposing Flow Per Lane Per Cycle, Volc:	11.90	7.12	12.63	12.49
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.50	0.50	0.50	0.50
Eff grn blocked by opposing queue, gq:	15.74	8.37	16.77	16.51
Eff grn while left turns filter thru, gu:	33.87	41.24	33.62	33.88
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.37	0.57	0.34	0.34
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.94	2.13	3.07	3.05
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.23	0.39	0.22	0.22
Left Turn Adjustment Factor, flt:	0.23	0.39	0.22	0.22

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Level Of Service Computation Report
1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: C [15.3]

Table with columns for Street Name (Lankershim Blvd, Chandler Blvd N.), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol., and rows for Lankershim Blvd and Chandler Blvd N.

Critical Gap Module: Table with columns for Critical Gp and FollowUpTim, and rows for Lankershim Blvd and Chandler Blvd N.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap., and rows for Lankershim Blvd and Chandler Blvd N.

Level Of Service Module: Table with columns for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS, and rows for Lankershim Blvd and Chandler Blvd N.

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 1997 HCM Unsignalized Method
 Base Volume Alternative

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:		0%			0%			0%			0%	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed:	4.00 feet/sec											
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period:	0.25 hour											

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.459
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 13.5
Optimal Cycle: 27 Level Of Service: B

Table with columns for Street Name (Lankershim Blvd, Chandler Blvd S.), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Min. Green values.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. for each movement.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values for each movement.

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1997 HCM Operations Method
Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0 2 0 1
Lane Group: L RT RT L RT RT L T R L T R
#LnsInGrps: 1 2 2 1 2 2 1 1 1 1 2 1

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx xxxx 2 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.99 0.99 xxxx 1.00 1.00 xxxx xxxx 0.85 xxxx xxxx 0.85
LT Adj: 0.21 xxxx xxxxx 0.43 xxxx xxxxx 0.70 xxxx xxxxxx 0.46 xxxx xxxxx
HCM Sat Adj: 0.21 0.99 0.99 0.43 1.00 1.00 0.70 1.00 0.85 0.46 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 1.00 1.00 1.00 0.95 1.00
Fnl Sat Adj: 0.21 0.94 0.94 0.43 0.95 0.95 0.70 1.00 0.85 0.46 0.95 0.85

Delay Adjustment Factor Module:

Coordinated: < < < < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	58.00	58.00	34.00	34.00
Effective Green Time Per Lane Group, g:	62.00	62.00	38.00	38.00
Opposing Effective Green Time, go:	62.00	62.00	38.00	38.00
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	28	64	231	27
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Left Turns Per Cycle, LTC:	0.79	1.78	6.40	0.76
Adjusted Opposing Flow Rate, Vo:	1022	481	63	224
Opposing Flow Per Lane Per Cycle, Volc:	14.94	7.03	0.88	6.55
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.38	0.38	0.62	0.62
Eff grn blocked by opposing queue, gq:	16.20	6.22	1.10	9.35
Eff grn while left turns filter thru, gu:	45.80	55.78	36.90	28.65
Max opposing cars arriving during gq-gf, n:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Left-turn Saturation Factor, fs:	0.24	0.57	0.84	0.74
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.57	2.11	1.39	1.65
Single Lane Through-car Equivalent, el2:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.06	0.06	0.11	0.11
Single Lane Left Turn Adjustment Factor, fm:	0.21	0.43	0.70	0.46
Left Turn Adjustment Factor, flt:	0.21	0.43	0.70	0.46

 San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2000

 Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

PM PEAK 2000

Wed Sep 22, 2004 17:33:05

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Scenario Report

Scenario: PM PEAK 2000

Command: PM

Volume: PM PEAK 2000

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: PM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2000

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Topanga Canyo	85	1318	212	116	1240	570	666	961	49	260	592	92
2 Topanga Canyo	169	1363	216	193	1097	118	164	767	158	296	917	209
3 Reseda Blvd/	141	1088	116	130	973	148	125	1468	95	109	1247	141
4 Sepulveda Blv	352	1425	105	321	884	239	256	1357	261	145	1211	229
5 Sepulveda Blv	537	1369	128	196	740	153	202	1780	415	76	1917	174
6 Van Nuys Blvd	60	518	112	127	596	109	72	344	27	93	718	166
7 Van Nuys Blvd	391	1124	295	329	795	89	270	1177	259	298	1314	196
8 Van Nuys Blvd	143	1196	156	80	1251	45	69	1445	129	78	1090	138
9 Laurel Canyon	170	872	131	137	571	111	134	513	149	73	957	164
10 Laurel Canyon	311	797	7	157	655	214	213	1210	227	134	1319	192
11 Lankershim Bl	162	679	79	141	639	118	175	825	140	101	654	123
12 Lankershim Bl	67	974	0	0	631	12	0	0	0	0	0	0
13 Lankershim Bl	40	811	22	74	651	26	156	144	84	27	111	94

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		LOS	Veh C	LOS	Veh C	
# 1 Topanga Canyon Blvd/ Roscoe Bl	C	30.0	0.763	C 30.0	0.763	+ 0.000 D/V
# 2 Topanga Canyon Blvd/ Vicotry B	C	30.9	0.757	C 30.9	0.757	+ 0.000 D/V
# 3 Reseda Blvd/ Victory Blvd	D	39.1	1.530	D 39.1	1.530	+ 0.000 D/V
# 4 Sepulveda Blvd/ Roscoe Blvd	C	31.9	0.786	C 31.9	0.786	+ 0.000 D/V
# 5 Sepulveda Blvd/ Victory Blvd	C	30.5	0.844	C 30.5	0.844	+ 0.000 D/V
# 6 Van Nuys Blvd/ San Fernando Rd	B	16.1	0.508	B 16.1	0.508	+ 0.000 D/V
# 7 Van Nuys Blvd/ Roscoe Blvd	C	33.3	0.785	C 33.3	0.785	+ 0.000 D/V
# 8 Van Nuys Blvd/ Victory Blvd	C	23.4	1.080	C 23.4	1.080	+ 0.000 D/V
# 9 Laurel Canyon Blvd/ Roscoe Blv	B	18.5	0.830	B 18.5	0.830	+ 0.000 D/V
# 10 Laurel Canyon Blvd/ Victory Bl	D	37.2	0.881	D 37.2	0.881	+ 0.000 D/V
# 11 Lankershim Blvd/ Oxnard St	B	19.3	0.791	B 19.3	0.791	+ 0.000 D/V
# 12 Lankershim Blvd/ Chandler Blvd	A	9.2	0.000	A 9.2	0.000	+ 0.000 D/V
# 13 Lankershim Blvd/ Chandler Blvd	B	12.2	0.380	B 12.2	0.380	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.763
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 96 Level Of Service: C

Table with columns for Street Name (Topanga Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and Lanes (1, 0, 2, 1, 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 2 1 0 1 0 2 0 1 2 0 2 1 0 2 0 2 1 0
Lane Group: L RT RT L T R L RT RT L RT RT
#LnsInGrps: 1 3 3 1 2 1 2 3 3 2 3 3

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: < < < < < < < < < < < Other > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx 5 5 xxxx xxxx 2 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.98 0.98 xxxx xxxx 0.85 xxxx 0.99 0.99 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.98 0.98 0.95 1.00 0.85 0.95 0.99 0.99 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.91 0.91 1.00 0.95 1.00 0.97 0.91 0.91 0.97 0.91 0.91
Fnl Sat Adj: 0.95 0.89 0.89 0.95 0.95 0.85 0.92 0.90 0.90 0.92 0.89 0.89

Delay Adjustment Factor Module:

Coordinated: < < < < < < < < < < < No > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.757
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 30.9
Optimal Cycle: 94 Level Of Service: C

Table with columns for Street Name (Topanga Canyon Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.530
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 39.1
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Reseda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Lanes (1, 0, 2, 0, 1).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2000

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	40.91	40.91	51.09	51.09
Effective Green Time Per Lane Group, g:	44.91	44.91	55.09	55.09
Opposing Effective Green Time, go:	44.91	44.91	55.09	55.09
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	148	137	132	115
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.12	3.80	3.65	3.19
Adjusted Opposing Flow Rate, Vo:	1024	1145	1313	1645
Opposing Flow Per Lane Per Cycle, Volc:	14.97	16.74	20.04	16.03
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.55	0.55	0.45	0.45
Eff grn blocked by opposing queue, gq:	23.54	27.73	30.04	21.20
Eff grn while left turns filter thru, gu:	21.37	17.18	25.05	33.89
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.24	0.16	0.05	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.57	4.03	5.06	6.69
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.13	0.09	0.09	0.09
Left Turn Adjustment Factor, flt:	0.13	0.09	0.09	0.09

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.786
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 31.9
Optimal Cycle: 107 Level Of Service: C

Table with columns for Street Name (Sepulveda Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and Min. Green (0).

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Table for Saturation Flow Module showing Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 2 3 3 2 3 3 2 3 3 2 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.99 0.99 xxxx 0.97 0.97 xxxx 0.98 0.98 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.99 0.99 0.95 0.97 0.97 0.95 0.98 0.98 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91
Fnl Sat Adj: 0.92 0.90 0.90 0.92 0.88 0.88 0.92 0.89 0.89 0.92 0.89 0.89

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < < No > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.844
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 30.5
Optimal Cycle: 146 Level Of Service: C

Table with columns for Street Name (Sepulveda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for various traffic volume metrics (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol) across different approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across different approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across different approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #5 Sepulveda Blvd/ Victory Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.508
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 16.1
Optimal Cycle: 29 Level Of Service: B

Street Name: San Fernando Rd Van Nuys Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol: 60 518 112 127 596 109 72 344 27 93 718 166
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 60 518 112 127 596 109 72 344 27 93 718 166
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 63 545 118 134 627 115 76 362 28 98 756 175
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 63 545 118 134 627 115 76 362 28 98 756 175
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 63 545 118 134 627 115 76 362 28 98 756 175

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.25 0.92 0.92 0.29 0.93 0.93 0.20 0.94 0.94 0.46 0.92 0.92
Lanes: 1.00 1.64 0.36 1.00 1.69 0.31 1.00 1.85 0.15 1.00 1.62 0.38
Final Sat.: 481 2888 624 551 2982 545 384 3310 260 870 2850 659

Capacity Analysis Module:
Vol/Sat: 0.13 0.19 0.19 0.24 0.21 0.21 0.20 0.11 0.11 0.11 0.27 0.27
Crit Moves: ****
Green/Cycle: 0.48 0.48 0.48 0.48 0.48 0.48 0.52 0.52 0.52 0.52 0.52 0.52
Volume/Cap: 0.27 0.40 0.40 0.51 0.44 0.44 0.38 0.21 0.21 0.22 0.51 0.51
Delay/Veh: 16.4 17.0 17.0 19.6 17.5 17.5 15.4 12.9 12.9 13.1 15.8 15.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.4 17.0 17.0 19.6 17.5 17.5 15.4 12.9 12.9 13.1 15.8 15.8
DesignQueue: 2 17 4 4 19 4 2 10 1 3 21 5

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2000

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2000

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	43.80	43.80	48.20	48.20
Effective Green Time Per Lane Group, g:	47.80	47.80	52.20	52.20
Opposing Effective Green Time, go:	47.80	47.80	52.20	52.20
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	63	134	76	98
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.75	3.71	2.11	2.72
Adjusted Opposing Flow Rate, Vo:	742	663	931	391
Opposing Flow Per Lane Per Cycle, Volc:	10.85	9.69	13.61	5.72
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.52	0.52	0.48	0.48
Eff grn blocked by opposing queue, gq:	14.46	12.55	17.88	6.17
Eff grn while left turns filter thru, gu:	33.34	35.25	34.32	46.03
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.41	0.46	0.29	0.63
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.75	2.55	3.25	1.92
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.25	0.29	0.20	0.46
Left Turn Adjustment Factor, flt:	0.25	0.29	0.20	0.46

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Level of Service Calculations
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Level of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.785
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 33.3
Optimal Cycle: 106 Level Of Service: C

Table with columns for Street Name (Van Nuys, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and Lanes (2, 0, 2, 1, 0).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.080
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (Van Nuys Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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1997 HCM Operations Method
Base Volume Alternative

Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 2 1 0 1 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 3 3 1 3 3 1 3 3 1 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: <<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.98 0.98 xxxx 1.00 1.00 xxxx 0.99 0.99 xxxx 0.98 0.98
LT Adj: 0.13 xxxx xxxxxx 0.12 xxxx xxxxxx 0.11 xxxx xxxxxx 0.09 xxxx xxxxxx
HCM Sat Adj: 0.13 0.98 0.98 0.12 1.00 1.00 0.11 0.99 0.99 0.09 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 0.91 0.91 1.00 0.91 0.91
Fnl Sat Adj: 0.13 0.89 0.89 0.12 0.91 0.91 0.11 0.90 0.90 0.09 0.89 0.89

Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	52.05	52.05	39.95	39.95
Effective Green Time Per Lane Group, g:	56.05	56.05	43.95	43.95
Opposing Effective Green Time, go:	56.05	56.05	43.95	43.95
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	151	84	73	82
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.18	2.34	2.02	2.28
Adjusted Opposing Flow Rate, Vo:	1364	1423	1293	1657
Opposing Flow Per Lane Per Cycle, Volc:	13.88	14.48	13.16	16.86
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.44	0.44	0.56	0.56
Eff grn blocked by opposing queue, gq:	16.88	17.91	20.02	28.52
Eff grn while left turns filter thru, gu:	39.17	38.14	23.93	15.43
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.02	0.00	0.07	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	5.34	5.69	4.95	7.29
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.13	0.12	0.11	0.09
Left Turn Adjustment Factor, flt:	0.13	0.12	0.11	0.09

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Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.830
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 18.5
Optimal Cycle: 85 Level Of Service: B

Table with columns for Street Name (Laurel Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Min. Green (0, 0, 0). Includes a section for Lanes (1, 0, 2, 0, 1).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol. Values range from 170 to 164.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Values range from 1900 to 1615.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue. Values range from 0.29 to 5.

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	45.28	45.28	46.72	46.72
Effective Green Time Per Lane Group, g:	49.28	49.28	50.72	50.72
Opposing Effective Green Time, go:	49.28	49.28	50.72	50.72
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	179	144	141	77
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.97	4.01	3.92	2.13
Adjusted Opposing Flow Rate, Vo:	601	918	1007	540
Opposing Flow Per Lane Per Cycle, Volc:	8.79	13.42	14.72	7.89
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.51	0.51	0.49	0.49
Eff grn blocked by opposing queue, gq:	10.81	18.61	20.57	9.24
Eff grn while left turns filter thru, gu:	38.47	30.67	30.15	41.48
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.50	0.30	0.25	0.54
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalentents, ell:	2.38	3.22	3.51	2.24
Single Lane Through-car Equivalentents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.33	0.19	0.17	0.37
Left Turn Adjustment Factor, flt:	0.33	0.19	0.17	0.37

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Level of Service Calculations
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.881
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 37.2
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Laurel Canyon Blvd and Victory Blvd with North, South, East, and West Bound movements.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various lanes.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for different lane configurations.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue for various lane movements.

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 0.791
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 19.3
Optimal Cycle: 69 Level Of Service: B

Table with columns for Street Name (Lankershim Blvd, Oxnard St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Min. Green (0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 movement categories.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 movement categories.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 movement categories.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	44.75	44.75	47.25	47.25
Effective Green Time Per Lane Group, g:	48.75	48.75	51.25	51.25
Opposing Effective Green Time, go:	48.75	48.75	51.25	51.25
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	171	148	184	106
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.74	4.12	5.12	2.95
Adjusted Opposing Flow Rate, Vo:	797	798	818	1016
Opposing Flow Per Lane Per Cycle, Volc:	11.65	11.67	11.96	14.85
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, gro:	0.51	0.51	0.49	0.49
Eff grn blocked by opposing queue, gq:	15.57	15.60	15.33	20.60
Eff grn while left turns filter thru, gu:	33.18	33.15	35.92	30.65
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.38	0.38	0.36	0.24
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, ell:	2.90	2.90	2.95	3.54
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.23	0.23	0.24	0.17
Left Turn Adjustment Factor, flt:	0.23	0.23	0.24	0.17

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Level Of Service Computation Report
 1997 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: A[9.2]

Street Name:	Lankershim Blvd						Chandler Blvd N.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	2	0	0	2	0	0	0	0	0	0

Volume Module:

Base Vol:	67	974	0	0	631	12	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	974	0	0	631	12	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	71	1025	0	0	664	13	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	71	1025	0	0	664	13	0	0	0	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	677	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	924	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	924	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

Stopped Del:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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 1997 HCM Unsignalized Method
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 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed:	4.00 feet/sec											
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period:	0.25 hour											

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.380
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: 23 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Lankershim Blvd and Chandler Blvd S. with sub-approaches North Bound, South Bound, East Bound, and West Bound.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various approaches.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. across various approaches.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various approaches.

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1997 HCM Operations Method
Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	60.25	60.25	31.75	31.75
Effective Green Time Per Lane Group, g:	64.25	64.25	35.75	35.75
Opposing Effective Green Time, go:	64.25	64.25	35.75	35.75
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	42	78	164	28
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.17	2.16	4.56	0.79
Adjusted Opposing Flow Rate, Vo:	713	877	117	152
Opposing Flow Per Lane Per Cycle, Volc:	10.42	12.82	1.63	4.44
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.36	0.36	0.64	0.64
Eff grn blocked by opposing queue, gq:	9.42	12.33	2.16	6.27
Eff grn while left turns filter thru, gu:	54.83	51.92	33.59	29.48
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.43	0.33	0.80	0.78
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.68	3.11	1.48	1.54
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.06	0.06	0.11	0.11
Single Lane Left Turn Adjustment Factor, fm:	0.32	0.26	0.64	0.54
Left Turn Adjustment Factor, flt:	0.32	0.26	0.64	0.54

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2000

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

AM PEAK 2020 Base

Wed Sep 22, 2004 17:34:10

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Scenario Report

Scenario: AM PEAK 2020 Base

Command: AM

Volume: AM PEAK 2020 Base

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: AM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 Base

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Topanga Canyo	75	948	196	92	1434	636	793	1061	52	211	660	63
2 Topanga Canyo	97	972	183	165	1216	96	105	1299	163	197	732	122
3 Reseda Blvd/	86	888	72	113	963	171	146	1837	79	122	1443	155
4 Sepulveda Blv	234	1201	85	133	897	127	133	1428	109	76	1447	177
5 Sepulveda Blv	399	823	40	219	1364	81	221	3200	1372	337	2038	182
6 Van Nuys Blvd	172	1081	193	118	626	185	102	735	55	176	1012	140
7 Van Nuys Blvd	232	1156	200	131	819	63	120	1303	99	171	1524	78
8 Van Nuys Blvd	91	739	78	52	1359	96	87	1160	268	98	962	148
9 Laurel Canyon	165	452	222	92	541	62	93	980	212	167	1095	61
10 Laurel Canyon	133	525	94	130	554	92	165	1333	260	151	1145	133
11 Lankershim Bl	154	557	47	80	816	89	165	914	248	130	1059	99
12 Lankershim Bl	64	707	0	0	1780	42	0	0	0	0	0	0
13 Lankershim Bl	35	545	51	71	1103	34	314	305	150	37	85	109

 San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 Base

Impact Analysis Report
 Level Of Service

Intersection	Base LOS	Base		Future LOS	Future		Change in
		Del/ Veh	V/ C		Del/ Veh	V/ C	
# 1 Topanga Canyon Blvd/ Roscoe Bl	C	32.0	0.849	C	32.0	0.849	+ 0.000 D/V
# 2 Topanga Canyon Blvd/ Vicotry B	C	28.6	0.772	C	28.6	0.772	+ 0.000 D/V
# 3 Reseda Blvd/ Victory Blvd	D	39.1	1.573	D	39.1	1.573	+ 0.000 D/V
# 4 Sepulveda Blvd/ Roscoe Blvd	C	25.2	0.679	C	25.2	0.679	+ 0.000 D/V
# 5 Sepulveda Blvd/ Victory Blvd	F	118.3	1.488	F	118.3	1.488	+ 0.000 D/V
# 6 Van Nuys Blvd/ San Fernando Rd	C	32.5	1.317	C	32.5	1.317	+ 0.000 D/V
# 7 Van Nuys Blvd/ Roscoe Blvd	C	26.2	0.684	C	26.2	0.684	+ 0.000 D/V
# 8 Van Nuys Blvd/ Victory Blvd	C	23.5	1.190	C	23.5	1.190	+ 0.000 D/V
# 9 Laurel Canyon Blvd/ Roscoe Blv	B	16.5	0.768	B	16.5	0.768	+ 0.000 D/V
# 10 Laurel Canyon Blvd/ Victory Bl	C	27.9	0.689	C	27.9	0.689	+ 0.000 D/V
# 11 Lankershim Blvd/ Oxnard St	C	32.5	1.263	C	32.5	1.263	+ 0.000 D/V
# 12 Lankershim Blvd/ Chandler Blvd	C	19.6	0.000	C	19.6	0.000	+ 0.000 D/V
# 13 Lankershim Blvd/ Chandler Blvd	B	15.7	0.591	B	15.7	0.591	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 Base

Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.849
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 32.0
 Optimal Cycle: 151 Level Of Service: C

Street Name:	Topanga Canyon Blvd						Roscoe Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	1	0	2	2	0	2	2	0	2

Volume Module:	Topanga Canyon Blvd			Topanga Canyon Blvd			Roscoe Blvd			Roscoe Blvd		
Base Vol:	75	948	196	92	1434	636	793	1061	52	211	660	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	75	948	196	92	1434	636	793	1061	52	211	660	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	79	998	206	97	1509	669	835	1117	55	222	695	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	998	206	97	1509	669	835	1117	55	222	695	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	79	998	206	97	1509	669	835	1117	55	222	695	66

Saturation Flow Module:	Topanga Canyon Blvd			Topanga Canyon Blvd			Roscoe Blvd			Roscoe Blvd		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.89	0.89	0.95	0.95	0.85	0.92	0.90	0.90	0.92	0.90	0.90
Lanes:	1.00	2.49	0.51	1.00	2.00	1.00	2.00	2.86	0.14	2.00	2.74	0.26
Final Sat.:	1805	4187	866	1805	3610	1615	3502	4910	241	3502	4673	446

Capacity Analysis Module:	Topanga Canyon Blvd			Topanga Canyon Blvd			Roscoe Blvd			Roscoe Blvd		
Vol/Sat:	0.04	0.24	0.24	0.05	0.42	0.41	0.24	0.23	0.23	0.06	0.15	0.15
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.44	0.44	0.10	0.49	0.49	0.28	0.36	0.36	0.10	0.18	0.18
Volume/Cap:	0.85	0.54	0.54	0.54	0.85	0.84	0.85	0.64	0.64	0.64	0.85	0.85
Delay/Veh:	95.3	20.5	20.5	46.0	26.2	30.1	41.0	27.6	27.6	47.2	47.6	47.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	95.3	20.5	20.5	46.0	26.2	30.1	41.0	27.6	27.6	47.2	47.6	47.6
DesignQueue:	4	33	7	5	48	21	35	42	2	11	33	3

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.772
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 28.6
Optimal Cycle: 100 Level Of Service: C

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for Topanga Canyon Blvd and Victory Blvd.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol. across four approaches.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. across four approaches.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 2 1 0 1 0 2 0 1 2 0 2 1 0 2 0 2 0 1
Lane Group: L RT RT L T R L RT RT L T R
#LnsInGrps: 1 3 3 1 2 1 2 3 3 2 2 1

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0
ExclusivERT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx 5 5 xxxx xxxx 2 xxxx 5 5 xxxx xxxx 2
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.98 0.98 xxxx xxxx 0.85 xxxx 0.98 0.98 xxxx xxxx 0.85
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.98 0.98 0.95 1.00 0.85 0.95 0.98 0.98 0.95 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.91 0.91 1.00 0.95 1.00 0.97 0.91 0.91 0.97 0.95 1.00
Fnl Sat Adj: 0.95 0.89 0.89 0.95 0.95 0.85 0.92 0.89 0.89 0.92 0.95 0.85

Delay Adjustment Factor Module:

Coordinated: < < < < < < < < < < < No > > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.573
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 39.1
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Reseda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 lanes.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 lanes.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 lanes.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #3 Reseda Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 1 0 1 0 2 0 1
Lane Group: L T R L T R L RT RT L T R
#LnsInGrps: 1 2 1 1 2 1 1 3 3 1 2 1

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx xxxx 2 xxxx xxxx 2 xxxx 5 5 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx 0.99 0.99 xxxx xxxx 0.85
LT Adj: 0.11 xxxx xxxxx 0.11 xxxx xxxxxx 0.09 xxxx xxxxxx 0.07 xxxx xxxxxx
HCM Sat Adj: 0.11 1.00 0.85 0.11 1.00 0.85 0.09 0.99 0.99 0.07 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.91 0.91 1.00 0.95 1.00 1.00
Fnl Sat Adj: 0.11 0.95 0.85 0.11 0.95 0.85 0.09 0.90 0.90 0.07 0.95 0.85

Delay Adjustment Factor Module:

Coordinated: < < < < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 Base

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	30.99	30.99	61.01	61.01
Effective Green Time Per Lane Group, g:	34.99	34.99	65.01	65.01
Opposing Effective Green Time, go:	34.99	34.99	65.01	65.01
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	91	119	154	128
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.51	3.30	4.27	3.57
Adjusted Opposing Flow Rate, Vo:	1014	935	1519	2017
Opposing Flow Per Lane Per Cycle, Volc:	14.82	13.67	23.18	19.66
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.65	0.65	0.35	0.35
Eff grn blocked by opposing queue, gq:	27.40	24.46	30.25	22.67
Eff grn while left turns filter thru, gu:	7.59	10.53	34.76	42.34
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.24	0.29	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.53	3.26	6.29	9.80
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.11	0.11	0.06	0.06
Single Lane Left Turn Adjustment Factor, fm:	0.11	0.11	0.08	0.07
Left Turn Adjustment Factor, flt:	0.11	0.11	0.08	0.07

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.679
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.2
Optimal Cycle: 71 Level Of Service: C

Table with columns for Street Name (Sepulveda Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 lanes.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 lanes.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 lanes.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.488
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 118.3
Optimal Cycle: 180 Level Of Service: F

Street Name: Sepulveda Blvd Victory Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 3 0 1 1 0 3 0 1

Volume Module:
Base Vol: 399 823 40 219 1364 81 221 3200 1372 337 2038 182
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 399 823 40 219 1364 81 221 3200 1372 337 2038 182
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 420 866 42 231 1436 85 233 3368 1444 355 2145 192
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 420 866 42 231 1436 85 233 3368 1444 355 2145 192
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 420 866 42 231 1436 85 233 3368 1444 355 2145 192

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.91 0.85 0.95 0.91 0.85
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 3502 5187 1615 3502 5187 1615 1805 5187 1615 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.12 0.17 0.03 0.07 0.28 0.05 0.13 0.65 0.89 0.20 0.41 0.12
Crit Moves: **** **** **** ****
Green/Cycle: 0.08 0.19 0.19 0.08 0.19 0.19 0.17 0.60 0.60 0.13 0.56 0.56
Volume/Cap: 1.49 0.87 0.14 0.87 1.49 0.28 0.74 1.08 1.49 1.49 0.74 0.21
Delay/Veh: 283.3 47.9 33.8 71.5 266 35.5 48.1 62.6 244.8 283.8 17.6 11.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 283.3 47.9 33.8 71.5 266 35.5 48.1 62.6 244.8 283.8 17.6 11.1
DesignQueue: 22 41 2 12 70 4 11 88 40 18 58 5

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.317
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 32.5
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (San Fernando Rd, Van Nuys Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 172 1081 193 118 626 185 102 735 55 176 1012 140
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 172 1081 193 118 626 185 102 735 55 176 1012 140
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 181 1138 203 124 659 195 107 774 58 185 1065 147
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 181 1138 203 124 659 195 107 774 58 185 1065 147
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 181 1138 203 124 659 195 107 774 58 185 1065 147

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.24 0.93 0.93 0.10 0.92 0.92 0.09 0.94 0.94 0.20 0.93 0.93
Lanes: 1.00 1.70 0.30 1.00 1.54 0.46 1.00 1.86 0.14 1.00 1.76 0.24
Final Sat.: 453 2993 534 182 2692 795 169 3325 249 386 3114 431

Capacity Analysis Module:
Vol/Sat: 0.40 0.38 0.38 0.68 0.24 0.24 0.64 0.23 0.23 0.48 0.34 0.34
Crit Moves: ****
Green/Cycle: 0.52 0.52 0.52 0.52 0.52 0.52 0.48 0.48 0.48 0.48 0.48 0.48
Volume/Cap: 0.77 0.74 0.74 1.32 0.47 0.47 1.32 0.48 0.48 0.99 0.71 0.71
Delay/Veh: 34.0 20.4 20.4 223.7 15.6 15.6 232.1 17.6 17.6 89.6 21.7 21.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 34.0 20.4 20.4 223.7 15.6 15.6 232.1 17.6 17.6 89.6 21.7 21.7
DesignQueue: 5 34 6 3 19 6 3 24 2 5 33 5

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	50.96	50.96	41.04	41.04
Effective Green Time Per Lane Group, g:	54.96	54.96	45.04	45.04
Opposing Effective Green Time, go:	54.96	54.96	45.04	45.04
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	181	124	107	185
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	5.03	3.45	2.98	5.15
Adjusted Opposing Flow Rate, Vo:	854	1341	1213	832
Opposing Flow Per Lane Per Cycle, Volc:	12.49	19.61	17.73	12.16
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.45	0.45	0.55	0.55
Eff grn blocked by opposing queue, gq:	14.99	29.05	30.21	17.67
Eff grn while left turns filter thru, gu:	39.97	25.91	14.83	27.37
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.34	0.04	0.12	0.36
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.05	4.91	4.32	2.99
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.24	0.10	0.09	0.20
Left Turn Adjustment Factor, flt:	0.24	0.10	0.09	0.20

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Level of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.684
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 26.2
Optimal Cycle: 72 Level Of Service: C

Street Name: Van Nuys Roscoe Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0

Volume Module:

Base Vol: 232 1156 200 131 819 63 120 1303 99 171 1524 78
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 232 1156 200 131 819 63 120 1303 99 171 1524 78
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 244 1217 211 138 862 66 126 1372 104 180 1604 82
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 244 1217 211 138 862 66 126 1372 104 180 1604 82
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 244 1217 211 138 862 66 126 1372 104 180 1604 82

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.89 0.89 0.92 0.90 0.90 0.92 0.90 0.90 0.92 0.90 0.90
Lanes: 2.00 2.56 0.44 2.00 2.79 0.21 2.00 2.79 0.21 2.00 2.85 0.15
Final Sat.: 3502 4325 748 3502 4764 366 3502 4768 362 3502 4900 251

Capacity Analysis Module:

Vol/Sat: 0.07 0.28 0.28 0.04 0.18 0.18 0.04 0.29 0.29 0.05 0.33 0.33
Crit Moves: ****
Green/Cycle: 0.13 0.41 0.41 0.06 0.34 0.34 0.05 0.45 0.45 0.08 0.48 0.48
Volume/Cap: 0.53 0.68 0.68 0.68 0.53 0.53 0.68 0.64 0.64 0.64 0.68 0.68
Delay/Veh: 41.9 25.1 25.1 55.6 27.1 27.1 56.7 21.8 21.8 49.4 21.0 21.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 41.9 25.1 25.1 55.6 27.1 27.1 56.7 21.8 21.8 49.4 21.0 21.0
DesignQueue: 12 43 7 7 33 3 7 45 3 9 50 3

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1997 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.190
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 23.5
 Optimal Cycle: 180 Level Of Service: C

Street Name: Van Nuys Blvd Victory Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted				Permitted				Permitted				Permitted							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Lanes:	1	0	2	1	0	1	0	2	1	0	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	91	739	78	52	1359	96	87	1160	268	98	962	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	739	78	52	1359	96	87	1160	268	98	962	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	96	778	82	55	1431	101	92	1221	282	103	1013	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	778	82	55	1431	101	92	1221	282	103	1013	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	96	778	82	55	1431	101	92	1221	282	103	1013	156

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.08	0.90	0.90	0.25	0.90	0.90	0.16	0.88	0.88	0.09	0.89	0.89
Lanes:	1.00	2.71	0.29	1.00	2.80	0.20	1.00	2.44	0.56	1.00	2.60	0.40
Final Sat.:	160	4626	488	471	4796	339	304	4096	946	175	4405	678

Capacity Analysis Module:

Vol/Sat:	0.60	0.17	0.17	0.12	0.30	0.30	0.30	0.30	0.30	0.59	0.23	0.23
Crit Moves:	****											
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Volume/Cap:	1.19	0.33	0.33	0.23	0.59	0.59	0.61	0.60	0.60	1.19	0.46	0.46
Delay/Veh:	185.1	14.9	14.9	14.4	17.9	17.9	25.1	18.5	18.5	181.8	16.6	16.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	185.1	14.9	14.9	14.4	17.9	17.9	25.1	18.5	18.5	181.8	16.6	16.6
DesignQueue:	3	22	2	2	42	3	3	37	8	3	30	5

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Level of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
1997 HCM Operations Method
Base Volume Alternative

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*****
Intersection #8 Van Nuys Blvd/ Victory Blvd
*****
Approach:
Cycle Length, C:
Actual Green Time Per Lane Group, G:
Effective Green Time Per Lane Group, g:
Opposing Effective Green Time, go:
Number Of Opposing Lanes, No:
Number Of Lanes In Lane Group, N:
Adjusted Left-Turn Flow Rate, Vlt:
Proportion of Left Turns in Lane Group, Plt:
Proportion of Left Turns in Opp Flow, Plto:
Left Turns Per Cycle, LTC:
Adjusted Opposing Flow Rate, Vo:
Opposing Flow Per Lane Per Cycle, Volc:
Opposing Platoon Ratio, Rpo:
Lost Time Per Phase, tl:
Eff grn until arrival of left-turn car, gf:
Opposing Queue Ratio, qro:
Eff grn blocked by opposing queue, gq:
Eff grn while left turns filter thru, gu:
Max opposing cars arriving during gq-gf, n:
Proportion of Opposing Thru & RT cars, ptho:
Left-turn Saturation Factor, fs:
Proportion of Left Turns in Shared Lane, pl:
Through-car Equivalent, el1:
Single Lane Through-car Equivalent, el2:
Minimum Left Turn Adjustment Factor, fmin:
Single Lane Left Turn Adjustment Factor, fm:
Left Turn Adjustment Factor, flt:
*****

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	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	45.46	45.46	46.54	46.54
Effective Green Time Per Lane Group, g:	49.46	49.46	50.54	50.54
Opposing Effective Green Time, go:	49.46	49.46	50.54	50.54
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	96	55	92	103
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.66	1.52	2.54	2.87
Adjusted Opposing Flow Rate, Vo:	1532	860	1168	1503
Opposing Flow Per Lane Per Cycle, Volc:	15.59	8.75	11.88	15.29
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.51	0.51	0.49	0.49
Eff grn blocked by opposing queue, gq:	22.90	10.72	15.42	21.79
Eff grn while left turns filter thru, gu:	26.56	38.74	35.12	28.75
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.00	0.34	0.15	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	6.38	3.16	4.35	6.19
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.08	0.25	0.16	0.09
Left Turn Adjustment Factor, flt:	0.08	0.25	0.16	0.09

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.768
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 62 Level Of Service: B

Street Name: Laurel Canyon Blvd Roscoe Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 13 columns for traffic metrics: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol., and Sat/Lane.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

 San Fernando Valley E-W Revised EIR
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Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	35.52	35.52	56.48	56.48
Effective Green Time Per Lane Group, g:	39.52	39.52	60.48	60.48
Opposing Effective Green Time, go:	39.52	39.52	60.48	60.48
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	174	97	98	176
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.82	2.69	2.72	4.88
Adjusted Opposing Flow Rate, Vo:	569	476	1153	1032
Opposing Flow Per Lane Per Cycle, Volc:	8.32	6.96	16.86	15.09
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.60	0.60	0.40	0.40
Eff grn blocked by opposing queue, gq:	12.07	9.78	20.10	17.08
Eff grn while left turns filter thru, gu:	27.45	29.74	40.38	43.40
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.52	0.58	0.15	0.23
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.30	2.10	4.07	3.60
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.10	0.10	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.30	0.36	0.16	0.20
Left Turn Adjustment Factor, flt:	0.30	0.36	0.16	0.20

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.689
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 27.9
Optimal Cycle: 73 Level Of Service: C

Table with columns for Street Name (Laurel Canyon Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module:
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol., and values for each of the four approaches.

Saturation Flow Module:
Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat., and values for each of the four approaches.

Capacity Analysis Module:
Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue, and values for each of the four approaches.

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 1.263
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 32.5
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (Lankershim Blvd, Oxnard St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol., and 12 data columns.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat., and 12 data columns.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue, and 12 data columns.

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Intersection #11 Lankershim Blvd/ Oxnard St

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 2 2 1 2 2 1 2 2 1 2 2

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: 5 5 5 5 5 5 5 5 5 5 5 5
f(lt) Case: 2 2 2 2 2 2 2 2 2 2 2 2

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Bus Stp Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: 1.00 0.99 0.99 1.00 0.99 0.99 1.00 0.97 0.97 1.00 0.99 0.99
LT Adj: 0.16 1.00 1.00 0.29 1.00 1.00 0.12 1.00 1.00 0.12 1.00 1.00
HCM Sat Adj: 0.16 0.99 0.99 0.29 0.99 0.99 0.12 0.97 0.97 0.12 0.99 0.99
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 0.95
Fnl Sat Adj: 0.16 0.94 0.94 0.29 0.94 0.94 0.12 0.92 0.92 0.12 0.94 0.94

Delay Adjustment Factor Module:

Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	41.29	41.29	50.71	50.71
Effective Green Time Per Lane Group, g:	45.29	45.29	54.71	54.71
Opposing Effective Green Time, go:	45.29	45.29	54.71	54.71
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	162	84	174	137
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.50	2.34	4.82	3.80
Adjusted Opposing Flow Rate, Vo:	953	636	1219	1223
Opposing Flow Per Lane Per Cycle, Volc:	13.93	9.30	17.82	17.88
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.55	0.55	0.45	0.45
Eff grn blocked by opposing queue, gq:	21.14	12.50	25.08	25.21
Eff grn while left turns filter thru, gu:	24.15	32.79	29.63	29.50
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.28	0.48	0.11	0.11
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, ell:	3.31	2.47	4.34	4.36
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.16	0.29	0.12	0.12
Left Turn Adjustment Factor, flt:	0.16	0.29	0.12	0.12

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 Base

Level Of Service Detailed Computation Report
 1997 HCM Unsignalized Method
 Base Volume Alternative

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period: 0.25 hour												

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.591
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 15.7
Optimal Cycle: 35 Level Of Service: B

Table with columns for Street Name (Lankershim Blvd, Chandler Blvd S.), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol., and 12 sub-columns for lane volumes.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat., and 12 sub-columns for lane saturation values.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue, and 12 sub-columns for lane capacity metrics.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 Base

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0 2 0 1
Lane Group: L RT RT L RT RT L T R L T R
#LnsInGrps: 1 2 2 1 2 2 1 1 1 1 2 1

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: < < < < < < < < < < < Other > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx xxxx 2 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.99 0.99 xxxx 1.00 1.00 xxxx xxxx 0.85 xxxx xxxx 0.85
LT Adj: 0.14 xxxx xxxxx 0.34 xxxx xxxxxx 0.68 xxxx xxxxxx 0.39 xxxx xxxxxx
HCM Sat Adj: 0.14 0.99 0.99 0.34 1.00 1.00 0.68 1.00 0.85 0.39 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 1.00 1.00 1.00 0.95 1.00
Fnl Sat Adj: 0.14 0.94 0.94 0.34 0.95 0.95 0.68 1.00 0.85 0.39 0.95 0.85

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < < No > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 Base

Level of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	52.35	52.35	39.65	39.65
Effective Green Time Per Lane Group, g:	56.35	56.35	43.65	43.65
Opposing Effective Green Time, go:	56.35	56.35	43.65	43.65
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	37	75	331	39
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.02	2.08	9.18	1.08
Adjusted Opposing Flow Rate, Vo:	1197	627	89	321
Opposing Flow Per Lane Per Cycle, Volc:	17.50	9.17	1.24	9.39
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.44	0.44	0.56	0.56
Eff grn blocked by opposing queue, gq:	23.50	9.80	1.43	13.02
Eff grn while left turns filter thru, gu:	32.85	46.55	42.22	30.63
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.13	0.48	0.82	0.67
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	4.25	2.45	1.43	1.81
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.14	0.34	0.67	0.39
Left Turn Adjustment Factor, flt:	0.14	0.34	0.67	0.39

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 Base

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

AM PEAK 2020 RB3

Wed Sep 22, 2004 17:35:11

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB3

Scenario Report

Scenario: AM PEAK 2020 RB3
Command: AM
Volume: AM PEAK 2020 RB3
Geometry: Default Geometry
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Paths
Routes: Default Routes
Configuration: AM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB3

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Topanga Canyo	75	948	196	92	1432	635	788	1053	51	208	653	63
2 Topanga Canyo	99	986	185	167	1228	98	105	1292	164	197	726	123
3 Reseda Blvd/	86	888	72	113	962	170	145	1824	79	121	1428	154
4 Sepulveda Blv	233	1196	84	132	889	126	133	1422	108	76	1432	175
5 Sepulveda Blv	398	820	40	217	1353	80	220	3187	1366	333	2017	180
6 Van Nuys Blvd	171	1077	192	117	621	183	101	732	55	174	1002	139
7 Van Nuys Blvd	231	1151	199	130	812	63	120	1298	99	169	1509	77
8 Van Nuys Blvd	91	736	78	52	1347	96	87	1156	267	97	952	146
9 Laurel Canyon	165	450	221	91	536	62	93	976	211	165	1083	60
10 Laurel Canyon	132	523	94	129	549	91	164	1328	259	149	1134	131
11 Lankershim Bl	155	576	48	79	830	88	164	910	249	130	1048	98
12 Lankershim Bl	71	745	0	0	1805	43	0	0	0	0	0	0
13 Lankershim Bl	36	554	62	99	1104	37	321	312	174	46	86	116

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB3

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1	Topanga Canyon Blvd/ Roscoe Bl	C	31.8 0.845	C	31.8 0.845	+ 0.000 D/V
# 2	Topanga Canyon Blvd/ Vicotry B	C	28.7 0.776	C	28.7 0.776	+ 0.000 D/V
# 3	Reseda Blvd/ Victory Blvd	D	38.8 1.560	D	38.8 1.560	+ 0.000 D/V
# 4	Sepulveda Blvd/ Roscoe Blvd	C	25.1 0.673	C	25.1 0.673	+ 0.000 D/V
# 5	Sepulveda Blvd/ Victory Blvd	F	116.1 1.479	F	116.1 1.479	+ 0.000 D/V
# 6	Van Nuys Blvd/ San Fernando Rd	C	31.6 1.290	C	31.6 1.290	+ 0.000 D/V
# 7	Van Nuys Blvd/ Roscoe Blvd	C	26.1 0.679	C	26.1 0.679	+ 0.000 D/V
# 8	Van Nuys Blvd/ Victory Blvd	C	23.0 1.164	C	23.0 1.164	+ 0.000 D/V
# 9	Laurel Canyon Blvd/ Roscoe Blv	B	16.4 0.756	B	16.4 0.756	+ 0.000 D/V
# 10	Laurel Canyon Blvd/ Victory Bl	C	27.8 0.684	C	27.8 0.684	+ 0.000 D/V
# 11	Lankershim Blvd/ Oxnard St	C	32.9 1.265	C	32.9 1.265	+ 0.000 D/V
# 12	Lankershim Blvd/ Chandler Blvd	C	20.6 0.000	C	20.6 0.000	+ 0.000 D/V
# 13	Lankershim Blvd/ Chandler Blvd	B	15.9 0.599	B	15.9 0.599	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB3

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.845
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 31.8
Optimal Cycle: 147 Level Of Service: C

Table with columns for Street Name (Topanga Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB3

Level of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.776
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 28.7
 Optimal Cycle: 102 Level Of Service: C

Street Name:	Topanga Canyon Blvd					Victory Blvd									
Approach:	North Bound			South Bound		East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected			Protected		Protected			Protected						
Rights:	Include			Include		Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	2	1	0	1	0	2	0	1	2	0	2	0	1

Volume Module:

Base Vol:	99	986	185	167	1228	98	105	1292	164	197	726	123
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	99	986	185	167	1228	98	105	1292	164	197	726	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	104	1038	195	176	1293	103	111	1360	173	207	764	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	1038	195	176	1293	103	111	1360	173	207	764	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	104	1038	195	176	1293	103	111	1360	173	207	764	129

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.89	0.89	0.95	0.95	0.85	0.92	0.89	0.89	0.92	0.95	0.85
Lanes:	1.00	2.53	0.47	1.00	2.00	1.00	2.00	2.66	0.34	2.00	2.00	1.00
Final Sat.:	1805	4263	800	1805	3610	1615	3502	4525	574	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.06	0.24	0.24	0.10	0.36	0.06	0.03	0.30	0.30	0.06	0.21	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.38	0.38	0.15	0.46	0.46	0.06	0.39	0.39	0.08	0.40	0.40
Volume/Cap:	0.78	0.64	0.64	0.64	0.78	0.14	0.52	0.78	0.78	0.78	0.52	0.20
Delay/Veh:	69.6	25.9	25.9	44.6	24.9	15.6	48.0	28.8	28.8	58.6	22.9	19.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.6	25.9	25.9	44.6	24.9	15.6	48.0	28.8	28.8	58.6	22.9	19.5
DesignQueue:	5	38	7	8	42	3	6	50	6	11	27	4

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB3

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB3

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.560
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 38.8
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Reseda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol., with sub-columns for each approach.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat., with sub-columns for each approach.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue, with sub-columns for each approach.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB3

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #3 Reseda Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 1 0 1 0 2 0 1
Lane Group: L T R L T R L RT RT L T R
#LnsInGrps: 1 2 1 1 2 1 1 3 3 1 2 1

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx xxxx 2 xxxx xxxx 2 xxxx 5 5 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx 0.99 0.99 xxxx xxxx 0.85
LT Adj: 0.11 xxxx xxxxxx 0.11 xxxx xxxxxx 0.09 xxxx xxxxxx 0.07 xxxx xxxxxx
HCM Sat Adj: 0.11 1.00 0.85 0.11 1.00 0.85 0.09 0.99 0.99 0.07 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.91 0.91 1.00 0.95 1.00
Fnl Sat Adj: 0.11 0.95 0.85 0.11 0.95 0.85 0.09 0.90 0.90 0.07 0.95 0.85

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB3

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	31.73	31.73	60.27	60.27
Effective Green Time Per Lane Group, g:	35.73	35.73	64.27	64.27
Opposing Effective Green Time, go:	35.73	35.73	64.27	64.27
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	91	119	153	127
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.51	3.30	4.24	3.54
Adjusted Opposing Flow Rate, Vo:	1013	935	1503	2003
Opposing Flow Per Lane Per Cycle, Volc:	14.81	13.67	22.94	19.52
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.64	0.64	0.36	0.36
Eff grn blocked by opposing queue, gq:	27.05	24.18	30.29	22.89
Eff grn while left turns filter thru, gu:	8.68	11.55	33.98	41.38
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.24	0.29	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.53	3.26	6.19	9.66
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.11	0.11	0.06	0.06
Single Lane Left Turn Adjustment Factor, fm:	0.11	0.11	0.09	0.07
Left Turn Adjustment Factor, flt:	0.11	0.11	0.09	0.07

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.673
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.1
Optimal Cycle: 70 Level Of Service: C

Table with columns for Street Name (Sepulveda Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various approaches.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for different approaches.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue for various approaches.

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1997 HCM Operations Method
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Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #5 Sepulveda Blvd/ Victory Blvd
*****
Cycle (sec):          100          Critical Vol./Cap. (X):          1.479
Loss Time (sec):      0 (Y+R = 4 sec) Average Delay (sec/veh):          116.1
Optimal Cycle:        180          Level Of Service:          F
*****
Street Name:          Sepulveda Blvd          Victory Blvd
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Protected          Protected          Protected          Protected
Rights:               Include          Include          Include          Include
Min. Green:           0 0 0          0 0 0          0 0 0          0 0 0
Lanes:                2 0 3 0 1      2 0 3 0 1      1 0 3 0 1      1 0 3 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:             398 820 40 217 1353 80 220 3187 1366 333 2017 180
Growth Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:          398 820 40 217 1353 80 220 3187 1366 333 2017 180
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:           419 863 42 228 1424 84 232 3355 1438 351 2123 189
Reduct Vol:           0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:          419 863 42 228 1424 84 232 3355 1438 351 2123 189
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:           419 863 42 228 1424 84 232 3355 1438 351 2123 189
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:           0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.91 0.85 0.95 0.91 0.85
Lanes:                2.00 3.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.:           3502 5187 1615 3502 5187 1615 1805 5187 1615 1805 5187 1615
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.12 0.17 0.03 0.07 0.27 0.05 0.13 0.65 0.89 0.19 0.41 0.12
Crit Moves:          ****          ****          ****          ****
Green/Cycle:          0.08 0.19 0.19 0.08 0.19 0.19 0.18 0.60 0.60 0.13 0.56 0.56
Volume/Cap:           1.48 0.87 0.14 0.87 1.48 0.28 0.73 1.07 1.48 1.48 0.73 0.21
Delay/Veh:            279.5 47.5 33.8 70.9 262 35.5 47.6 60.2 240.9 280.2 17.5 11.2
User DelAdj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           279.5 47.5 33.8 70.9 262 35.5 47.6 60.2 240.9 280.2 17.5 11.2
DesignQueue:          22 40 2 12 69 4 11 88 40 18 58 5
*****
    
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.290
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 31.6
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include San Fernando Rd and Van Nuys Blvd with North and South Bound movements.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat for different movement types.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue for various movements.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	51.13	51.13	40.87	40.87
Effective Green Time Per Lane Group, g:	55.13	55.13	44.87	44.87
Opposing Effective Green Time, go:	55.13	55.13	44.87	44.87
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	180	123	106	183
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	5.00	3.42	2.95	5.09
Adjusted Opposing Flow Rate, Vo:	846	1336	1201	828
Opposing Flow Per Lane Per Cycle, Volc:	12.37	19.53	17.56	12.11
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.45	0.45	0.55	0.55
Eff grn blocked by opposing queue, gq:	14.75	28.77	29.84	17.61
Eff grn while left turns filter thru, gu:	40.38	26.36	15.03	27.26
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.35	0.04	0.12	0.36
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.03	4.88	4.26	2.98
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.24	0.10	0.09	0.20
Left Turn Adjustment Factor, flt:	0.24	0.10	0.09	0.20

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.679
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 26.1
Optimal Cycle: 71 Level Of Service: C

Table with columns for Street Name (Van Nuys, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and Lanes (2, 0, 2, 1, 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 movement categories.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 movement categories.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 movement categories.

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Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.164
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 23.0
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (Van Nuys Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
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Intersection #8 Van Nuys Blvd/ Victory Blvd

Table with 5 columns: Parameter, North, South, East, West. Rows include Approach, Cycle Length, Actual Green Time, Effective Green Time, etc.

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Level of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.756
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 16.4
Optimal Cycle: 59 Level Of Service: B

Table with columns for Street Name (Laurel Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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 Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	35.64	35.64	56.36	56.36
Effective Green Time Per Lane Group, g:	39.64	39.64	60.36	60.36
Opposing Effective Green Time, go:	39.64	39.64	60.36	60.36
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	174	96	98	174
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.82	2.66	2.72	4.82
Adjusted Opposing Flow Rate, Vo:	564	474	1140	1027
Opposing Flow Per Lane Per Cycle, Volc:	8.25	6.93	16.67	15.01
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.60	0.60	0.40	0.40
Eff grn blocked by opposing queue, gq:	11.92	9.71	19.82	17.01
Eff grn while left turns filter thru, gu:	27.72	29.93	40.54	43.35
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.52	0.58	0.16	0.23
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.29	2.10	4.00	3.58
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.10	0.10	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.31	0.36	0.17	0.20
Left Turn Adjustment Factor, flt:	0.31	0.36	0.17	0.20

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.684
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 27.8
Optimal Cycle: 72 Level Of Service: C

Street Name: Laurel Canyon Blvd Victory Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 132 523 94 129 549 91 164 1328 259 149 1134 131
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 132 523 94 129 549 91 164 1328 259 149 1134 131
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 139 551 99 136 578 96 173 1398 273 157 1194 138
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 139 551 99 136 578 96 173 1398 273 157 1194 138
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 139 551 99 136 578 96 173 1398 273 157 1194 138

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.93 0.93 0.95 0.93 0.93 0.95 0.89 0.89 0.95 0.90 0.90
Lanes: 1.00 1.70 0.30 1.00 1.72 0.28 1.00 2.51 0.49 1.00 2.69 0.31
Final Sat.: 1805 2990 537 1805 3032 503 1805 4236 826 1805 4575 529

Capacity Analysis Module:
Vol/Sat: 0.08 0.18 0.18 0.08 0.19 0.19 0.10 0.33 0.33 0.09 0.26 0.26
Crit Moves: ****
Green/Cycle: 0.11 0.28 0.28 0.11 0.28 0.28 0.16 0.48 0.48 0.13 0.45 0.45
Volume/Cap: 0.68 0.66 0.66 0.66 0.68 0.68 0.59 0.68 0.68 0.68 0.59 0.59
Delay/Veh: 52.0 33.7 33.7 50.4 34.2 34.2 41.7 20.8 20.8 50.0 21.2 21.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.0 33.7 33.7 50.4 34.2 34.2 41.7 20.8 20.8 50.0 21.2 21.2
DesignQueue: 7 23 4 7 24 4 8 44 9 8 39 5

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1997 HCM Operations Method
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Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 1.265
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (Lankershim Blvd, Oxnard St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Lanes (1, 0, 1, 1, 0).

Volume Module table with rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol., and columns for each approach and movement.

Saturation Flow Module table with rows for Sat/Lane, Adjustment, Lanes, and Final Sat., and columns for each approach and movement.

Capacity Analysis Module table with rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue, and columns for each approach and movement.

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Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	42.38	42.38	49.62	49.62
Effective Green Time Per Lane Group, g:	46.38	46.38	53.62	53.62
Opposing Effective Green Time, go:	46.38	46.38	53.62	53.62
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	163	83	173	137
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.53	2.31	4.80	3.80
Adjusted Opposing Flow Rate, Vo:	966	657	1206	1220
Opposing Flow Per Lane Per Cycle, Volc:	14.12	9.61	17.63	17.84
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.54	0.54	0.46	0.46
Eff grn blocked by opposing queue, gq:	21.11	12.75	25.26	25.72
Eff grn while left turns filter thru, gu:	25.27	33.63	28.36	27.90
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.27	0.46	0.12	0.11
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, el1:	3.36	2.53	4.28	4.35
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.16	0.29	0.12	0.12
Left Turn Adjustment Factor, flt:	0.16	0.29	0.12	0.12

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1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C [20.6]

Table with columns for Street Name (Lankershim Blvd, Chandler Blvd N.), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol across various movements.

Critical Gap Module table showing Critical Gp and FollowUpTim values for different movements.

Capacity Module table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for various movements.

Level of Service Module table showing Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS.

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Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed:	4.00 feet/sec											
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period:	0.25 hour											

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.599
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 36 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Lankershim Blvd and Chandler Blvd S. with North, South, East, and West bound movements.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various movement categories.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different movement types.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB3

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0 2 0 1
Lane Group: L RT RT L RT RT L T R L T R
#LnsInGrps: 1 2 2 1 2 2 1 1 1 1 2 1

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx xxxx 2 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.99 0.99 xxxx 1.00 1.00 xxxx xxxx 0.85 xxxx xxxx 0.85
LT Adj: 0.13 xxxx xxxxxx 0.33 xxxx xxxxxx 0.67 xxxx xxxxxx 0.39 xxxx xxxxxx
HCM Sat Adj: 0.13 0.99 0.99 0.33 1.00 1.00 0.67 1.00 0.85 0.39 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 1.00 1.00 1.00 0.95 1.00
Fnl Sat Adj: 0.13 0.94 0.94 0.33 0.95 0.95 0.67 1.00 0.85 0.39 0.95 0.85

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB3

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	51.87	51.87	40.13	40.13
Effective Green Time Per Lane Group, g:	55.87	55.87	44.13	44.13
Opposing Effective Green Time, go:	55.87	55.87	44.13	44.13
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	38	104	338	48
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.05	2.89	9.39	1.35
Adjusted Opposing Flow Rate, Vo:	1201	648	91	328
Opposing Flow Per Lane Per Cycle, Volc:	17.56	9.47	1.26	9.59
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.44	0.44	0.56	0.56
Eff grn blocked by opposing queue, gq:	23.89	10.32	1.45	13.26
Eff grn while left turns filter thru, gu:	31.98	45.55	42.68	30.87
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.12	0.47	0.82	0.67
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, ell:	4.26	2.51	1.44	1.82
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.13	0.33	0.67	0.38
Left Turn Adjustment Factor, flt:	0.13	0.33	0.67	0.38

San Fernando Valley E-W Revised EIR
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 AM Peak - Year 2020 RB3

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

AM PEAK 2020 RB5

Wed Sep 22, 2004 17:35:46

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
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Scenario Report

Scenario: AM PEAK 2020 RB5

Command: AM

Volume: AM PEAK 2020 RB5

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: AM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB5

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L --	T --	R	L --	T --	R	L --	T --	R	L --	T --	R
1 Topanga Canyo	75	948	196	92	1438	638	783	1046	51	211	661	63
2 Topanga Canyo	97	973	183	166	1220	96	103	1282	161	198	734	123
3 Reseda Blvd/	86	888	72	113	966	171	144	1812	78	123	1446	156
4 Sepulveda Blv	233	1197	84	133	892	126	133	1427	109	76	1442	177
5 Sepulveda Blv	398	821	40	218	1357	80	221	3199	1372	336	2031	181
6 Van Nuys Blvd	171	1078	192	117	623	184	102	735	55	175	1009	140
7 Van Nuys Blvd	231	1152	199	130	814	63	120	1303	99	170	1519	77
8 Van Nuys Blvd	93	740	80	54	1354	98	89	1169	270	100	968	149
9 Laurel Canyon	165	451	221	91	537	62	93	980	212	166	1091	61
10 Laurel Canyon	132	523	94	129	550	92	165	1333	260	150	1141	132
11 Lankershim Bl	153	555	47	79	812	88	165	914	248	129	1055	98
12 Lankershim Bl	74	738	0	0	1799	46	0	0	0	0	0	0
13 Lankershim Bl	38	551	56	96	1101	34	323	313	154	45	85	138

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB5

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1	Topanga Canyon Blvd/ Roscoe Bl	C	31.9 0.847	C	31.9 0.847	+ 0.000 D/V
# 2	Topanga Canyon Blvd/ Vicotry B	C	28.6 0.770	C	28.6 0.770	+ 0.000 D/V
# 3	Reseda Blvd/ Victory Blvd	D	39.4 1.561	D	39.4 1.561	+ 0.000 D/V
# 4	Sepulveda Blvd/ Roscoe Blvd	C	25.2 0.676	C	25.2 0.676	+ 0.000 D/V
# 5	Sepulveda Blvd/ Victory Blvd	F	117.6 1.485	F	117.6 1.485	+ 0.000 D/V
# 6	Van Nuys Blvd/ San Fernando Rd	C	32.1 1.312	C	32.1 1.312	+ 0.000 D/V
# 7	Van Nuys Blvd/ Roscoe Blvd	C	26.1 0.682	C	26.1 0.682	+ 0.000 D/V
# 8	Van Nuys Blvd/ Victory Blvd	C	24.1 1.224	C	24.1 1.224	+ 0.000 D/V
# 9	Laurel Canyon Blvd/ Roscoe Blv	B	16.5 0.763	B	16.5 0.763	+ 0.000 D/V
# 10	Laurel Canyon Blvd/ Victory Bl	C	27.8 0.687	C	27.8 0.687	+ 0.000 D/V
# 11	Lankershim Blvd/ Oxnard St	C	31.8 1.245	C	31.8 1.245	+ 0.000 D/V
# 12	Lankershim Blvd/ Chandler Blvd	C	20.7 0.000	C	20.7 0.000	+ 0.000 D/V
# 13	Lankershim Blvd/ Chandler Blvd	B	15.9 0.597	B	15.9 0.597	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB5

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.847
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 31.9
Optimal Cycle: 149 Level Of Service: C

Street Name: Topanga Canyon Blvd Roscoe Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 2 1 0 1 0 2 0 1 2 0 2 1 0

Volume Module:
Base Vol: 75 948 196 92 1438 638 783 1046 51 211 661 63
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 75 948 196 92 1438 638 783 1046 51 211 661 63
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 79 998 206 97 1514 672 824 1101 54 222 696 66
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 79 998 206 97 1514 672 824 1101 54 222 696 66
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 79 998 206 97 1514 672 824 1101 54 222 696 66

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.89 0.89 0.95 0.95 0.85 0.92 0.90 0.90 0.92 0.90 0.90
Lanes: 1.00 2.49 0.51 1.00 2.00 1.00 2.00 2.86 0.14 2.00 2.74 0.26
Final Sat.: 1805 4187 866 1805 3610 1615 3502 4911 239 3502 4674 445

Capacity Analysis Module:
Vol/Sat: 0.04 0.24 0.24 0.05 0.42 0.42 0.24 0.22 0.22 0.06 0.15 0.15
Crit Moves: **** **** **** ****
Green/Cycle: 0.05 0.45 0.45 0.10 0.49 0.49 0.28 0.35 0.35 0.10 0.18 0.18
Volume/Cap: 0.85 0.53 0.53 0.53 0.85 0.84 0.85 0.63 0.63 0.63 0.85 0.85
Delay/Veh: 94.8 20.4 20.4 45.8 26.0 29.8 41.1 27.7 27.7 47.0 47.5 47.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 94.8 20.4 20.4 45.8 26.0 29.8 41.1 27.7 27.7 47.0 47.5 47.5
DesignQueue: 4 33 7 5 47 21 35 42 2 11 33 3

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.770
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 28.6
Optimal Cycle: 99 Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Topanga Canyon Blvd and Victory Blvd with North and South Bound movements.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB5

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.561
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 39.4
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Reseda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 lanes.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 lanes.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 lanes.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB5

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	31.82	31.82	60.18	60.18
Effective Green Time Per Lane Group, g:	35.82	35.82	64.18	64.18
Opposing Effective Green Time, go:	35.82	35.82	64.18	64.18
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	91	119	152	129
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.51	3.30	4.21	3.60
Adjusted Opposing Flow Rate, Vo:	1017	935	1522	1989
Opposing Flow Per Lane Per Cycle, Volc:	14.87	13.67	23.23	19.39
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.64	0.64	0.36	0.36
Eff grn blocked by opposing queue, gq:	27.16	24.15	31.09	22.69
Eff grn while left turns filter thru, gu:	8.66	11.67	33.09	41.49
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.24	0.29	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.55	3.26	6.32	9.53
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.11	0.11	0.06	0.06
Single Lane Left Turn Adjustment Factor, fm:	0.11	0.11	0.08	0.07
Left Turn Adjustment Factor, flt:	0.11	0.11	0.08	0.07

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.676
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.2
Optimal Cycle: 70 Level Of Service: C

Table with columns for Street Name (Sepulveda Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB5

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 2 3 3 2 3 3 2 3 3 2 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxxx 5 5 xxxxx 5 5 xxxxx 5 5 xxxxx 5 5
f(lt) Case: 1 xxxxx xxxxx 1 xxxxx xxxxx 1 xxxxx xxxxx 1 xxxxx xxxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxxx 1.00 1.00 xxxxx 1.00 1.00 xxxxx 1.00 1.00 xxxxx 1.00 1.00
Bus Stp Adj: xxxxx 1.00 1.00 xxxxx 1.00 1.00 xxxxx 1.00 1.00 xxxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxxx 0.99 0.99 xxxxx 0.98 0.98 xxxxx 0.99 0.99 xxxxx 0.98 0.98
LT Adj: 0.95 xxxxx xxxxxx 0.95 xxxxx xxxxxx 0.95 xxxxx xxxxxx 0.95 xxxxx xxxxxx
HCM Sat Adj: 0.95 0.99 0.99 0.95 0.98 0.98 0.95 0.99 0.99 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91
Fnl Sat Adj: 0.92 0.90 0.90 0.92 0.89 0.89 0.92 0.90 0.90 0.92 0.90 0.90

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
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Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.485
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 117.6
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Sepulveda Blvd						Victory Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	3	0	1	1	1	0	3	0	1	1

Volume Module:

Base Vol:	398	821	40	218	1357	80	221	3199	1372	336	2031	181
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	398	821	40	218	1357	80	221	3199	1372	336	2031	181
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	419	864	42	229	1428	84	233	3367	1444	354	2138	191
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	419	864	42	229	1428	84	233	3367	1444	354	2138	191
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	419	864	42	229	1428	84	233	3367	1444	354	2138	191

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.92	0.91	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3502	5187	1615	3502	5187	1615	1805	5187	1615	1805	5187	1615

Capacity Analysis Module:

Vol/Sat:	0.12	0.17	0.03	0.07	0.28	0.05	0.13	0.65	0.89	0.20	0.41	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.08	0.19	0.19	0.08	0.19	0.19	0.17	0.60	0.60	0.13	0.56	0.56
Volume/Cap:	1.49	0.87	0.14	0.87	1.49	0.28	0.74	1.08	1.49	1.49	0.74	0.21
Delay/Veh:	282.4	47.9	33.8	71.6	265	35.5	47.9	61.8	243.8	282.9	17.5	11.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	282.4	47.9	33.8	71.6	265	35.5	47.9	61.8	243.8	282.9	17.5	11.1
DesignQueue:	22	40	2	12	69	4	11	88	40	18	58	5

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1997 HCM Operations Method
Base Volume Alternative

Intersection #5 Sepulveda Blvd/ Victory Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.312
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 32.1
 Optimal Cycle: 180 Level Of Service: C

Street Name:	San Fernando Rd						Van Nuys Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	171	1078	192	117	623	184	102	735	55	175	1009	140
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	171	1078	192	117	623	184	102	735	55	175	1009	140
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	180	1135	202	123	656	194	107	774	58	184	1062	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	1135	202	123	656	194	107	774	58	184	1062	147
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	180	1135	202	123	656	194	107	774	58	184	1062	147

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.24	0.93	0.93	0.10	0.92	0.92	0.09	0.94	0.94	0.20	0.93	0.93
Lanes:	1.00	1.70	0.30	1.00	1.54	0.46	1.00	1.86	0.14	1.00	1.76	0.24
Final Sat.:	455	2994	533	183	2692	795	168	3325	249	388	3113	432

Capacity Analysis Module:

Vol/Sat:	0.40	0.38	0.38	0.67	0.24	0.24	0.64	0.23	0.23	0.48	0.34	0.34	
Crit Moves:				****				****					
Green/Cycle:	0.51	0.51	0.51	0.51	0.51	0.51	0.49	0.49	0.49	0.49	0.49	0.49	
Volume/Cap:	0.77	0.74	0.74	1.31	0.47	0.47	1.31	0.48	0.48	0.98	0.70	0.70	
Delay/Veh:	34.0	20.7	20.7	222.1	15.9	15.9	229.8	17.4	17.4	83.4	21.3	21.3	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	34.0	20.7	20.7	222.1	15.9	15.9	229.8	17.4	17.4	83.4	21.3	21.3	
DesignQueue:	5	34	6	3	19	6	3	23	2	5	33	5	

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 Base Volume Alternative

 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	50.79	50.79	41.21	41.21
Effective Green Time Per Lane Group, g:	54.79	54.79	45.21	45.21
Opposing Effective Green Time, go:	54.79	54.79	45.21	45.21
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	180	123	107	184
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	5.00	3.42	2.98	5.12
Adjusted Opposing Flow Rate, Vo:	849	1337	1209	832
Opposing Flow Per Lane Per Cycle, Volc:	12.41	19.55	17.68	12.16
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.45	0.45	0.55	0.55
Eff grn blocked by opposing queue, gq:	14.93	29.02	29.96	17.62
Eff grn while left turns filter thru, gu:	39.86	25.77	15.25	27.59
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.34	0.04	0.12	0.36
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, el1:	3.04	4.89	4.30	2.99
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.24	0.10	0.09	0.20
Left Turn Adjustment Factor, flt:	0.24	0.10	0.09	0.20

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.682
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 26.1
Optimal Cycle: 72 Level Of Service: C

Table with columns for Street Name (Van Nuys, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.224
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 24.1
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (Van Nuys Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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 Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	45.16	45.16	46.84	46.84
Effective Green Time Per Lane Group, g:	49.16	49.16	50.84	50.84
Opposing Effective Green Time, go:	49.16	49.16	50.84	50.84
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	98	57	94	105
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.72	1.58	2.60	2.92
Adjusted Opposing Flow Rate, Vo:	1528	863	1176	1515
Opposing Flow Per Lane Per Cycle, Volc:	15.55	8.78	11.97	15.42
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.51	0.51	0.49	0.49
Eff grn blocked by opposing queue, gq:	22.94	10.83	15.47	21.91
Eff grn while left turns filter thru, gu:	26.22	38.33	35.37	28.93
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.00	0.34	0.14	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, ell:	6.35	3.17	4.38	6.27
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.08	0.25	0.16	0.09
Left Turn Adjustment Factor, flt:	0.08	0.25	0.16	0.09

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.763
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 61 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Laurel Canyon Blvd and Roscoe Blvd with North, South, East, and West Bound movements.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat for different approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

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Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	35.50	35.50	56.50	56.50
Effective Green Time Per Lane Group, g:	39.50	39.50	60.50	60.50
Opposing Effective Green Time, go:	39.50	39.50	60.50	60.50
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	174	96	98	175
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.82	2.66	2.72	4.85
Adjusted Opposing Flow Rate, Vo:	565	475	1148	1032
Opposing Flow Per Lane Per Cycle, Volc:	8.26	6.94	16.78	15.09
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.61	0.61	0.39	0.39
Eff grn blocked by opposing queue, gq:	11.97	9.76	19.96	17.07
Eff grn while left turns filter thru, gu:	27.53	29.74	40.54	43.43
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.52	0.58	0.16	0.23
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.29	2.10	4.04	3.60
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.10	0.10	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.30	0.36	0.17	0.20
Left Turn Adjustment Factor, flt:	0.30	0.36	0.17	0.20

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.687
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 27.8
Optimal Cycle: 73 Level Of Service: C

Street Name: Laurel Canyon Blvd Victory Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 132 523 94 129 550 92 165 1333 260 150 1141 132
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 132 523 94 129 550 92 165 1333 260 150 1141 132
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 139 551 99 136 579 97 174 1403 274 158 1201 139
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 139 551 99 136 579 97 174 1403 274 158 1201 139
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 139 551 99 136 579 97 174 1403 274 158 1201 139

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.93 0.93 0.95 0.93 0.93 0.95 0.89 0.89 0.95 0.90 0.90
Lanes: 1.00 1.70 0.30 1.00 1.71 0.29 1.00 2.51 0.49 1.00 2.69 0.31
Final Sat.: 1805 2990 537 1805 3028 506 1805 4236 826 1805 4575 529

Capacity Analysis Module:
Vol/Sat: 0.08 0.18 0.18 0.08 0.19 0.19 0.10 0.33 0.33 0.09 0.26 0.26
Crit Moves: **** **** **** ****
Green/Cycle: 0.11 0.28 0.28 0.11 0.28 0.28 0.16 0.48 0.48 0.13 0.45 0.45
Volume/Cap: 0.69 0.66 0.66 0.66 0.69 0.69 0.59 0.69 0.69 0.69 0.59 0.59
Delay/Veh: 52.2 33.8 33.8 50.5 34.2 34.2 41.8 20.9 20.9 50.1 21.2 21.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.2 33.8 33.8 50.5 34.2 34.2 41.8 20.9 20.9 50.1 21.2 21.2
DesignQueue: 7 23 4 7 24 4 8 44 9 8 39 5

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Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 2 2 1 2 2 1 3 3 1 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.98 0.98 xxxx 0.98 0.98 xxxx 0.98 0.98 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxx 0.95 xxxx xxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.98 0.98 0.95 0.98 0.98 0.95 0.98 0.98 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.91 0.91 1.00 0.91 0.91
Fnl Sat Adj: 0.95 0.93 0.93 0.95 0.93 0.93 0.95 0.89 0.89 0.95 0.90 0.90

Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 1.245
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 31.8
 Optimal Cycle: 180 Level Of Service: C

Street Name:	Lankershim Blvd						Oxnard St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	153	555	47	79	812	88	165	914	248	129	1055	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	153	555	47	79	812	88	165	914	248	129	1055	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	161	584	49	83	855	93	174	962	261	136	1111	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	584	49	83	855	93	174	962	261	136	1111	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	161	584	49	83	855	93	174	962	261	136	1111	103

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.16	0.94	0.94	0.29	0.94	0.94	0.13	0.92	0.92	0.12	0.94	0.94
Lanes:	1.00	1.84	0.16	1.00	1.80	0.20	1.00	1.57	0.43	1.00	1.83	0.17
Final Sat.:	310	3288	278	558	3208	348	240	2749	746	235	3260	303

Capacity Analysis Module:

Vol/Sat:	0.52	0.18	0.18	0.15	0.27	0.27	0.72	0.35	0.35	0.58	0.34	0.34
Crit Moves:	****						****					
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.42	0.58	0.58	0.58	0.58	0.58	0.58
Volume/Cap:	1.24	0.43	0.43	0.36	0.64	0.64	1.24	0.60	0.60	0.99	0.59	0.59
Delay/Veh:	188.2	20.8	20.8	20.8	24.0	24.0	177.2	13.9	13.9	94.5	13.7	13.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	188.2	20.8	20.8	20.8	24.0	24.0	177.2	13.9	13.9	94.5	13.7	13.7
DesignQueue:	5	20	2	3	30	3	4	24	7	3	28	3

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB5

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #11 Lankershim Blvd/ Oxnard St

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB5

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	41.24	41.24	50.76	50.76
Effective Green Time Per Lane Group, g:	45.24	45.24	54.76	54.76
Opposing Effective Green Time, go:	45.24	45.24	54.76	54.76
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	161	83	174	136
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.47	2.31	4.82	3.77
Adjusted Opposing Flow Rate, Vo:	947	634	1214	1223
Opposing Flow Per Lane Per Cycle, Volc:	13.85	9.27	17.75	17.88
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.55	0.55	0.45	0.45
Eff grn blocked by opposing queue, gq:	20.97	12.46	24.90	25.18
Eff grn while left turns filter thru, gu:	24.27	32.78	29.86	29.58
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.28	0.48	0.12	0.11
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.29	2.47	4.32	4.36
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.16	0.29	0.13	0.12
Left Turn Adjustment Factor, flt:	0.16	0.29	0.13	0.12

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB5

Level Of Service Computation Report

1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: C[20.7]

Street Name: Lankershim Blvd Chandler Blvd N.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 0 0

Volume Module:

Table with 13 columns and 8 rows: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module:

Table with 13 columns and 2 rows: Critical Gp, FollowUpTim.

Capacity Module:

Table with 13 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with 13 columns and 7 rows: Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB5

Level of Service Detailed Computation Report
 1997 HCM Unsignalized Method
 Base Volume Alternative

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed:	4.00 feet/sec											
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period:	0.25 hour											

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.597
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 36 Level Of Service: B

Street Name: Lankershim Blvd Chandler Blvd S.
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1

Volume Module:
Base Vol: 38 551 56 96 1101 34 323 313 154 45 85 138
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 38 551 56 96 1101 34 323 313 154 45 85 138
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 40 580 59 101 1159 36 340 329 162 47 89 145
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 40 580 59 101 1159 36 340 329 162 47 89 145
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 40 580 59 101 1159 36 340 329 162 47 89 145

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.14 0.94 0.94 0.33 0.95 0.95 0.68 1.00 0.85 0.39 0.95 0.85
Lanes: 1.00 1.82 0.18 1.00 1.94 0.06 1.00 1.00 1.00 1.00 2.00 1.00
Final Sat.: 257 3231 328 625 3488 108 1283 1900 1615 733 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.16 0.18 0.18 0.16 0.33 0.33 0.27 0.17 0.10 0.06 0.02 0.09
Crit Moves: ****
Green/Cycle: 0.56 0.56 0.56 0.56 0.56 0.56 0.44 0.44 0.44 0.44 0.44 0.44
Volume/Cap: 0.28 0.32 0.32 0.29 0.60 0.60 0.60 0.39 0.23 0.15 0.06 0.20
Delay/Veh: 12.7 12.1 12.1 12.2 15.2 15.2 22.8 19.0 17.4 16.7 15.9 17.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.7 12.1 12.1 12.2 15.2 15.2 22.8 19.0 17.4 16.7 15.9 17.1
DesignQueue: 1 15 2 3 31 1 11 11 5 1 3 5

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RB5

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0 2 0 1
Lane Group: L RT RT L RT RT L T R L T R
#LnsInGrps: 1 2 2 1 2 2 1 1 1 1 2 1

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx xxxx 2 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.99 0.99 xxxx 1.00 1.00 xxxx xxxx 0.85 xxxx xxxx 0.85
LT Adj: 0.14 xxxx xxxxxx 0.33 xxxx xxxxxx 0.68 xxxx xxxxxx 0.39 xxxx xxxxxx
HCM Sat Adj: 0.14 0.99 0.99 0.33 1.00 1.00 0.68 1.00 0.85 0.39 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 1.00 1.00 1.00 0.95 1.00
Fnl Sat Adj: 0.14 0.94 0.94 0.33 0.95 0.95 0.68 1.00 0.85 0.39 0.95 0.85

Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RB5

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	51.64	51.64	40.36	40.36
Effective Green Time Per Lane Group, g:	55.64	55.64	44.36	44.36
Opposing Effective Green Time, go:	55.64	55.64	44.36	44.36
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	40	101	340	47
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.11	2.81	9.44	1.32
Adjusted Opposing Flow Rate, Vo:	1195	639	89	329
Opposing Flow Per Lane Per Cycle, Volc:	17.47	9.34	1.24	9.62
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.44	0.44	0.56	0.56
Eff grn blocked by opposing queue, gq:	23.83	10.19	1.41	13.25
Eff grn while left turns filter thru, gu:	31.81	45.45	42.95	31.11
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.13	0.48	0.82	0.67
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	4.24	2.48	1.43	1.82
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.13	0.33	0.68	0.39
Left Turn Adjustment Factor, flt:	0.13	0.33	0.68	0.39

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
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Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

AM PEAK 2020 RBN

Wed Sep 22, 2004 17:36:27

**San Fernando Valley E-W Revised EIR
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San Fernando Valley E-W Revised EIR
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Scenario Report

Scenario: AM PEAK 2020 RBN

Command: AM

Volume: AM PEAK 2020 RBN

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: AM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RBN

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L --	T --	R	L --	T --	R	L --	T --	R	L --	T --	R
1 Topanga Canyo	76	949	196	94	1442	637	797	1072	55	211	664	65
2 Topanga Canyo	99	972	183	167	1224	97	107	1312	165	198	736	123
3 Reseda Blvd/	86	888	73	115	971	172	148	1851	82	124	1443	156
4 Sepulveda Blv	235	1205	87	134	898	128	136	1428	110	78	1444	179
5 Sepulveda Blv	402	831	44	221	1364	83	223	3193	1369	337	2033	184
6 Van Nuys Blvd	172	1086	194	118	630	185	102	739	57	176	1013	141
7 Van Nuys Blvd	234	1160	202	132	820	66	122	1304	102	172	1521	80
8 Van Nuys Blvd	94	746	81	55	1357	100	90	1163	270	100	964	151
9 Laurel Canyon	167	459	222	93	544	64	94	983	212	168	1095	61
10 Laurel Canyon	134	531	97	131	557	94	166	1334	261	152	1145	135
11 Lankershim Bl	154	555	47	79	810	88	164	909	246	129	1051	98
12 Lankershim Bl	67	728	0	0	1788	44	0	0	0	0	0	0
13 Lankershim Bl	36	554	57	85	1103	35	316	313	153	45	85	121

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1	Topanga Canyon Blvd/ Roscoe Bl	C	32.3 0.854	C	32.3 0.854	+ 0.000 D/V
# 2	Topanga Canyon Blvd/ Vicotry B	C	28.8 0.779	C	28.8 0.779	+ 0.000 D/V
# 3	Reseda Blvd/ Victory Blvd	D	39.4 1.590	D	39.4 1.590	+ 0.000 D/V
# 4	Sepulveda Blvd/ Roscoe Blvd	C	25.3 0.681	C	25.3 0.681	+ 0.000 D/V
# 5	Sepulveda Blvd/ Victory Blvd	F	118.1 1.486	F	118.1 1.486	+ 0.000 D/V
# 6	Van Nuys Blvd/ San Fernando Rd	C	32.9 1.326	C	32.9 1.326	+ 0.000 D/V
# 7	Van Nuys Blvd/ Roscoe Blvd	C	26.3 0.686	C	26.3 0.686	+ 0.000 D/V
# 8	Van Nuys Blvd/ Victory Blvd	C	24.2 1.229	C	24.2 1.229	+ 0.000 D/V
# 9	Laurel Canyon Blvd/ Roscoe Blv	B	16.7 0.777	B	16.7 0.777	+ 0.000 D/V
# 10	Laurel Canyon Blvd/ Victory Bl	C	28.1 0.693	C	28.1 0.693	+ 0.000 D/V
# 11	Lankershim Blvd/ Oxnard St	C	31.5 1.236	C	31.5 1.236	+ 0.000 D/V
# 12	Lankershim Blvd/ Chandler Blvd	C	20.0 0.000	C	20.0 0.000	+ 0.000 D/V
# 13	Lankershim Blvd/ Chandler Blvd	B	15.8 0.593	B	15.8 0.593	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.854
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 32.3
Optimal Cycle: 156 Level Of Service: C

Street Name: Topanga Canyon Blvd Roscoe Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 2 1 0 1 0 2 0 1 2 0 2 1 0

Volume Module:
Base Vol: 76 949 196 94 1442 637 797 1072 55 211 664 65
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 76 949 196 94 1442 637 797 1072 55 211 664 65
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 80 999 206 99 1518 671 839 1128 58 222 699 68
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 80 999 206 99 1518 671 839 1128 58 222 699 68
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 80 999 206 99 1518 671 839 1128 58 222 699 68

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.89 0.89 0.95 0.95 0.85 0.92 0.90 0.90 0.92 0.90 0.90
Lanes: 1.00 2.49 0.51 1.00 2.00 1.00 2.00 2.85 0.15 2.00 2.73 0.27
Final Sat.: 1805 4187 865 1805 3610 1615 3502 4899 251 3502 4663 456

Capacity Analysis Module:
Vol/Sat: 0.04 0.24 0.24 0.05 0.42 0.42 0.24 0.23 0.23 0.06 0.15 0.15
Crit Moves: **** **** **** ****
Green/Cycle: 0.05 0.44 0.44 0.10 0.49 0.49 0.28 0.36 0.36 0.10 0.18 0.18
Volume/Cap: 0.85 0.54 0.54 0.54 0.85 0.84 0.85 0.64 0.64 0.64 0.85 0.85
Delay/Veh: 96.3 20.7 20.7 45.9 26.5 30.2 41.4 27.6 27.6 47.5 48.0 48.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 96.3 20.7 20.7 45.9 26.5 30.2 41.4 27.6 27.6 47.5 48.0 48.0
DesignQueue: 4 33 7 5 48 21 36 43 2 11 33 3

San Fernando Valley E-W Revised EIR
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AM Peak - Year 2020 RBN

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

San Fernando Valley E-W Revised EIR
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.779
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 28.8
Optimal Cycle: 103 Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Topanga Canyon Blvd and Victory Blvd with North, South, East, and West bounds.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 lanes.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 lanes.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 lanes.

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Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and rows for HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.590
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 39.4
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Reseda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module:

Table with 13 columns for traffic volume metrics: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol., and three unlabeled columns.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, Final Sat., and three unlabeled columns.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue, and three unlabeled columns.

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Intersection #3 Reseda Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 1 0 1 0 2 0 1
Lane Group: L T R L T R L RT RT L T R
#LnsInGrps: 1 2 1 1 2 1 1 3 3 1 2 1

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx xxxx 2 xxxx xxxx 2 xxxx 5 5 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx 0.99 0.99 xxxx xxxx 0.85
LT Adj: 0.12 xxxx xxxxxx 0.12 xxxx xxxxxx 0.09 xxxx xxxxxx 0.07 xxxx xxxxxx
HCM Sat Adj: 0.12 1.00 0.85 0.12 1.00 0.85 0.09 0.99 0.99 0.07 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.91 0.91 1.00 0.95 1.00
Fnl Sat Adj: 0.12 0.95 0.85 0.12 0.95 0.85 0.09 0.90 0.90 0.07 0.95 0.85

Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	30.34	30.34	61.66	61.66
Effective Green Time Per Lane Group, g:	34.34	34.34	65.66	65.66
Opposing Effective Green Time, go:	34.34	34.34	65.66	65.66
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	91	121	156	131
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.51	3.36	4.33	3.63
Adjusted Opposing Flow Rate, Vo:	1022	935	1519	2035
Opposing Flow Per Lane Per Cycle, Volc:	14.94	13.67	23.18	19.83
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.66	0.66	0.34	0.34
Eff grn blocked by opposing queue, gq:	27.98	24.71	29.69	22.58
Eff grn while left turns filter thru, gu:	6.36	9.63	35.97	43.08
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.24	0.29	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, ell:	3.57	3.26	6.29	9.99
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.12	0.12	0.06	0.06
Single Lane Left Turn Adjustment Factor, fm:	0.12	0.12	0.09	0.07
Left Turn Adjustment Factor, flt:	0.12	0.12	0.09	0.07

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.681
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 71 Level Of Service: C

Street Name: Sepulveda Blvd Roscoe Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0

Table with 12 columns and 12 rows for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. Columns represent different approaches and movements.

Table with 12 columns and 4 rows for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat. Columns represent different approaches and movements.

Table with 12 columns and 10 rows for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue. Columns represent different approaches and movements.

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Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and rows for HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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 Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.486
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 118.1
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Sepulveda Blvd					Victory Blvd									
Approach:	North Bound			South Bound		East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected			Protected		Protected			Protected						
Rights:	Include			Include		Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	2	0	3	0	1	2	0	3	0	1	1	0	3	0	1

Volume Module:

Base Vol:	402	831	44	221	1364	83	223	3193	1369	337	2033	184
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	402	831	44	221	1364	83	223	3193	1369	337	2033	184
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	423	875	46	233	1436	87	235	3361	1441	355	2140	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	423	875	46	233	1436	87	235	3361	1441	355	2140	194
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	423	875	46	233	1436	87	235	3361	1441	355	2140	194

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.92	0.91	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3502	5187	1615	3502	5187	1615	1805	5187	1615	1805	5187	1615

Capacity Analysis Module:

Vol/Sat:	0.12	0.17	0.03	0.07	0.28	0.05	0.13	0.65	0.89	0.20	0.41	0.12
Crit Moves:	****			****					****	****		
Green/Cycle:	0.08	0.19	0.19	0.08	0.19	0.19	0.18	0.60	0.60	0.13	0.56	0.56
Volume/Cap:	1.49	0.88	0.15	0.88	1.49	0.29	0.74	1.08	1.49	1.49	0.74	0.22
Delay/Veh:	282.7	48.3	33.8	72.4	265	35.5	48.1	62.4	244.4	283.3	17.8	11.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	282.7	48.3	33.8	72.4	265	35.5	48.1	62.4	244.4	283.3	17.8	11.3
DesignQueue:	22	41	2	12	70	4	11	88	40	18	58	5

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Intersection #5 Sepulveda Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 3 0 1 1 0 3 0 1
Lane Group: L T R L T R L T R L T R
#LnsInGrps: 2 3 1 2 3 1 1 3 1 1 3 1

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiverT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx xxxx 0.85
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 0.97 0.91 1.00 0.97 0.91 1.00 1.00 0.91 1.00 1.00 0.91 1.00
Fnl Sat Adj: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.91 0.85 0.95 0.91 0.85

Delay Adjustment Factor Module:

Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.326
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include San Fernando Rd and Van Nuys Blvd with North and South Bound movements.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

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 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	50.98	50.98	41.02	41.02
Effective Green Time Per Lane Group, g:	54.98	54.98	45.02	45.02
Opposing Effective Green Time, go:	54.98	54.98	45.02	45.02
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	181	124	107	185
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	5.03	3.45	2.98	5.15
Adjusted Opposing Flow Rate, Vo:	858	1347	1215	838
Opposing Flow Per Lane Per Cycle, Volc:	12.54	19.69	17.76	12.25
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.45	0.45	0.55	0.55
Eff grn blocked by opposing queue, gq:	15.08	29.25	30.29	17.84
Eff grn while left turns filter thru, gu:	39.90	25.73	14.73	27.18
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.34	0.03	0.12	0.35
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.06	4.94	4.33	3.01
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.24	0.09	0.09	0.20
Left Turn Adjustment Factor, flt:	0.24	0.09	0.09	0.20

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Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100
Loss Time (sec): 0 (Y+R = 4 sec)
Optimal Cycle: 73
Critical Vol./Cap. (X): 0.686
Average Delay (sec/veh): 26.3
Level Of Service: C

Table with columns for Street Name (Van Nuys, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.229
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (Van Nuys Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Intersection #8 Van Nuys Blvd/ Victory Blvd

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, and HCM Ops Adjusted Lane Utilization Module.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Lanes, Lane Group, and #LnsInGrps.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops Input Saturation Adj Module, Lane Width, % Hev Veh, Grade, Parking/Hr, Bus Stp/Hr, Area Type, Cnft Ped/Hr, ExclusiverRT, and % RT Prtct.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops f(rt) and f(lt) Adj Case Module, f(rt) Case, and f(lt) Case.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include HCM Ops Saturation Adj Module, Ln Wid Adj, Hev Veh Adj, Grade Adj, Parking Adj, Bus Stp Adj, Area Adj, RT Adj, LT Adj, HCM Sat Adj, Ustr Sat Adj, MLF Sat Adj, and Fnl Sat Adj.

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Delay Adjustment Factor Module, Coordinated, Signal Type, and DelAdjFctr.

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 Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	45.73	45.73	46.27	46.27
Effective Green Time Per Lane Group, g:	49.73	49.73	50.27	50.27
Opposing Effective Green Time, go:	49.73	49.73	50.27	50.27
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	99	58	95	105
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.75	1.61	2.63	2.92
Adjusted Opposing Flow Rate, Vo:	1534	871	1174	1508
Opposing Flow Per Lane Per Cycle, Volc:	15.61	8.86	11.95	15.34
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.50	0.50	0.50	0.50
Eff grn blocked by opposing queue, gq:	22.82	10.83	15.61	22.02
Eff grn while left turns filter thru, gu:	26.91	38.90	34.66	28.25
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.00	0.33	0.14	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	6.40	3.19	4.37	6.22
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.08	0.25	0.16	0.09
Left Turn Adjustment Factor, flt:	0.08	0.25	0.16	0.09

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.777
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 16.7
Optimal Cycle: 65 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Laurel Canyon Blvd and Roscoe Blvd with North, South, East, and West bound movements.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various movement categories.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for different movement types.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue for various movements.

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 Level of Service Calculations
 AM Peak - Year 2020 RBN

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	35.65	35.65	56.35	56.35
Effective Green Time Per Lane Group, g:	39.65	39.65	60.35	60.35
Opposing Effective Green Time, go:	39.65	39.65	60.35	60.35
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	176	98	99	177
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.88	2.72	2.75	4.91
Adjusted Opposing Flow Rate, Vo:	573	483	1153	1035
Opposing Flow Per Lane Per Cycle, Volc:	8.38	7.06	16.86	15.13
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.60	0.60	0.40	0.40
Eff grn blocked by opposing queue, gq:	12.15	9.92	20.17	17.21
Eff grn while left turns filter thru, gu:	27.50	29.73	40.18	43.14
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.52	0.57	0.15	0.23
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.31	2.12	4.07	3.61
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.10	0.10	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.30	0.35	0.16	0.20
Left Turn Adjustment Factor, flt:	0.30	0.35	0.16	0.20

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.693
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 28.1
Optimal Cycle: 74 Level Of Service: C

Street Name: Laurel Canyon Blvd Victory Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 134 531 97 131 557 94 166 1334 261 152 1145 135
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 134 531 97 131 557 94 166 1334 261 152 1145 135
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 141 559 102 138 586 99 175 1404 275 160 1205 142
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 141 559 102 138 586 99 175 1404 275 160 1205 142
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 141 559 102 138 586 99 175 1404 275 160 1205 142

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.93 0.93 0.95 0.93 0.93 0.95 0.89 0.89 0.95 0.90 0.90
Lanes: 1.00 1.69 0.31 1.00 1.71 0.29 1.00 2.51 0.49 1.00 2.68 0.32
Final Sat.: 1805 2982 545 1805 3021 510 1805 4230 828 1805 4566 538

Capacity Analysis Module:
Vol/Sat: 0.08 0.19 0.19 0.08 0.19 0.19 0.10 0.33 0.33 0.09 0.26 0.26
Crit Moves: **** **** **** ****
Green/Cycle: 0.11 0.28 0.28 0.11 0.28 0.28 0.16 0.48 0.48 0.13 0.44 0.44
Volume/Cap: 0.69 0.67 0.67 0.67 0.69 0.69 0.59 0.69 0.69 0.69 0.59 0.59
Delay/Veh: 52.5 33.8 33.8 50.9 34.3 34.3 42.1 21.2 21.2 50.5 21.4 21.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.5 33.8 33.8 50.9 34.3 34.3 42.1 21.2 21.2 50.5 21.4 21.4
DesignQueue: 7 23 4 7 25 4 8 44 9 8 40 5

San Fernando Valley E-W Revised EIR
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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 2 2 1 2 2 1 3 3 1 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.98 0.98 xxxx 0.98 0.98 xxxx 0.98 0.98 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxxxx xxxxxx 0.95 xxxxxx xxxxxx 0.95 xxxxxx xxxxxx
HCM Sat Adj: 0.95 0.98 0.98 0.95 0.98 0.98 0.95 0.98 0.98 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.91 0.91 1.00 0.91 0.91
Fnl Sat Adj: 0.95 0.93 0.93 0.95 0.93 0.93 0.95 0.89 0.89 0.95 0.90 0.90

Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 1.236
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 31.5
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (Lankershim Blvd, Oxnard St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 lanes.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 lanes.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 lanes.

San Fernando Valley E-W Revised EIR
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 AM Peak - Year 2020 RBN

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	41.51	41.51	50.49	50.49
Effective Green Time Per Lane Group, g:	45.51	45.51	54.49	54.49
Opposing Effective Green Time, go:	45.51	45.51	54.49	54.49
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	162	83	173	136
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.50	2.31	4.80	3.77
Adjusted Opposing Flow Rate, Vo:	945	634	1209	1216
Opposing Flow Per Lane Per Cycle, Volc:	13.82	9.27	17.68	17.78
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.54	0.54	0.46	0.46
Eff grn blocked by opposing queue, gq:	20.80	12.40	24.89	25.11
Eff grn while left turns filter thru, gu:	24.71	33.11	29.60	29.38
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.28	0.48	0.12	0.12
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, ell:	3.29	2.47	4.30	4.33
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.17	0.29	0.13	0.12
Left Turn Adjustment Factor, flt:	0.17	0.29	0.13	0.12

San Fernando Valley E-W Revised EIR
Level of Service Calculations
AM Peak - Year 2020 RBN

Level Of Service Computation Report

1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C [20.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include Lankershim Blvd and Chandler Blvd N. with details on North/South/East/West Bound movements and lane configurations.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol. across various movement categories.

Critical Gap Module table showing Critical Gap and FollowUpTim values for different movements.

Capacity Module table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for various movements.

Level Of Service Module table showing Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS for different movements.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 AM Peak - Year 2020 RBN

Level Of Service Detailed Computation Report
 1997 HCM Unsignalized Method
 Base Volume Alternative

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed:	4.00 feet/sec											
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period:	0.25 hour											

San Fernando Valley E-W Revised EIR
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.593
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 35 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Lankershim Blvd and Chandler Blvd S. with North, South, East, and West Bound movements.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

San Fernando Valley E-W Revised EIR
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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	52.24	52.24	39.76	39.76
Effective Green Time Per Lane Group, g:	56.24	56.24	43.76	43.76
Opposing Effective Green Time, go:	56.24	56.24	43.76	43.76
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	38	89	333	47
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.05	2.49	9.24	1.32
Adjusted Opposing Flow Rate, Vo:	1198	643	89	329
Opposing Flow Per Lane Per Cycle, Volc:	17.51	9.40	1.24	9.62
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.44	0.44	0.56	0.56
Eff grn blocked by opposing queue, gq:	23.59	10.13	1.43	13.40
Eff grn while left turns filter thru, gu:	32.65	46.11	42.33	30.36
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.13	0.47	0.82	0.67
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, ell:	4.25	2.49	1.43	1.82
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.09	0.09
Single Lane Left Turn Adjustment Factor, fm:	0.14	0.33	0.67	0.38
Left Turn Adjustment Factor, flt:	0.14	0.33	0.67	0.38

 San Fernando Valley E-W Revised EIR
 Level of Service Calculations
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 Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)					
Node Intersection	NB	SB	EB	WB	
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100	
2 Topanga Canyon Blvd/ Victory Blvd	102100	102010	202100	202010	
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010	
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100	
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010	
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100	
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100	
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100	
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010	
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100	
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100	
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000	
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010	

PM PEAK 2020 Base

Wed Sep 22, 2004 17:34:14

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 Base

Scenario Report

Scenario: PM PEAK 2020 Base

Command: PM

Volume: PM PEAK 2020 Base

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: PM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 Base

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L --	T --	R	L --	T --	R	L --	T --	R	L --	T --	R
1 Topanga Canyo	101	1560	251	124	1327	610	898	1295	66	348	792	124
2 Topanga Canyo	201	1614	256	207	1174	126	221	1034	213	396	1228	280
3 Reseda Blvd/	167	1288	137	139	1041	159	168	1978	128	146	1671	188
4 Sepulveda Blv	460	1859	137	375	1036	280	366	1943	374	204	1707	322
5 Sepulveda Blv	701	1786	167	230	867	179	289	2549	594	107	2702	245
6 Van Nuys Blvd	78	676	146	148	698	128	103	493	39	131	1012	234
7 Van Nuys Blvd	510	1467	385	386	931	104	386	1685	370	421	1852	277
8 Van Nuys Blvd	186	1560	203	94	1465	52	99	2070	185	110	1537	195
9 Laurel Canyon	222	1137	172	161	668	130	192	735	213	102	1348	232
10 Laurel Canyon	406	1039	10	184	767	251	305	1733	325	189	1859	270
11 Lankershim Bl	211	886	103	165	748	138	251	1182	201	142	922	173
12 Lankershim Bl	87	1271	0	0	739	14	0	0	0	0	0	0
13 Lankershim Bl	52	1058	29	87	762	30	223	206	120	38	156	133

San Fernando Valley E-W Revised EIR
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Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		LOS	Del/ Veh	Del/ Veh	V/ C	
# 1	Topanga Canyon Blvd/ Roscoe Bl	D	39.7	39.7	0.916	+ 0.000 D/V
# 2	Topanga Canyon Blvd/ Vicotry B	D	40.2	40.2	0.933	+ 0.000 D/V
# 3	Reseda Blvd/ Victory Blvd	E	71.3	71.3	2.321	+ 0.000 D/V
# 4	Sepulveda Blvd/ Roscoe Blvd	E	65.8	65.8	1.065	+ 0.000 D/V
# 5	Sepulveda Blvd/ Victory Blvd	E	73.8	73.8	1.148	+ 0.000 D/V
# 6	Van Nuys Blvd/ San Fernando Rd	C	25.2	25.2	1.033	+ 0.000 D/V
# 7	Van Nuys Blvd/ Roscoe Blvd	E	68.2	68.2	1.059	+ 0.000 D/V
# 8	Van Nuys Blvd/ Victory Blvd	E	78.7	78.7	1.526	+ 0.000 D/V
# 9	Laurel Canyon Blvd/ Roscoe Blv	E	62.1	62.1	2.221	+ 0.000 D/V
# 10	Laurel Canyon Blvd/ Victory Bl	F	87.6	87.6	1.163	+ 0.000 D/V
# 11	Lankershim Blvd/ Oxnard St	E	72.0	72.0	1.718	+ 0.000 D/V
# 12	Lankershim Blvd/ Chandler Blvd	A	9.8	9.8	0.000	+ 0.000 D/V
# 13	Lankershim Blvd/ Chandler Blvd	B	14.1	14.1	0.524	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 Base

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.916
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 39.7
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Topanga Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and Min. Green (0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 lanes.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 lanes.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 lanes.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 Base

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.933
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 40.2
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Topanga Canyon Blvd and Victory Blvd with North and South Bound approaches.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various lanes.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for different approaches.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

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Level Of Service Detailed Computation Report
 1997 HCM Operations Method
 Base Volume Alternative

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

HCM Ops Adjusted Lane Utilization Module:

Lanes:	1	0	2	1	0	1	0	2	0	1	2	0	2	1	0	2	0	2	0	1
Lane Group:	L	RT	RT	L	T	R	L	RT	RT	L	T	R								
#LnsInGrps:	1	3	3	1	2	1	2	3	3	2	2	1								

HCM Ops Input Saturation Adj Module:

Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12									
% Hev Veh:		0			0			0			0										
Grade:		0%			0%			0%			0%										
Parking/Hr:		No			No			No			No										
Bus Stp/Hr:		0			0			0			0										
Area Type:	<	<	<	<	<	<	<	<	<	<	Other	>	>	>	>	>	>	>	>	>	>
Cnft Ped/Hr:		0			0			0			0										
ExclusiveRT:		Include			Include			Include			Include										
% RT Prtct:		0			0			0			0										

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case:	xxxx	5	5	xxxx	xxxx	2	xxxx	5	5	xxxx	xxxx	2
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Parking Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00



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Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.321
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 71.3
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Reseda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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 Level of Service Calculations
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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	36.90	36.90	55.10	55.10
Effective Green Time Per Lane Group, g:	40.90	40.90	59.10	59.10
Opposing Effective Green Time, go:	40.90	40.90	59.10	59.10
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	176	146	177	154
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.88	4.06	4.91	4.27
Adjusted Opposing Flow Rate, Vo:	1096	1356	1759	2217
Opposing Flow Per Lane Per Cycle, Volc:	16.02	19.82	26.85	21.61
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.59	0.59	0.41	0.41
Eff grn blocked by opposing queue, gq:	27.87	38.83	47.43	31.13
Eff grn while left turns filter thru, gu:	13.03	2.07	11.67	27.97
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.19	0.03	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.84	4.98	8.14	12.08
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.10	0.10	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.10	0.10	0.07	0.07
Left Turn Adjustment Factor, flt:	0.10	0.10	0.07	0.07

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.065
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 65.8
Optimal Cycle: 180 Level Of Service: E

Street Name: Sepulveda Blvd Roscoe Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0

Volume Module:
Base Vol: 460 1859 137 375 1036 280 366 1943 374 204 1707 322
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 460 1859 137 375 1036 280 366 1943 374 204 1707 322
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 484 1957 144 395 1091 295 385 2045 394 215 1797 339
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 484 1957 144 395 1091 295 385 2045 394 215 1797 339
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 484 1957 144 395 1091 295 385 2045 394 215 1797 339

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.90 0.90 0.92 0.88 0.88 0.92 0.89 0.89 0.92 0.89 0.89
Lanes: 2.00 2.79 0.21 2.00 2.36 0.64 2.00 2.52 0.48 2.00 2.52 0.48
Final Sat.: 3502 4783 352 3502 3953 1068 3502 4245 817 3502 4259 803

Capacity Analysis Module:
Vol/Sat: 0.14 0.41 0.41 0.11 0.28 0.28 0.11 0.48 0.48 0.06 0.42 0.42
Crit Moves: ****
Green/Cycle: 0.16 0.38 0.38 0.11 0.33 0.33 0.11 0.45 0.45 0.06 0.40 0.40
Volume/Cap: 0.85 1.06 1.06 1.06 0.85 0.85 1.04 1.06 1.06 1.06 1.04 1.04
Delay/Veh: 51.7 70.9 70.9 109.7 35.6 35.6 103.2 66.3 66.3 128.8 62.0 62.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 51.7 70.9 70.9 109.7 35.6 35.6 103.2 66.3 66.3 128.8 62.0 62.0
DesignQueue: 23 74 5 20 44 12 20 70 14 11 66 12

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Level of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.148
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 73.8
 Optimal Cycle: 180 Level Of Service: E

Street Name:	Sepulveda Blvd					Victory Blvd									
	North Bound			South Bound		East Bound			West Bound						
Approach:															
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected			Protected		Protected			Protected						
Rights:	Include			Include		Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	2	0	3	0	1	2	0	3	0	1	1	0	3	0	1
Volume Module:															

Base Vol: 701 1786 167 230 867 179 289 2549 594 107 2702 245

Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	701	1786	167	230	867	179	289	2549	594	107	2702	245
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	738	1880	176	242	913	188	304	2683	625	113	2844	258
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	738	1880	176	242	913	188	304	2683	625	113	2844	258
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	738	1880	176	242	913	188	304	2683	625	113	2844	258

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.92	0.91	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3502	5187	1615	3502	5187	1615	1805	5187	1615	1805	5187	1615

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Capacity Analysis Module:

Vol/Sat:	0.21	0.36	0.11	0.07	0.18	0.12	0.17	0.52	0.39	0.06	0.55	0.16
Crit Moves:		****		****			****				****	
Green/Cycle:	0.20	0.32	0.32	0.06	0.17	0.17	0.15	0.56	0.56	0.07	0.48	0.48
Volume/Cap:	1.03	1.15	0.34	1.15	1.03	0.68	1.15	0.93	0.70	0.93	1.15	0.33
Delay/Veh:	81.0	109	26.7	154.7	79.3	45.7	144.1	26.4	18.4	106.2	98.1	16.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	81.0	109	26.7	154.7	79.3	45.7	144.1	26.4	18.4	106.2	98.1	16.5
DesignQueue:	34	78	7	13	44	9	15	75	17	6	95	8

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #5 Sepulveda Blvd/ Victory Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.033
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.2
Optimal Cycle: 180 Level Of Service: C

Street Name: San Fernando Rd Van Nuys Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol: 78 676 146 148 698 128 103 493 39 131 1012 234
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 78 676 146 148 698 128 103 493 39 131 1012 234
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 82 712 154 156 735 135 108 519 41 138 1065 246
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 82 712 154 156 735 135 108 519 41 138 1065 246
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 82 712 154 156 735 135 108 519 41 138 1065 246

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.23 0.92 0.92 0.23 0.93 0.93 0.08 0.94 0.94 0.34 0.92 0.92
Lanes: 1.00 1.64 0.36 1.00 1.69 0.31 1.00 1.85 0.15 1.00 1.62 0.38
Final Sat.: 429 2889 624 431 2980 547 161 3309 262 651 2850 659

Capacity Analysis Module:
Vol/Sat: 0.19 0.25 0.25 0.36 0.25 0.25 0.67 0.16 0.16 0.21 0.37 0.37
Crit Moves: ****
Green/Cycle: 0.35 0.35 0.35 0.35 0.35 0.35 0.65 0.65 0.65 0.65 0.65 0.65
Volume/Cap: 0.55 0.70 0.70 1.03 0.71 0.71 1.03 0.24 0.24 0.33 0.57 0.57
Delay/Veh: 30.4 29.9 29.9 114.9 29.9 29.9 114.6 7.3 7.3 8.2 10.1 10.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 30.4 29.9 29.9 114.9 29.9 29.9 114.6 7.3 7.3 8.2 10.1 10.1
DesignQueue: 3 27 6 6 28 5 2 10 1 3 23 5

DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	48.90	48.90	43.10	43.10
Effective Green Time Per Lane Group, g:	52.90	52.90	47.10	47.10
Opposing Effective Green Time, go:	52.90	52.90	47.10	47.10
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	82	156	108	138
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.28	4.33	3.01	3.83
Adjusted Opposing Flow Rate, Vo:	869	865	1312	560
Opposing Flow Per Lane Per Cycle, Volc:	12.70	12.65	19.18	8.19
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.47	0.47	0.53	0.53
Eff grn blocked by opposing queue, gq:	16.04	15.95	32.92	10.36
Eff grn while left turns filter thru, gu:	36.86	36.95	14.18	36.74
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.33	0.33	0.06	0.53
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.09	3.08	4.77	2.28
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.23	0.23	0.08	0.34
Left Turn Adjustment Factor, flt:	0.23	0.23	0.08	0.34

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 1997 HCM Operations Method (Base Volume Alternative)

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec):	100	Critical Vol./Cap. (X):	1.059
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	68.2
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Van Nuys	Roscoe Blvd		
Approach:	North Bound	South Bound	East Bound	West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	2	0	2	1	0	2	0	2	1	0	2	0	2	1	0
Volume Module:															
Base Vol:	510	1467	385	386	931	104	386	1685	370	421	1852	277			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	510	1467	385	386	931	104	386	1685	370	421	1852	277			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	537	1544	405	406	980	109	406	1774	389	443	1949	292			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	537	1544	405	406	980	109	406	1774	389	443	1949	292			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Final Vol.:	537	1544	405	406	980	109	406	1774	389	443	1949	292			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	0.88	0.88	0.92	0.90	0.90	0.92	0.89	0.89	0.92	0.89	0.89			
Lanes:	2.00	2.38	0.62	2.00	2.70	0.30	2.00	2.46	0.54	2.00	2.61	0.39			
Final Sat.:	3502	3981	1045	3502	4596	513	3502	4138	909	3502	4426	662			
Capacity Analysis Module:															
Vol/Sat:	0.15	0.39	0.39	0.12	0.21	0.21	0.12	0.43	0.43	0.13	0.44	0.44			
Crit Moves:	****			****			****			****					
Green/Cycle:	0.20	0.37	0.37	0.11	0.28	0.28	0.11	0.40	0.40	0.12	0.41	0.41			
Volume/Cap:	0.77	1.06	1.06	1.06	0.77	0.77	1.06	1.06	1.06	1.06	1.06	1.06			
Delay/Veh:	43.2	70.3	70.3	106.9	35.9	35.9	107.8	67.5	67.5	104.5	67.6	67.6			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	43.2	70.3	70.3	106.9	35.9	35.9	107.8	67.5	67.5	104.5	67.6	67.6			
DesignQueue:	25	60	16	21	41	5	21	65	14	22	71	11			

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Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 2 3 3 2 3 3 2 3 3 2 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.97 0.97 xxxx 0.99 0.99 xxxx 0.97 0.97 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxx 0.95 xxxx xxxxx 0.95 xxxx xxxxx 0.95 xxxx xxxxx
HCM Sat Adj: 0.95 0.97 0.97 0.95 0.99 0.99 0.95 0.97 0.97 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91
Fnl Sat Adj: 0.92 0.88 0.88 0.92 0.90 0.90 0.92 0.89 0.89 0.92 0.89 0.89

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < Actuated > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 Base

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.526
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 78.7
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Van Nuys Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 Base

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	59.72	59.72	32.28	32.28
Effective Green Time Per Lane Group, g:	63.72	63.72	36.28	36.28
Opposing Effective Green Time, go:	63.72	63.72	36.28	36.28
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	196	99	104	116
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	5.44	2.75	2.89	3.22
Adjusted Opposing Flow Rate, Vo:	1597	1856	1823	2374
Opposing Flow Per Lane Per Cycle, Volc:	16.25	18.88	18.55	24.16
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.36	0.36	0.64	0.64
Eff grn blocked by opposing queue, gq:	17.47	22.02	36.28	36.28
Eff grn while left turns filter thru, gu:	46.25	41.70	0.00	0.00
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.00	0.00	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	6.84	9.04	8.71	15.89
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.06	0.06	0.11	0.11
Single Lane Left Turn Adjustment Factor, fm:	0.11	0.07	0.11	0.11
Left Turn Adjustment Factor, flt:	0.11	0.07	0.11	0.11

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.221
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 62.1
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Laurel Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Min. Green (0).

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various approaches.

Table for Saturation Flow Module showing Sat/Lane, Adjustment, Lanes, and Final Sat across various approaches.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 Base

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 Base

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	39.67	39.67	52.33	52.33
Effective Green Time Per Lane Group, g:	43.67	43.67	56.33	56.33
Opposing Effective Green Time, go:	43.67	43.67	56.33	56.33
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	234	169	202	107
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	6.49	4.71	5.61	2.98
Adjusted Opposing Flow Rate, Vo:	703	1197	1419	774
Opposing Flow Per Lane Per Cycle, Volc:	10.28	17.50	20.75	11.32
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.56	0.56	0.44	0.44
Eff grn blocked by opposing queue, gq:	14.57	30.33	30.97	12.77
Eff grn while left turns filter thru, gu:	29.10	13.34	25.36	43.56
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.44	0.13	0.00	0.39
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.65	4.25	5.31	2.84
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.25	0.09	0.08	0.27
Left Turn Adjustment Factor, flt:	0.25	0.09	0.08	0.27

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.163
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 87.6
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Laurel Canyon Blvd and Victory Blvd with North, South, East, and West bounds.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various intersection metrics.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across various intersection metrics.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various intersection metrics.

Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 72.0

Optimal Cycle: 180 Level Of Service: E

Street Name:	Lankershim Blvd						Oxnard St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	1	0	1	0	1	1	0	1
Volume Module:												
Base Vol:	211	886	103	165	748	138	251	1182	201	142	922	173
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	211	886	103	165	748	138	251	1182	201	142	922	173
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	222	933	108	174	787	145	264	1244	212	149	971	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	222	933	108	174	787	145	264	1244	212	149	971	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	222	933	108	174	787	145	264	1244	212	149	971	182
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.18	0.93	0.93	0.15	0.93	0.93	0.13	0.93	0.93	0.08	0.93	0.93
Lanes:	1.00	1.79	0.21	1.00	1.69	0.31	1.00	1.71	0.29	1.00	1.68	0.32
Final Sat.:	351	3182	370	280	2978	549	243	3017	513	148	2967	557
Capacity Analysis Module:												
Vol/Sat:	0.63	0.29	0.29	0.62	0.26	0.26	1.09	0.41	0.41	1.01	0.33	0.33
Crit Moves:	****			****			****			****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.63	0.63	0.63	0.63	0.63	0.63
Volume/Cap:	1.72	0.80	0.80	1.69	0.72	0.72	1.72	0.65	0.65	1.60	0.52	0.52
Delay/Veh:	385.2	31.8	31.8	378.9	29.1	29.1	367.5	12.2	12.2	333.2	10.3	10.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	385.2	31.8	31.8	378.9	29.1	29.1	367.5	12.2	12.2	333.2	10.3	10.3
DesignQueue:	8	35	4	6	30	5	6	28	5	3	22	4

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	44.52	44.52	47.48	47.48
Effective Green Time Per Lane Group, g:	48.52	48.52	51.48	51.48
Opposing Effective Green Time, go:	48.52	48.52	51.48	51.48
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	222	174	264	149
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	6.17	4.82	7.34	4.15
Adjusted Opposing Flow Rate, Vo:	933	1041	1153	1456
Opposing Flow Per Lane Per Cycle, Volc:	13.64	15.22	16.86	21.29
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.51	0.51	0.49	0.49
Eff grn blocked by opposing queue, gq:	19.31	22.53	24.68	35.97
Eff grn while left turns filter thru, gu:	29.21	25.99	26.80	15.51
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.29	0.22	0.15	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.26	3.64	4.07	5.52
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.18	0.15	0.13	0.08
Left Turn Adjustment Factor, flt:	0.18	0.15	0.13	0.08

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Level of Service Computation Report

1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: A[9.8]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include Lankershim Blvd and Chandler Blvd N. with various movement types (L, T, R) and control types (Uncontrolled, Stop Sign).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol across different approaches and movements.

Critical Gap Module table showing Critical Gp and FollowUpTim values for various movements.

Capacity Module table showing Cnflict Vol, Potent Cap., Move Cap., and Volume/Cap. ratios for different movements.

Level of Service Module table showing Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS for various movements.

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Level of Service Detailed Computation Report
 1997 HCM Unsignalized Method
 Base Volume Alternative

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed:	4.00 feet/sec											
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period:	0.25 hour											

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Level of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.524
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 14.1
 Optimal Cycle: 30 Level Of Service: B

Street Name:	Lankershim Blvd						Chandler Blvd S.									
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Permitted			Permitted						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Lanes:	1	0	1	1	0	1	1	0	1	0	1	1	0	2	0	1

Volume Module:

Base Vol:	52	1058	29	87	762	30	223	206	120	38	156	133
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	1058	29	87	762	30	223	206	120	38	156	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	55	1114	31	92	802	32	235	217	126	40	164	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	1114	31	92	802	32	235	217	126	40	164	140
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	1114	31	92	802	32	235	217	126	40	164	140

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment:	0.26	0.95	0.95	0.17	0.94	0.94	0.60	1.00	0.85	0.47	0.95	0.85
Lanes:	1.00	1.95	0.05	1.00	1.92	0.08	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	502	3500	96	317	3452	136	1138	1900	1615	897	3610	1615
----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.11	0.32	0.32	0.29	0.23	0.23	0.21	0.11	0.08	0.04	0.05	0.09
Crit Moves:	****						****					
Green/Cycle:	0.61	0.61	0.61	0.61	0.61	0.61	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.18	0.52	0.52	0.48	0.38	0.38	0.52	0.29	0.20	0.11	0.12	0.22
Delay/Veh:	9.0	11.6	11.6	12.7	10.2	10.2	24.3	21.0	20.1	19.4	19.3	20.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.0	11.6	11.6	12.7	10.2	10.2	24.3	21.0	20.1	19.4	19.3	20.3
DesignQueue:	1	26	1	2	19	1	8	8	4	1	6	5

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	56.68	56.68	35.32	35.32
Effective Green Time Per Lane Group, g:	60.68	60.68	39.32	39.32
Opposing Effective Green Time, go:	60.68	60.68	39.32	39.32
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	55	92	235	40
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.52	2.54	6.52	1.11
Adjusted Opposing Flow Rate, Vo:	834	1144	164	217
Opposing Flow Per Lane Per Cycle, Volc:	12.19	16.73	2.28	6.35
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.39	0.39	0.61	0.61
Eff grn blocked by opposing queue, gq:	12.68	19.76	2.90	8.82
Eff grn while left turns filter thru, gu:	48.00	40.92	36.42	30.50
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.35	0.16	0.77	0.74
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.99	4.03	1.55	1.64
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.10	0.10
Single Lane Left Turn Adjustment Factor, fm:	0.26	0.17	0.60	0.47
Left Turn Adjustment Factor, flt:	0.26	0.17	0.60	0.47

 San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 Base

 Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

AM PEAK 2020 RB3

Wed Sep 22, 2004 17:35:15

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Scenario Report

Scenario: PM PEAK 2020 RB3

Command: PM

Volume: PM PEAK 2020 RB3

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: PM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB3

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Topanga Canyo	101	1560	251	124	1325	609	891	1286	66	344	784	122
2 Topanga Canyo	203	1628	258	209	1187	128	221	1029	214	394	1218	280
3 Reseda Blvd/	167	1288	137	138	1040	159	167	1964	128	145	1653	186
4 Sepulveda Blv	458	1852	137	372	1027	278	365	1935	373	202	1689	319
5 Sepulveda Blv	698	1779	166	228	859	178	288	2539	592	106	2674	243
6 Van Nuys Blvd	78	674	145	147	692	127	103	491	39	130	1002	232
7 Van Nuys Blvd	508	1461	383	382	923	103	384	1678	369	416	1833	274
8 Van Nuys Blvd	186	1554	202	93	1453	52	99	2061	184	109	1521	193
9 Laurel Canyon	221	1133	171	159	663	129	192	732	212	101	1334	229
10 Laurel Canyon	404	1035	10	183	760	249	304	1726	324	187	1840	267
11 Lankershim Bl	213	904	104	164	763	137	250	1177	202	143	912	172
12 Lankershim Bl	94	1307	0	0	773	15	0	0	0	0	0	0
13 Lankershim Bl	53	1065	40	114	766	33	232	213	144	48	157	140

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB3

Impact Analysis Report
 Level Of Service

Intersection	Base LOS	Del/ Veh	V/ C	Future LOS	Del/ Veh	V/ C	Change in
# 1 Topanga Canyon Blvd/ Roscoe Bl	D	39.2	0.911	D	39.2	0.911	+ 0.000 D/V
# 2 Topanga Canyon Blvd/ Vicotry B	D	40.4	0.934	D	40.4	0.934	+ 0.000 D/V
# 3 Reseda Blvd/ Victory Blvd	E	70.5	2.305	E	70.5	2.305	+ 0.000 D/V
# 4 Sepulveda Blvd/ Roscoe Blvd	E	64.1	1.060	E	64.1	1.060	+ 0.000 D/V
# 5 Sepulveda Blvd/ Victory Blvd	E	71.6	1.140	E	71.6	1.140	+ 0.000 D/V
# 6 Van Nuys Blvd/ San Fernando Rd	C	25.2	1.029	C	25.2	1.029	+ 0.000 D/V
# 7 Van Nuys Blvd/ Roscoe Blvd	E	66.1	1.053	E	66.1	1.053	+ 0.000 D/V
# 8 Van Nuys Blvd/ Victory Blvd	E	74.7	1.508	E	74.7	1.508	+ 0.000 D/V
# 9 Laurel Canyon Blvd/ Roscoe Blv	E	61.1	2.205	E	61.1	2.205	+ 0.000 D/V
# 10 Laurel Canyon Blvd/ Victory Bl	F	85.2	1.154	F	85.2	1.154	+ 0.000 D/V
# 11 Lankershim Blvd/ Oxnard St	E	72.0	1.710	E	72.0	1.710	+ 0.000 D/V
# 12 Lankershim Blvd/ Chandler Blvd	B	10.1	0.000	B	10.1	0.000	+ 0.000 D/V
# 13 Lankershim Blvd/ Chandler Blvd	B	14.2	0.588	B	14.2	0.588	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.911
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Topanga Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module:

Table showing traffic volume calculations including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table showing saturation flow calculations including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table showing capacity analysis calculations including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.934
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 40.4
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Topanga Canyon Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and Lanes (1, 0, 2, 1, 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB3

Level of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.305
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 70.5
 Optimal Cycle: 180 Level Of Service: E

Street Name:	Reseda Blvd					Victory Blvd						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	1	0	2	1	0	2

Volume Module:	Reseda Blvd			Victory Blvd		
Base Vol:	167	1288	137	138	1040	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	167	1288	137	138	1040	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	176	1356	144	145	1095	167
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	176	1356	144	145	1095	167
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	176	1356	144	145	1095	167

Saturation Flow Module:	Reseda Blvd			Victory Blvd		
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.10	0.95	0.85	0.10	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	186	3610	1615	186	3610	1615

Capacity Analysis Module:	Reseda Blvd			Victory Blvd		
Vol/Sat:	0.94	0.38	0.09	0.78	0.30	0.10
Crit Moves:	****			****		
Green/Cycle:	0.41	0.41	0.41	0.41	0.41	0.41
Volume/Cap:	2.30	0.92	0.22	1.90	0.74	0.25
Delay/Veh:	655.7	37.2	19.3	481.3	27.0	19.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	655.7	37.2	19.3	481.3	27.0	19.6
DesignQueue:	6	49	5	5	39	6

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #3 Reseda Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 1 0 1 0 2 0 1
Lane Group: L T R L T R L RT RT L T R
#LnsInGrps: 1 2 1 1 2 1 1 3 3 1 2 1

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx xxxx 2 xxxx xxxx 2 xxxx 5 5 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx 0.99 0.99 xxxx xxxx 0.85
LT Adj: 0.10 xxxx xxxxxx 0.10 xxxx xxxxxx 0.07 xxxx xxxxxx 0.07 xxxx xxxxxx
HCM Sat Adj: 0.10 1.00 0.85 0.10 1.00 0.85 0.07 0.99 0.99 0.07 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.91 0.91 1.00 0.95 1.00
Fnl Sat Adj: 0.10 0.95 0.85 0.10 0.95 0.85 0.07 0.90 0.90 0.07 0.95 0.85

Delay Adjustment Factor Module:

Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB3

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	36.83	36.83	55.17	55.17
Effective Green Time Per Lane Group, g:	40.83	40.83	59.17	59.17
Opposing Effective Green Time, go:	40.83	40.83	59.17	59.17
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	176	145	176	153
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	XXXXXX	XXXXXX	XXXXXX	XXXXXX
Left Turns Per Cycle, LTC:	4.88	4.04	4.88	4.24
Adjusted Opposing Flow Rate, Vo:	1095	1356	1740	2202
Opposing Flow Per Lane Per Cycle, Volc:	16.01	19.82	26.56	21.46
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.59	0.59	0.41	0.41
Eff grn blocked by opposing queue, gq:	27.87	38.87	46.25	30.71
Eff grn while left turns filter thru, gu:	12.96	1.96	12.92	28.46
Max opposing cars arriving during gq-gf, n:	XXXXXX	XXXXXX	XXXXXX	XXXXXX
Proportion of Opposing Thru & RT cars, ptho:	XXXXXX	XXXXXX	XXXXXX	XXXXXX
Left-turn Saturation Factor, fs:	0.19	0.03	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.84	4.98	7.97	11.89
Single Lane Through-car Equivalent, el2:	XXXXXX	XXXXXX	XXXXXX	XXXXXX
Minimum Left Turn Adjustment Factor, fmin:	0.10	0.10	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.10	0.10	0.07	0.07
Left Turn Adjustment Factor, flt:	0.10	0.10	0.07	0.07

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.060
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 64.1
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Sepulveda Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 2 3 3 2 3 3 2 3 3 2 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.99 0.99 xxxx 0.97 0.97 xxxx 0.98 0.98 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.99 0.99 0.95 0.97 0.97 0.95 0.98 0.98 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91
Fnl Sat Adj: 0.92 0.90 0.90 0.92 0.88 0.88 0.92 0.89 0.89 0.92 0.89 0.89

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.140
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 71.6
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Sepulveda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.029
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.2
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (San Fernando Rd, Van Nuys Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Min. Green (0).

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various approaches.

Table for Saturation Flow Module showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB3

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB3

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	48.91	48.91	43.09	43.09
Effective Green Time Per Lane Group, g:	52.91	52.91	47.09	47.09
Opposing Effective Green Time, go:	52.91	52.91	47.09	47.09
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	82	155	108	137
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.28	4.30	3.01	3.80
Adjusted Opposing Flow Rate, Vo:	862	862	1299	558
Opposing Flow Per Lane Per Cycle, Volc:	12.60	12.60	18.99	8.16
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.47	0.47	0.53	0.53
Eff grn blocked by opposing queue, gq:	15.87	15.87	32.41	10.32
Eff grn while left turns filter thru, gu:	37.04	37.04	14.68	36.77
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.34	0.34	0.06	0.53
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.07	3.07	4.70	2.27
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.23	0.23	0.08	0.34
Left Turn Adjustment Factor, flt:	0.23	0.23	0.08	0.34

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.053
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 66.1
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Van Nuys, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across various approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various approaches.

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Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.508
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 74.7
 Optimal Cycle: 180 Level Of Service: E

Street Name:	Van Nuys Blvd						Victory Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	1	0	2	1	0	2	1	0	2

Volume Module:	Van Nuys Blvd			Van Nuys Blvd			Victory Blvd			Victory Blvd		
Base Vol:	186	1554	202	93	1453	52	99	2061	184	109	1521	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	186	1554	202	93	1453	52	99	2061	184	109	1521	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	196	1636	213	98	1529	55	104	2169	194	115	1601	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	1636	213	98	1529	55	104	2169	194	115	1601	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	196	1636	213	98	1529	55	104	2169	194	115	1601	203

Saturation Flow Module:	Van Nuys Blvd			Van Nuys Blvd			Victory Blvd			Victory Blvd		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.11	0.89	0.89	0.07	0.91	0.91	0.11	0.90	0.90	0.11	0.89	0.89
Lanes:	1.00	2.65	0.35	1.00	2.90	0.10	1.00	2.75	0.25	1.00	2.66	0.34
Final Sat.:	205	4512	587	139	4983	178	207	4705	420	207	4525	574

Capacity Analysis Module:	Van Nuys Blvd			Van Nuys Blvd			Victory Blvd			Victory Blvd		
Vol/Sat:	0.95	0.36	0.36	0.71	0.31	0.31	0.50	0.46	0.46	0.55	0.35	0.35
Crit Moves:	****			****			****			****		
Green/Cycle:	0.63	0.63	0.63	0.63	0.63	0.63	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	1.51	0.57	0.57	1.12	0.49	0.49	1.37	1.26	1.26	1.51	0.96	0.96
Delay/Veh:	282.6	10.8	10.8	149.1	9.8	9.8	261.5	151	151.0	316.6	44.2	44.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	282.6	10.8	10.8	149.1	9.8	9.8	261.5	151	151.0	316.6	44.2	44.2
DesignQueue:	4	37	5	2	34	1	4	86	8	4	61	8

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	59.44	59.44	32.56	32.56
Effective Green Time Per Lane Group, g:	63.44	63.44	36.56	36.56
Opposing Effective Green Time, go:	63.44	63.44	36.56	36.56
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	196	98	104	115
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	5.44	2.72	2.89	3.19
Adjusted Opposing Flow Rate, Vo:	1584	1848	1804	2363
Opposing Flow Per Lane Per Cycle, Volc:	16.12	18.80	18.36	24.04
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.37	0.37	0.63	0.63
Eff grn blocked by opposing queue, gq:	17.39	22.04	36.56	36.56
Eff grn while left turns filter thru, gu:	46.05	41.40	0.00	0.00
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.00	0.00	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	6.75	8.96	8.54	15.70
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.06	0.06	0.11	0.11
Single Lane Left Turn Adjustment Factor, fm:	0.11	0.07	0.11	0.11
Left Turn Adjustment Factor, flt:	0.11	0.07	0.11	0.11

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Level of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.205
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 61.1
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Laurel Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, and HCM Ops f(rt) and f(lt) Adj Case Module.

Table with columns for HCM Ops Saturation Adj Module. Rows include Ln Wid Adj, Hev Veh Adj, Grade Adj, Parking Adj, Bus Stp Adj, Area Adj, RT Adj, LT Adj, HCM Sat Adj, Usr Sat Adj, MLF Sat Adj, and Fnl Sat Adj.

Table with columns for Delay Adjustment Factor Module. Rows include Coordinated, Signal Type, and DelAdjFctr.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	40.05	40.05	51.95	51.95
Effective Green Time Per Lane Group, g:	44.05	44.05	55.95	55.95
Opposing Effective Green Time, go:	44.05	44.05	55.95	55.95
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	233	167	202	106
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	6.46	4.65	5.61	2.95
Adjusted Opposing Flow Rate, Vo:	698	1193	1404	771
Opposing Flow Per Lane Per Cycle, Volc:	10.20	17.44	20.53	11.27
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.56	0.56	0.44	0.44
Eff grn blocked by opposing queue, gq:	14.35	29.97	30.68	12.82
Eff grn while left turns filter thru, gu:	29.70	14.08	25.27	43.13
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.44	0.13	0.00	0.39
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, ell:	2.64	4.23	5.23	2.83
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.26	0.09	0.09	0.27
Left Turn Adjustment Factor, flt:	0.26	0.09	0.09	0.27

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.154
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 85.2
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Laurel Canyon Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 lanes.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 lanes.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 lanes.

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 2 2 1 2 2 1 3 3 1 3 3

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusivERT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 1.00 1.00 xxxx 0.96 0.96 xxxx 0.98 0.98 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 1.00 1.00 0.95 0.96 0.96 0.95 0.98 0.98 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.91 0.91 1.00 0.91 0.91
Fnl Sat Adj: 0.95 0.95 0.95 0.95 0.91 0.91 0.95 0.89 0.89 0.95 0.89 0.89

Delay Adjustment Factor Module:

Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 1.710
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 72.0
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Lankershim Blvd, Oxnard St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol., with sub-columns for each approach.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat., with sub-columns for each approach.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue, with sub-columns for each approach.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	44.62	44.62	47.38	47.38
Effective Green Time Per Lane Group, g:	48.62	48.62	51.38	51.38
Opposing Effective Green Time, go:	48.62	48.62	51.38	51.38
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	224	173	263	151
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	6.23	4.80	7.31	4.18
Adjusted Opposing Flow Rate, Vo:	947	1061	1141	1452
Opposing Flow Per Lane Per Cycle, Volc:	13.85	15.51	16.68	21.23
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.51	0.51	0.49	0.49
Eff grn blocked by opposing queue, gq:	19.68	23.11	24.34	35.87
Eff grn while left turns filter thru, gu:	28.94	25.51	27.04	15.51
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.28	0.21	0.16	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.29	3.71	4.02	5.49
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.18	0.14	0.13	0.08
Left Turn Adjustment Factor, flt:	0.18	0.14	0.13	0.08

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Level Of Service Computation Report
1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[10.1]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes. Rows include Lankershim Blvd and Chandler Blvd N. with sub-approaches North Bound, South Bound, East Bound, West Bound.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol. and rows for Lankershim Blvd and Chandler Blvd N.

Critical Gap Module table with columns for Critical Gp, FollowUpTim and rows for Lankershim Blvd and Chandler Blvd N.

Capacity Module table with columns for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. and rows for Lankershim Blvd and Chandler Blvd N.

Level Of Service Module table with columns for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS and rows for Lankershim Blvd and Chandler Blvd N.

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Level Of Service Detailed Computation Report
 1997 HCM Unsignalized Method
 Base Volume Alternative

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:		0%			0%			0%			0%	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed:	4.00 feet/sec											
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period:	0.25 hour											

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Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.588
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 14.2
Optimal Cycle: 35 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Lankershim Blvd and Chandler Blvd S. with North, South, East, and West Bound movements.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

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1997 HCM Operations Method
Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Table with 4 main columns: North Bound, South Bound, East Bound, West Bound. Sub-columns: L, T, R. Rows: Approach, Movement, HCM Ops Adjusted Lane Utilization Module, Lanes, Lane Group, #LnsInGrps.

Table with 4 main columns: North Bound, South Bound, East Bound, West Bound. Sub-columns: L, T, R. Rows: HCM Ops Input Saturation Adj Module, Lane Width, % Hev Veh, Grade, Parking/Hr, Bus Stp/Hr, Area Type, Cnft Ped/Hr, ExclusiveRT, % RT Prtct.

Table with 4 main columns: North Bound, South Bound, East Bound, West Bound. Sub-columns: L, T, R. Rows: HCM Ops f(rt) and f(lt) Adj Case Module, f(rt) Case, f(lt) Case.

Table with 4 main columns: North Bound, South Bound, East Bound, West Bound. Sub-columns: L, T, R. Rows: HCM Ops Saturation Adj Module, Ln Wid Adj, Hev Veh Adj, Grade Adj, Parking Adj, Bus Stp Adj, Area Adj, RT Adj, LT Adj, HCM Sat Adj, Usr Sat Adj, MLF Sat Adj, Fnl Sat Adj.

Table with 4 main columns: North Bound, South Bound, East Bound, West Bound. Sub-columns: L, T, R. Rows: Delay Adjustment Factor Module, Coordinated, Signal Type, DelAdjFctr.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
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 Base Volume Alternative

 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	59.12	59.12	32.88	32.88
Effective Green Time Per Lane Group, g:	63.12	63.12	36.88	36.88
Opposing Effective Green Time, go:	63.12	63.12	36.88	36.88
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	56	120	244	51
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.55	3.33	6.78	1.40
Adjusted Opposing Flow Rate, Vo:	841	1163	165	224
Opposing Flow Per Lane Per Cycle, Volc:	12.30	17.00	2.29	6.55
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.37	0.37	0.63	0.63
Eff grn blocked by opposing queue, gq:	12.03	19.00	3.03	9.51
Eff grn while left turns filter thru, gu:	51.09	44.12	33.85	27.37
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.35	0.15	0.77	0.74
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, ell:	3.01	4.10	1.55	1.65
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.06	0.06	0.11	0.11
Single Lane Left Turn Adjustment Factor, fm:	0.27	0.17	0.59	0.45
Left Turn Adjustment Factor, flt:	0.27	0.17	0.59	0.45

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB3

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

PM PEAK 2020 RB5

Wed Sep 22, 2004 17:35:50

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Scenario Report

Scenario: PM PEAK 2020 RB5

Command: PM

Volume: PM PEAK 2020 RB5

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: PM

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Topanga Canyo	101	1561	251	124	1331	612	886	1278	65	348	794	124
2 Topanga Canyo	201	1615	256	208	1178	126	218	1020	210	397	1231	281
3 Reseda Blvd/	167	1289	137	139	1044	159	166	1952	127	146	1675	189
4 Sepulveda Blv	458	1853	137	373	1030	279	366	1943	374	204	1701	321
5 Sepulveda Blv	699	1781	167	228	862	178	289	2549	594	107	2693	244
6 Van Nuys Blvd	78	674	145	147	694	127	103	493	39	131	1009	233
7 Van Nuys Blvd	508	1462	384	383	925	103	386	1685	370	419	1845	276
8 Van Nuys Blvd	188	1558	204	96	1460	54	101	2078	187	112	1540	196
9 Laurel Canyon	221	1134	171	160	664	129	192	735	213	102	1344	231
10 Laurel Canyon	404	1036	10	183	762	249	305	1733	325	188	1853	269
11 Lankershim Bl	211	883	103	164	744	137	251	1181	200	142	919	173
12 Lankershim Bl	97	1300	0	0	764	18	0	0	0	0	0	0
13 Lankershim Bl	55	1062	34	111	762	30	232	214	124	46	157	162

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1	Topanga Canyon Blvd/ Roscoe Bl	D	39.4 0.914	D	39.4 0.914	+ 0.000 D/V
# 2	Topanga Canyon Blvd/ Vicotry B	D	40.2 0.934	D	40.2 0.934	+ 0.000 D/V
# 3	Reseda Blvd/ Victory Blvd	E	70.5 2.298	E	70.5 2.298	+ 0.000 D/V
# 4	Sepulveda Blvd/ Roscoe Blvd	E	65.1 1.063	E	65.1 1.063	+ 0.000 D/V
# 5	Sepulveda Blvd/ Victory Blvd	E	72.9 1.145	E	72.9 1.145	+ 0.000 D/V
# 6	Van Nuys Blvd/ San Fernando Rd	C	25.2 1.030	C	25.2 1.030	+ 0.000 D/V
# 7	Van Nuys Blvd/ Roscoe Blvd	E	67.2 1.056	E	67.2 1.056	+ 0.000 D/V
# 8	Van Nuys Blvd/ Victory Blvd	E	78.2 1.552	E	78.2 1.552	+ 0.000 D/V
# 9	Laurel Canyon Blvd/ Roscoe Blv	E	61.6 2.215	E	61.6 2.215	+ 0.000 D/V
# 10	Laurel Canyon Blvd/ Victory Bl	F	86.3 1.159	F	86.3 1.159	+ 0.000 D/V
# 11	Lankershim Blvd/ Oxnard St	E	71.0 1.697	E	71.0 1.697	+ 0.000 D/V
# 12	Lankershim Blvd/ Chandler Blvd	B	10.0 0.000	B	10.0 0.000	+ 0.000 D/V
# 13	Lankershim Blvd/ Chandler Blvd	B	14.2 0.576	B	14.2 0.576	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.914
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 39.4
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name (Topanga Canyon Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module:

Table showing traffic volume calculations including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table showing saturation flow calculations including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table showing capacity analysis calculations including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB5

Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.934
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 40.2
 Optimal Cycle: 180 Level Of Service: D

Street Name: Topanga Canyon Blvd Victory Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 1 0 2 1 0 1 0 2 0 1 2 0 2 1 0 2 0 2 0 1

Volume Module:

Base Vol:	201	1615	256	208	1178	126	218	1020	210	397	1231	281
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	1615	256	208	1178	126	218	1020	210	397	1231	281
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	212	1700	269	219	1240	133	229	1074	221	418	1296	296
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	212	1700	269	219	1240	133	229	1074	221	418	1296	296
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	212	1700	269	219	1240	133	229	1074	221	418	1296	296

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.89	0.89	0.95	0.95	0.85	0.92	0.89	0.89	0.92	0.95	0.85
Lanes:	1.00	2.59	0.41	1.00	2.00	1.00	2.00	2.49	0.51	2.00	2.00	1.00
Final Sat.:	1805	4383	695	1805	3610	1615	3502	4190	863	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.12	0.39	0.39	0.12	0.34	0.08	0.07	0.26	0.26	0.12	0.36	0.18
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.14	0.42	0.42	0.13	0.41	0.41	0.07	0.31	0.31	0.14	0.38	0.38
Volume/Cap:	0.84	0.93	0.93	0.93	0.84	0.20	0.93	0.83	0.83	0.83	0.93	0.48
Delay/Veh:	64.3	36.3	36.3	83.9	31.5	19.3	85.8	35.7	35.7	52.3	41.3	23.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.3	36.3	36.3	83.9	31.5	19.3	85.8	35.7	35.7	52.3	41.3	23.8
DesignQueue:	10	61	10	11	45	4	12	44	9	20	49	11

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 2 1 0 1 0 2 0 1 2 0 2 1 0 2 0 2 0 1
Lane Group: L RT RT L T R L RT RT L T R
#LnsInGrps: 1 3 3 1 2 1 2 3 3 2 2 1

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusivERT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx 5 5 xxxx xxxx 2 xxxx 5 5 xxxx xxxx 2
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.98 0.98 xxxx xxxx 0.85 xxxx 0.97 0.97 xxxx xxxx 0.85
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.98 0.98 0.95 1.00 0.85 0.95 0.97 0.97 0.95 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.91 0.91 1.00 0.95 1.00 0.97 0.91 0.91 0.97 0.95 1.00
Fnl Sat Adj: 0.95 0.89 0.89 0.95 0.95 0.85 0.92 0.89 0.89 0.92 0.95 0.85

Delay Adjustment Factor Module:

Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.298
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 70.5
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Reseda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Lanes (1, 0, 2, 0, 1).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #3 Reseda Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 1 0 1 0 2 0 1
Lane Group: L T R L T R L RT RT L T R
#LnsInGrps: 1 2 1 1 2 1 1 3 3 1 2 1

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: 2 2 2 2 2 2 5 5 5 2 2 2
f(lt) Case: 2 2 2 2 2 2 2 2 2 2 2 2

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Bus Stp Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: 1.00 1.00 0.85 1.00 1.00 0.85 1.00 0.99 0.99 1.00 1.00 0.85
LT Adj: 0.09 1.00 1.00 0.09 1.00 1.00 0.07 1.00 1.00 0.07 1.00 1.00
HCM Sat Adj: 0.09 1.00 0.85 0.09 1.00 0.85 0.07 0.99 0.99 0.07 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.91 0.91 1.00 0.95 1.00
Fnl Sat Adj: 0.09 0.95 0.85 0.09 0.95 0.85 0.07 0.90 0.90 0.07 0.95 0.85

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < Actuated > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB5

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	38.66	38.66	53.34	53.34
Effective Green Time Per Lane Group, g:	42.66	42.66	57.34	57.34
Opposing Effective Green Time, go:	42.66	42.66	57.34	57.34
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	176	146	175	154
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.88	4.06	4.85	4.27
Adjusted Opposing Flow Rate, Vo:	1099	1357	1763	2188
Opposing Flow Per Lane Per Cycle, Volc:	16.07	19.84	26.91	21.33
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.57	0.57	0.43	0.43
Eff grn blocked by opposing queue, gq:	27.15	37.72	49.71	31.73
Eff grn while left turns filter thru, gu:	15.51	4.94	7.63	25.61
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.19	0.03	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.85	4.99	8.17	11.71
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.09	0.09	0.07	0.07
Left Turn Adjustment Factor, flt:	0.09	0.09	0.07	0.07

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.063
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 65.1
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Sepulveda Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various movements.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat across various movements.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various movements.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #4 Sepulveda Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.99 0.99 xxxx 0.97 0.97 xxxx 0.98 0.98 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.99 0.99 0.95 0.97 0.97 0.95 0.98 0.98 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91
Fnl Sat Adj: 0.92 0.90 0.90 0.92 0.88 0.88 0.92 0.89 0.89 0.92 0.89 0.89

Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.145
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 72.9
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Sepulveda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green (0, 0, 0), and Lanes (2, 0, 3, 0, 1).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various movement categories.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across various movement categories.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various movement categories.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.030
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.2
Optimal Cycle: 180 Level Of Service: C

Table with columns for Street Name (San Fernando Rd, Van Nuys Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and Min. Green (0).

Volume Module: Table with 12 columns for traffic movements and rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module: Table with 12 columns for traffic movements and rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for traffic movements and rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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 Level of Service Calculations
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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	48.82	48.82	43.18	43.18
Effective Green Time Per Lane Group, g:	52.82	52.82	47.18	47.18
Opposing Effective Green Time, go:	52.82	52.82	47.18	47.18
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	82	155	108	138
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.28	4.30	3.01	3.83
Adjusted Opposing Flow Rate, Vo:	864	862	1307	560
Opposing Flow Per Lane Per Cycle, Volc:	12.63	12.60	19.11	8.19
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.47	0.47	0.53	0.53
Eff grn blocked by opposing queue, gq:	15.95	15.90	32.67	10.34
Eff grn while left turns filter thru, gu:	36.87	36.92	14.51	36.84
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.34	0.34	0.06	0.53
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalents, ell:	3.07	3.07	4.75	2.28
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.23	0.23	0.08	0.34
Left Turn Adjustment Factor, flt:	0.23	0.23	0.08	0.34

San Fernando Valley E-W Revised EIR
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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.056
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 67.2
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Van Nuys, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0 2 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 2 3 3 2 3 3 2 3 3 2 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: < < < < < < < < < < < Other > > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 0.97 0.97 xxxx 0.99 0.99 xxxx 0.97 0.97 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 0.97 0.97 0.95 0.99 0.99 0.95 0.97 0.97 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91 0.97 0.91 0.91
Fnl Sat Adj: 0.92 0.88 0.88 0.92 0.90 0.90 0.92 0.89 0.89 0.92 0.89 0.89

Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < < No > > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.552
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 78.2
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Van Nuys Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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1997 HCM Operations Method
Base Volume Alternative

Intersection #8 Van Nuys Blvd/ Victory Blvd

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, and lane configurations (L, T, R).

Table for HCM Ops Adjusted Lane Utilization Module. Rows include Lanes, Lane Group, and #LnsInGrps for each bound.

Table for HCM Ops Input Saturation Adj Module. Rows include Lane Width, % Hev Veh, Grade, Parking/Hr, Bus Stp/Hr, Area Type, Cnft Ped/Hr, ExcluserRT, and % RT Prtct.

Table for HCM Ops f(rt) and f(lt) Adj Case Module. Rows include f(rt) Case and f(lt) Case with values like 5, 2, and xxxxx.

Table for HCM Ops Saturation Adj Module. Rows include various adjustment factors like Ln Wid Adj, Hev Veh Adj, Grade Adj, etc.

Table for Delay Adjustment Factor Module. Rows include Coordinated, Signal Type, and DelAdjFctr.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	59.37	59.37	32.63	32.63
Effective Green Time Per Lane Group, g:	63.37	63.37	36.63	36.63
Opposing Effective Green Time, go:	63.37	63.37	36.63	36.63
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	198	101	106	118
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	5.50	2.81	2.95	3.27
Adjusted Opposing Flow Rate, Vo:	1594	1855	1827	2384
Opposing Flow Per Lane Per Cycle, Volc:	16.22	18.87	18.59	24.26
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, gro:	0.37	0.37	0.63	0.63
Eff grn blocked by opposing queue, gq:	17.59	22.21	36.63	36.63
Eff grn while left turns filter thru, gu:	45.78	41.16	-0.00	-0.00
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.00	0.00	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	6.82	9.02	8.76	16.07
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.06	0.06	0.11	0.11
Single Lane Left Turn Adjustment Factor, fm:	0.11	0.07	0.11	0.11
Left Turn Adjustment Factor, flt:	0.11	0.07	0.11	0.11

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Level of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.215
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 61.6
Optimal Cycle: 180 Level Of Service: E

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Lanes. Rows include Laurel Canyon Blvd and Roscoe Blvd with North, South, East, and West bound movements.

Volume Module:

Table with 13 columns for traffic volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 13 columns for saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

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1997 HCM Operations Method
Base Volume Alternative

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1
Lane Group: L T R L T R L T R L T R
#LnsInGrps: 1 2 1 1 2 1 1 2 1 1 2 1

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: 2 2 2 2 2 2 2 2 2 2 2 2
f(lt) Case: 2 2 2 2 2 2 2 2 2 2 2 2

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Bus Stp Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: 1.00 1.00 0.85 1.00 1.00 0.85 1.00 1.00 0.85 1.00 1.00 0.85
LT Adj: 0.25 1.00 1.00 0.09 1.00 1.00 0.09 1.00 1.00 0.27 1.00 1.00
HCM Sat Adj: 0.25 1.00 0.85 0.09 1.00 0.85 0.09 1.00 0.85 0.27 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00
Fnl Sat Adj: 0.25 0.95 0.85 0.09 0.95 0.85 0.09 0.95 0.85 0.27 0.95 0.85

Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

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 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	39.73	39.73	52.27	52.27
Effective Green Time Per Lane Group, g:	43.73	43.73	56.27	56.27
Opposing Effective Green Time, go:	43.73	43.73	56.27	56.27
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	233	168	202	107
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	6.46	4.68	5.61	2.98
Adjusted Opposing Flow Rate, Vo:	699	1194	1415	774
Opposing Flow Per Lane Per Cycle, Volc:	10.22	17.46	20.69	11.32
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.56	0.56	0.44	0.44
Eff grn blocked by opposing queue, gq:	14.45	30.18	30.86	12.79
Eff grn while left turns filter thru, gu:	29.28	13.55	25.41	43.48
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.44	0.13	0.00	0.39
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	2.64	4.24	5.29	2.84
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.25	0.09	0.09	0.27
Left Turn Adjustment Factor, flt:	0.25	0.09	0.09	0.27

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 1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.159
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 86.3
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Laurel Canyon Blvd					Victory Blvd									
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	2	1	0

Volume Module:

Base Vol:	404	1036	10	183	762	249	305	1733	325	188	1853	269
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	404	1036	10	183	762	249	305	1733	325	188	1853	269
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	425	1091	11	193	802	262	321	1824	342	198	1951	283
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	425	1091	11	193	802	262	321	1824	342	198	1951	283
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	425	1091	11	193	802	262	321	1824	342	198	1951	283

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.91	0.91	0.95	0.89	0.89	0.95	0.89	0.89
Lanes:	1.00	1.98	0.02	1.00	1.51	0.49	1.00	2.53	0.47	1.00	2.62	0.38
Final Sat.:	1805	3572	34	1805	2620	856	1805	4263	799	1805	4443	645

Capacity Analysis Module:

Vol/Sat:	0.24	0.31	0.31	0.11	0.31	0.31	0.18	0.43	0.43	0.11	0.44	0.44
Crit Moves:	****			****			****			****		
Green/Cycle:	0.20	0.35	0.35	0.12	0.26	0.26	0.15	0.42	0.42	0.11	0.38	0.38
Volume/Cap:	1.16	0.88	0.88	0.88	1.16	1.16	1.16	1.01	1.01	1.01	1.16	1.16
Delay/Veh:	137.4	38.3	38.3	74.5	120	120.4	146.3	50.6	50.6	111.4	109	108.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	137.4	38.3	38.3	74.5	120	120.4	146.3	50.6	50.6	111.4	109	108.7
DesignQueue:	20	43	0	10	35	12	16	65	12	10	75	11

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Base Volume Alternative

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 2 2 1 2 2 1 3 3 1 3 3

HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 1.00 1.00 xxxx 0.96 0.96 xxxx 0.98 0.98 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 1.00 1.00 0.95 0.96 0.96 0.95 0.98 0.98 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.91 0.91 1.00 0.91 0.91
Fnl Sat Adj: 0.95 0.95 0.95 0.95 0.91 0.91 0.95 0.89 0.89 0.95 0.89 0.89

Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 1.697
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 71.0
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Lankershim Blvd and Oxnard St with North, South, East, and West Bound movements.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 columns.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 columns.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 columns.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module. Data includes lane counts, saturation factors, and delay adjustments for various traffic movements.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB5

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	44.35	44.35	47.65	47.65
Effective Green Time Per Lane Group, g:	48.35	48.35	51.65	51.65
Opposing Effective Green Time, go:	48.35	48.35	51.65	51.65
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	222	173	264	149
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	6.17	4.80	7.34	4.15
Adjusted Opposing Flow Rate, Vo:	927	1038	1149	1454
Opposing Flow Per Lane Per Cycle, Volc:	13.55	15.18	16.80	21.26
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, gro:	0.52	0.52	0.48	0.48
Eff grn blocked by opposing queue, gq:	19.20	22.51	24.46	35.76
Eff grn while left turns filter thru, gu:	29.15	25.84	27.19	15.89
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.30	0.23	0.16	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, e11:	3.24	3.63	4.05	5.51
Single Lane Through-car Equivalent, e12:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.19	0.15	0.13	0.08
Left Turn Adjustment Factor, flt:	0.19	0.15	0.13	0.08

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level of Service Computation Report
1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[10.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include Lankershim Blvd and Chandler Blvd N. with sub-rows for North, South, East, and West bounds.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol. Rows include Lankershim Blvd and Chandler Blvd N.

Critical Gap Module: Table with columns for Critical Gp and FollowUpTim. Rows include Lankershim Blvd and Chandler Blvd N.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. Rows include Lankershim Blvd and Chandler Blvd N.

Level of Service Module: Table with columns for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS. Rows include Lankershim Blvd and Chandler Blvd N.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB5

Level Of Service Detailed Computation Report
 1997 HCM Unsignalized Method
 Base Volume Alternative

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period: 0.25 hour												

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.576
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 14.2
Optimal Cycle: 34 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Lankershim Blvd and Chandler Blvd S. with sub-rows for North, South, East, and West bounds.

Volume Module: Table showing traffic volume adjustments including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module: Table showing saturation flow rates and adjustments for different lane configurations.

Capacity Analysis Module: Table showing capacity analysis metrics such as Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RB5

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0 2 0 1
Lane Group: L RT RT L RT RT L T R L T R
#LnsInGrps: 1 2 2 1 2 2 1 1 1 1 2 1

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
Parking/Hr: No No No No No No No No No No No No
Bus Stp/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0 0 0 0 0 0 0 0 0
ExclusiverT: Include Include Include Include
% RT Prtct: 0 0 0 0 0 0 0 0 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx xxxx 2 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 1.00 1.00 xxxx 0.99 0.99 xxxx xxxx 0.85 xxxx xxxx 0.85
LT Adj: 0.27 xxxx xxxxxx 0.17 xxxx xxxxxx 0.60 xxxx xxxxxx 0.45 xxxx xxxxxx
HCM Sat Adj: 0.27 1.00 1.00 0.17 0.99 0.99 0.60 1.00 0.85 0.45 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 1.00 1.00 1.00 0.95 1.00
Fnl Sat Adj: 0.27 0.95 0.95 0.17 0.94 0.94 0.60 1.00 0.85 0.45 0.95 0.85

Delay Adjustment Factor Module:

Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RB5

Level of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	58.50	58.50	33.50	33.50
Effective Green Time Per Lane Group, g:	62.50	62.50	37.50	37.50
Opposing Effective Green Time, go:	62.50	62.50	37.50	37.50
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	58	117	244	48
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.61	3.25	6.78	1.35
Adjusted Opposing Flow Rate, Vo:	834	1154	165	225
Opposing Flow Per Lane Per Cycle, Volc:	12.19	16.87	2.29	6.58
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.38	0.38	0.62	0.62
Eff grn blocked by opposing queue, gq:	12.10	19.10	3.00	9.47
Eff grn while left turns filter thru, gu:	50.40	43.40	34.50	28.03
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.35	0.15	0.77	0.73
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, ell:	2.99	4.07	1.55	1.66
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.06	0.06	0.11	0.11
Single Lane Left Turn Adjustment Factor, fm:	0.27	0.17	0.59	0.45
Left Turn Adjustment Factor, flt:	0.27	0.17	0.59	0.45

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
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Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

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Wed Sep 22, 2004 17:36:32

**San Fernando Valley E-W Revised EIR
Level of Service Calculations**

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Scenario Report

Scenario: PM PEAK 2020 RBN

Command: PM

Volume: PM PEAK 2020 RBN

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Paths

Routes: Default Routes

Configuration: PM

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RBN

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Topanga Canyo	102	1556	251	126	1335	612	902	1308	69	348	796	125
2 Topanga Canyo	201	1608	256	209	1182	127	224	1046	216	396	1230	280
3 Reseda Blvd/	166	1285	138	141	1049	160	171	1993	131	147	1670	188
4 Sepulveda Blv	460	1861	140	375	1036	280	367	1941	374	205	1702	323
5 Sepulveda Blv	703	1791	171	232	870	181	292	2546	595	109	2692	246
6 Van Nuys Blvd	79	682	147	148	701	129	104	498	41	131	1013	234
7 Van Nuys Blvd	511	1471	387	385	932	106	386	1684	371	419	1846	278
8 Van Nuys Blvd	189	1564	205	96	1463	56	103	2068	188	113	1534	197
9 Laurel Canyon	223	1142	172	161	671	131	193	740	213	103	1347	231
10 Laurel Canyon	406	1044	13	185	769	252	305	1732	326	190	1854	271
11 Lankershim Bl	211	883	103	164	743	137	249	1175	199	141	915	172
12 Lankershim Bl	90	1290	0	0	754	16	0	0	0	0	0	0
13 Lankershim Bl	53	1065	35	100	765	31	226	215	123	47	156	145

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RBN

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1	Topanga Canyon Blvd/ Roscoe Bl	D	40.1 0.920	D	40.1 0.920	+ 0.000 D/V
# 2	Topanga Canyon Blvd/ Vicotry B	D	40.4 0.934	D	40.4 0.934	+ 0.000 D/V
# 3	Reseda Blvd/ Victory Blvd	E	72.8 2.340	E	72.8 2.340	+ 0.000 D/V
# 4	Sepulveda Blvd/ Roscoe Blvd	E	66.0 1.066	E	66.0 1.066	+ 0.000 D/V
# 5	Sepulveda Blvd/ Victory Blvd	E	74.2 1.150	E	74.2 1.150	+ 0.000 D/V
# 6	Van Nuys Blvd/ San Fernando Rd	C	25.6 1.046	C	25.6 1.046	+ 0.000 D/V
# 7	Van Nuys Blvd/ Roscoe Blvd	E	68.3 1.059	E	68.3 1.059	+ 0.000 D/V
# 8	Van Nuys Blvd/ Victory Blvd	E	78.8 1.572	E	78.8 1.572	+ 0.000 D/V
# 9	Laurel Canyon Blvd/ Roscoe Blv	E	62.6 2.227	E	62.6 2.227	+ 0.000 D/V
# 10	Laurel Canyon Blvd/ Victory Bl	F	87.9 1.163	F	87.9 1.163	+ 0.000 D/V
# 11	Lankershim Blvd/ Oxnard St	E	69.9 1.683	E	69.9 1.683	+ 0.000 D/V
# 12	Lankershim Blvd/ Chandler Blvd	A	9.9 0.000	A	9.9 0.000	+ 0.000 D/V
# 13	Lankershim Blvd/ Chandler Blvd	B	14.2 0.543	B	14.2 0.543	+ 0.000 D/V

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RBN

Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #1 Topanga Canyon Blvd/ Roscoe Blvd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.920
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 40.1
 Optimal Cycle: 180 Level Of Service: D

Street Name:	Topanga Canyon Blvd						Roscoe Blvd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	1	0	2	2	0	2	2	0	2

Volume Module:

Base Vol:	102	1556	251	126	1335	612	902	1308	69	348	796	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	102	1556	251	126	1335	612	902	1308	69	348	796	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	107	1638	264	133	1405	644	949	1377	73	366	838	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	1638	264	133	1405	644	949	1377	73	366	838	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	107	1638	264	133	1405	644	949	1377	73	366	838	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.89	0.89	0.95	0.95	0.85	0.92	0.90	0.90	0.92	0.89	0.89
Lanes:	1.00	2.58	0.42	1.00	2.00	1.00	2.00	2.85	0.15	2.00	2.59	0.41
Final Sat.:	1805	4373	705	1805	3610	1615	3502	4893	258	3502	4393	690

Capacity Analysis Module:

Vol/Sat:	0.06	0.37	0.37	0.07	0.39	0.40	0.27	0.28	0.28	0.10	0.19	0.19
Crit Moves:	****					****	****				****	
Green/Cycle:	0.06	0.42	0.42	0.08	0.43	0.43	0.29	0.37	0.37	0.14	0.21	0.21
Volume/Cap:	0.92	0.90	0.90	0.90	0.90	0.92	0.92	0.77	0.77	0.77	0.92	0.92
Delay/Veh:	105.3	32.9	32.9	91.2	33.6	44.1	47.0	30.0	30.0	49.2	51.5	51.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	105.3	32.9	32.9	91.2	33.6	44.1	47.0	30.0	30.0	49.2	51.5	51.5
DesignQueue:	6	58	9	7	49	22	40	52	3	18	39	6

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RBN

Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Topanga Canyon Blvd/ Vicotry Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.934
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 40.4
 Optimal Cycle: 180 Level Of Service: D

Street Name:	Topanga Canyon Blvd						Victory Blvd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	1	0	2	2	0	2	2	0	2

Volume Module:

Base Vol:	201	1608	256	209	1182	127	224	1046	216	396	1230	280
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	1608	256	209	1182	127	224	1046	216	396	1230	280
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	212	1693	269	220	1244	134	236	1101	227	417	1295	295
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	212	1693	269	220	1244	134	236	1101	227	417	1295	295
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	212	1693	269	220	1244	134	236	1101	227	417	1295	295

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.89	0.89	0.95	0.95	0.85	0.92	0.89	0.89	0.92	0.95	0.85
Lanes:	1.00	2.59	0.41	1.00	2.00	1.00	2.00	2.49	0.51	2.00	2.00	1.00
Final Sat.:	1805	4381	697	1805	3610	1615	3502	4187	865	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.12	0.39	0.39	0.12	0.34	0.08	0.07	0.26	0.26	0.12	0.36	0.18
Crit Moves:	****			****			****			****		
Green/Cycle:	0.14	0.41	0.41	0.13	0.41	0.41	0.07	0.31	0.31	0.14	0.38	0.38
Volume/Cap:	0.85	0.93	0.93	0.93	0.85	0.20	0.93	0.84	0.84	0.84	0.93	0.48
Delay/Veh:	65.1	36.5	36.5	83.9	31.8	19.4	85.2	36.0	36.0	53.7	41.4	23.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.1	36.5	36.5	83.9	31.8	19.4	85.2	36.0	36.0	53.7	41.4	23.8
DesignQueue:	10	61	10	11	45	4	12	45	9	20	49	11

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 Reseda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.340
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 72.8
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Reseda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #3 Reseda Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	36.40	36.40	55.60	55.60
Effective Green Time Per Lane Group, g:	40.40	40.40	59.60	59.60
Opposing Effective Green Time, go:	40.40	40.40	59.60	59.60
Number Of Opposing Lanes, No:	2	2	2	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	175	148	180	155
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	4.85	4.12	5.00	4.30
Adjusted Opposing Flow Rate, Vo:	1104	1353	1758	2236
Opposing Flow Per Lane Per Cycle, Volc:	16.14	19.78	26.83	21.79
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.60	0.60	0.40	0.40
Eff grn blocked by opposing queue, gq:	28.41	39.01	46.79	31.22
Eff grn while left turns filter thru, gu:	11.99	1.39	12.81	28.38
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.19	0.03	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.87	4.97	8.13	12.32
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.10	0.10	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.10	0.10	0.07	0.07
Left Turn Adjustment Factor, flt:	0.10	0.10	0.07	0.07

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Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 Sepulveda Blvd/ Roscoe Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 1.066
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 66.0
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Sepulveda Blvd, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol., with 12 columns of data.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat., with 12 columns of data.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue, with 12 columns of data.

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #5 Sepulveda Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.150
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 74.2
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Sepulveda Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across 12 lanes.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 12 lanes.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across 12 lanes.

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Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #5 Sepulveda Blvd/ Victory Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 Van Nuys Blvd/ San Fernando Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.046
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 180 Level Of Service: C

Street Name: San Fernando Rd Van Nuys Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol: 79 682 147 148 701 129 104 498 41 131 1013 234
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 79 682 147 148 701 129 104 498 41 131 1013 234
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 83 718 155 156 738 136 109 524 43 138 1066 246
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 83 718 155 156 738 136 109 524 43 138 1066 246
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 83 718 155 156 738 136 109 524 43 138 1066 246

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.22 0.92 0.92 0.22 0.93 0.93 0.08 0.94 0.94 0.34 0.92 0.92
Lanes: 1.00 1.65 0.35 1.00 1.69 0.31 1.00 1.85 0.15 1.00 1.62 0.38
Final Sat.: 425 2890 623 425 2979 548 161 3299 272 644 2850 658

Capacity Analysis Module:
Vol/Sat: 0.20 0.25 0.25 0.37 0.25 0.25 0.68 0.16 0.16 0.21 0.37 0.37
Crit Moves: ****
Green/Cycle: 0.35 0.35 0.35 0.35 0.35 0.35 0.65 0.65 0.65 0.65 0.65 0.65
Volume/Cap: 0.56 0.71 0.71 1.05 0.71 0.71 1.05 0.24 0.24 0.33 0.58 0.58
Delay/Veh: 31.0 30.1 30.1 119.0 30.0 30.0 118.4 7.3 7.3 8.3 10.2 10.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 31.0 30.1 30.1 119.0 30.0 30.0 118.4 7.3 7.3 8.3 10.2 10.2
DesignQueue: 3 28 6 6 28 5 2 11 1 3 23 5

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #6 Van Nuys Blvd/ San Fernando Rd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	48.81	48.81	43.19	43.19
Effective Green Time Per Lane Group, g:	52.81	52.81	47.19	47.19
Opposing Effective Green Time, go:	52.81	52.81	47.19	47.19
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	83	156	109	138
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	2.31	4.33	3.04	3.83
Adjusted Opposing Flow Rate, Vo:	874	873	1313	567
Opposing Flow Per Lane Per Cycle, Volc:	12.78	12.76	19.20	8.29
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.47	0.47	0.53	0.53
Eff grn blocked by opposing queue, gq:	16.20	16.18	32.91	10.49
Eff grn while left turns filter thru, gu:	36.61	36.63	14.28	36.70
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.33	0.33	0.05	0.52
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.10	3.10	4.77	2.29
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.22	0.22	0.08	0.34
Left Turn Adjustment Factor, flt:	0.22	0.22	0.08	0.34

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Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #7 Van Nuys Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.059
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 68.3
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Van Nuys, Roscoe Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across various approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various approaches.

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #8 Van Nuys Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.572
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 78.8
Optimal Cycle: 180 Level of Service: E

Table with columns for Street Name (Van Nuys Blvd, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 189 1564 205 96 1463 56 103 2068 188 113 1534 197
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 189 1564 205 96 1463 56 103 2068 188 113 1534 197
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 199 1646 216 101 1540 59 108 2177 198 119 1615 207
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 199 1646 216 101 1540 59 108 2177 198 119 1615 207
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 199 1646 216 101 1540 59 108 2177 198 119 1615 207

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.11 0.89 0.89 0.07 0.90 0.90 0.11 0.90 0.90 0.11 0.89 0.89
Lanes: 1.00 2.65 0.35 1.00 2.89 0.11 1.00 2.75 0.25 1.00 2.66 0.34
Final Sat.: 200 4508 591 135 4966 190 207 4698 427 207 4519 580

Capacity Analysis Module:
Vol/Sat: 1.00 0.37 0.37 0.75 0.31 0.31 0.52 0.46 0.46 0.57 0.36 0.36
Crit Moves: ****
Green/Cycle: 0.63 0.63 0.63 0.63 0.63 0.63 0.37 0.37 0.37 0.37 0.37 0.37
Volume/Cap: 1.57 0.58 0.58 1.18 0.49 0.49 1.43 1.27 1.27 1.57 0.98 0.98
Delay/Veh: 310.0 10.8 10.8 172.1 9.8 9.8 286.5 157 156.7 343.0 47.2 47.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 310.0 10.8 10.8 172.1 9.8 9.8 286.5 157 156.7 343.0 47.2 47.2
DesignQueue: 4 37 5 2 34 1 4 86 8 4 62 8

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Intersection #8 Van Nuys Blvd/ Victory Blvd

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include HCM Ops Adjusted Lane Utilization Module, HCM Ops Input Saturation Adj Module, HCM Ops f(rt) and f(lt) Adj Case Module, HCM Ops Saturation Adj Module, and Delay Adjustment Factor Module.

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 Intersection #8 Van Nuys Blvd/ Victory Blvd

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	59.47	59.47	32.53	32.53
Effective Green Time Per Lane Group, g:	63.47	63.47	36.53	36.53
Opposing Effective Green Time, go:	63.47	63.47	36.53	36.53
Number Of Opposing Lanes, No:	3	3	3	3
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	199	101	108	119
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	5.53	2.81	3.01	3.30
Adjusted Opposing Flow Rate, Vo:	1599	1862	1822	2375
Opposing Flow Per Lane Per Cycle, Volc:	16.27	18.95	18.54	24.17
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.37	0.37	0.63	0.63
Eff grn blocked by opposing queue, gq:	17.62	22.29	36.53	36.53
Eff grn while left turns filter thru, gu:	45.85	41.18	0.00	0.00
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.00	0.00	0.00	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	6.85	9.09	8.70	15.91
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.06	0.06	0.11	0.11
Single Lane Left Turn Adjustment Factor, fm:	0.11	0.07	0.11	0.11
Left Turn Adjustment Factor, flt:	0.11	0.07	0.11	0.11

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1997 HCM Operations Method (Base Volume Alternative)

Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.227
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 62.6
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Laurel Canyon Blvd and Roscoe Blvd with North and South Bound approaches.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across various lanes.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

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Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1
Lane Group: L T R L T R L T R L T R
#LnsInGrps: 1 2 1 1 2 1 1 2 1 1 2 1
HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: < < < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0
HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case: xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx 2 xxxx xxxx
HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Bus Stp Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx xxxx 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx xxxx 0.85
LT Adj: 0.25 xxxx xxxxxx 0.09 xxxx xxxxxx 0.09 xxxx xxxxxx 0.27 xxxx xxxxxx
HCM Sat Adj: 0.25 1.00 0.85 0.09 1.00 0.85 0.09 1.00 0.85 0.27 1.00 0.85
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00
Fnl Sat Adj: 0.25 0.95 0.85 0.09 0.95 0.85 0.09 0.95 0.85 0.27 0.95 0.85
Delay Adjustment Factor Module:
Coordinated: < < < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RBN

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

```

*****
Intersection #9 Laurel Canyon Blvd/ Roscoe Blvd
*****
Approach:
Cycle Length, C:
Actual Green Time Per Lane Group, G:
Effective Green Time Per Lane Group, g:
Opposing Effective Green Time, go:
Number Of Opposing Lanes, No:
Number Of Lanes In Lane Group, N:
Adjusted Left-Turn Flow Rate, Vlt:
Proportion of Left Turns in Lane Group, Plt:
Proportion of Left Turns in Opp Flow, Plto:
Left Turns Per Cycle, LTC:
Adjusted Opposing Flow Rate, Vo:
Opposing Flow Per Lane Per Cycle, Volc:
Opposing Platoon Ratio, Rpo:
Lost Time Per Phase, tl:
Eff grn until arrival of left-turn car, gf:
Opposing Queue Ratio, qro:
Eff grn blocked by opposing queue, gq:
Eff grn while left turns filter thru, gu:
Max opposing cars arriving during gq-gf, n:
Proportion of Opposing Thru & RT cars, ptho:
Left-turn Saturation Factor, fs:
Proportion of Left Turns in Shared Lane, pl:
Through-car Equivalentents, el1:
Single Lane Through-car Equivalentents, el2:
Minimum Left Turn Adjustment Factor, fmin:
Single Lane Left Turn Adjustment Factor, fm:
Left Turn Adjustment Factor, flt:
*****
    
```

	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	39.63	39.63	52.37	52.37
Effective Green Time Per Lane Group, g:	43.63	43.63	56.37	56.37
Opposing Effective Green Time, go:	43.63	43.63	56.37	56.37
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	235	169	203	108
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	6.52	4.71	5.64	3.01
Adjusted Opposing Flow Rate, Vo:	706	1202	1418	779
Opposing Flow Per Lane Per Cycle, Volc:	10.32	17.57	20.73	11.39
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.56	0.56	0.44	0.44
Eff grn blocked by opposing queue, gq:	14.66	30.55	30.90	12.87
Eff grn while left turns filter thru, gu:	28.97	13.08	25.47	43.50
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.43	0.12	0.00	0.39
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalentents, el1:	2.66	4.27	5.31	2.85
Single Lane Through-car Equivalentents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.09	0.09	0.07	0.07
Single Lane Left Turn Adjustment Factor, fm:	0.25	0.09	0.09	0.27
Left Turn Adjustment Factor, flt:	0.25	0.09	0.09	0.27

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RBN

Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.163
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 87.9
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Laurel Canyon Blvd (North and South Bound) and Victory Blvd (East and West Bound).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across various approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across various approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across various approaches.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RBN

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #10 Laurel Canyon Blvd/ Victory Blvd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 2 2 1 2 2 1 3 3 1 3 3

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: < < < < < < < < < < < Other > > > > > > > > > > > > > >
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: xxxx 5 5 xxxx 5 5 xxxx 5 5 xxxx 5 5
f(lt) Case: 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx 1.00 1.00 xxxx 0.96 0.96 xxxx 0.98 0.98 xxxx 0.98 0.98
LT Adj: 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
HCM Sat Adj: 0.95 1.00 1.00 0.95 0.96 0.96 0.95 0.98 0.98 0.95 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.91 0.91 1.00 0.91 0.91
Fnl Sat Adj: 0.95 0.95 0.95 0.95 0.91 0.91 0.95 0.89 0.89 0.95 0.89 0.89

Delay Adjustment Factor Module:

Coordinated: < < < < < < < < < < < No > > > > > > > > > > > > > >
Signal Type: < < < < < < < < < < Actuated > > > > > > > > > > > > > >
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RBN

Level Of Service Computation Report

1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lankershim Blvd/ Oxnard St

Cycle (sec): 100 Critical Vol./Cap. (X): 1.683
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 69.9
Optimal Cycle: 180 Level Of Service: E

Table with columns for Street Name (Lankershim Blvd, Oxnard St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol., and 12 columns of values.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat., and 12 columns of values.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue, and 12 columns of values.

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RBN

Level Of Service Detailed Computation Report
1997 HCM Operations Method
Base Volume Alternative

Intersection #11 Lankershim Blvd/ Oxnard St

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

HCM Ops Adjusted Lane Utilization Module:

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0
Lane Group: L RT RT L RT RT L RT RT L RT RT L RT RT
#LnsInGrps: 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2

HCM Ops Input Saturation Adj Module:

Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
% Hev Veh: 0 0 0 0 0 0 0 0
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prtct: 0 0 0 0

HCM Ops f(rt) and f(lt) Adj Case Module:

f(rt) Case: 5 5 5 5 5 5 5 5 5 5 5 5
f(lt) Case: 2 2 2 2 2 2 2 2 2 2 2 2

HCM Ops Saturation Adj Module:

Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Bus Stp Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: 1.00 0.98 0.98 1.00 0.98 0.98 1.00 0.98 0.98 1.00 0.98 0.98
LT Adj: 0.19 1.00 1.00 0.15 1.00 1.00 0.13 1.00 1.00 0.08 1.00 1.00
HCM Sat Adj: 0.19 0.98 0.98 0.15 0.98 0.98 0.13 0.98 0.98 0.08 0.98 0.98
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 0.95
Fnl Sat Adj: 0.19 0.93 0.93 0.15 0.93 0.93 0.13 0.93 0.93 0.08 0.93 0.93

Delay Adjustment Factor Module:

Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #11 Lankershim Blvd/ Oxnard St

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	44.67	44.67	47.33	47.33
Effective Green Time Per Lane Group, g:	48.67	48.67	51.33	51.33
Opposing Effective Green Time, go:	48.67	48.67	51.33	51.33
Number Of Opposing Lanes, No:	2	2	2	2
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	222	173	262	148
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	6.17	4.80	7.28	4.12
Adjusted Opposing Flow Rate, Vo:	926	1038	1144	1446
Opposing Flow Per Lane Per Cycle, Volc:	13.54	15.18	16.73	21.14
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.51	0.51	0.49	0.49
Eff grn blocked by opposing queue, gq:	19.06	22.37	24.46	35.65
Eff grn while left turns filter thru, gu:	29.61	26.30	26.87	15.68
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.30	0.23	0.16	0.00
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.24	3.63	4.03	5.46
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.08	0.08	0.08	0.08
Single Lane Left Turn Adjustment Factor, fm:	0.19	0.15	0.13	0.08
Left Turn Adjustment Factor, flt:	0.19	0.15	0.13	0.08

San Fernando Valley E-W Revised EIR
Level of Service Calculations
PM PEAK - Year 2020 RBN

Level Of Service Computation Report

1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: A[9.9]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include Lankershim Blvd and Chandler Blvd N. with various traffic movements and lane configurations.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol. for each approach and movement.

Critical Gap Module table showing Critical Gp and FollowUpTim values for each approach and movement.

Capacity Module table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for each approach and movement.

Level Of Service Module table showing Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS for each approach and movement.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
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Level Of Service Detailed Computation Report
 1997 HCM Unsignalized Method
 Base Volume Alternative

 Intersection #12 Lankershim Blvd/ Chandler Blvd N.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed:	4.00 feet/sec											
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period:	0.25 hour											

San Fernando Valley E-W Revised EIR
Level of Service Calculations
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Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.543
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 14.2
Optimal Cycle: 32 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Lankershim Blvd and Chandler Blvd S. with various movement and lane configurations.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue across four approaches.

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
 1997 HCM Operations Method
 Base Volume Alternative

 Intersection #13 Lankershim Blvd/ Chandler Blvd S.

Approach:	North	South	East	West
Cycle Length, C:	100	100	100	100
Actual Green Time Per Lane Group, G:	57.43	57.43	34.57	34.57
Effective Green Time Per Lane Group, g:	61.43	61.43	38.57	38.57
Opposing Effective Green Time, go:	61.43	61.43	38.57	38.57
Number Of Opposing Lanes, No:	2	2	2	1
Number Of Lanes In Lane Group, N:	1	1	1	1
Adjusted Left-Turn Flow Rate, Vlt:	56	105	238	49
Proportion of Left Turns in Lane Group, Plt:	1.00	1.00	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	1.55	2.92	6.61	1.37
Adjusted Opposing Flow Rate, Vo:	838	1158	164	226
Opposing Flow Per Lane Per Cycle, Volc:	12.25	16.93	2.28	6.61
Opposing Platoon Ratio, Rpo:	1.00	1.00	1.00	1.00
Lost Time Per Phase, tl:	0.00	0.00	0.00	0.00
Eff grn until arrival of left-turn car, gf:	0.00	0.00	0.00	0.00
Opposing Queue Ratio, qro:	0.39	0.39	0.61	0.61
Eff grn blocked by opposing queue, gq:	12.52	19.75	2.93	9.35
Eff grn while left turns filter thru, gu:	48.91	41.68	35.64	29.22
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	0.35	0.15	0.77	0.73
Proportion of Left Turns in Shared Lane, pl:	1.00	1.00	1.00	1.00
Through-car Equivalent, el1:	3.01	4.09	1.55	1.66
Single Lane Through-car Equivalent, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	0.07	0.07	0.10	0.10
Single Lane Left Turn Adjustment Factor, fm:	0.26	0.17	0.60	0.46
Left Turn Adjustment Factor, flt:	0.26	0.17	0.60	0.46

San Fernando Valley E-W Revised EIR
 Level of Service Calculations
 PM PEAK - Year 2020 RBN

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node Intersection	NB	SB	EB	WB
1 Topanga Canyon Blvd/ Roscoe Blvd	102100	102010	202100	202100
2 Topanga Canyon Blvd/ Vicotry Blvd	102100	102010	202100	202010
3 Reseda Blvd/ Victory Blvd	102010	102010	102100	102010
4 Sepulveda Blvd/ Roscoe Blvd	202100	202100	202100	202100
5 Sepulveda Blvd/ Victory Blvd	203010	203010	103010	103010
6 Van Nuys Blvd/ San Fernando Rd	101100	101100	101100	101100
7 Van Nuys Blvd/ Roscoe Blvd	202100	202100	202100	202100
8 Van Nuys Blvd/ Victory Blvd	102100	102100	102100	102100
9 Laurel Canyon Blvd/ Roscoe Blvd	102010	102010	102010	102010
10 Laurel Canyon Blvd/ Victory Blvd	101100	101100	102100	102100
11 Lankershim Blvd/ Oxnard St	101100	101100	101100	101100
12 Lankershim Blvd/ Chandler Blvd N.	102000	002010	000000	000000
13 Lankershim Blvd/ Chandler Blvd S.	101100	101100	101010	102010

APPENDIX 8-D
AIR EMISSION MODELING

Environmental Benefits: Change in Criteria Pollutant and Precursor Emissions

Vehicle Class	Regional VMT/year (millions)			Emission Factor (g/ml)						Annual Emissions (tons)												Change in Emissions (tons per year)						
	No-Build	TSM	New Start	No-Build			TSM			New Start			New Start vs. No-Build			New Start vs. TSM												
				CO	NOx	PM-10	CO	NOx	PM-10	CO	NOx	PM-10	CO	NOx	PM-10	CO	NOx	PM-10	CO	NOx	PM-10	CO	NOx	PM-10				
Passenger Veh. (LDV/MDT)	141,867	141,647	141,644	3.2	0.5	0.2	0.02	491,907	70,272	26,547	3,123	491,837	70,262	26,544	3,123	491,827	70,261	26,543	3,123	-80	-11	-4	-10	-1	-1	0	0	0
Heavy-Duty Vehicle				0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bus/Diesel				0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bus/CNG	235.5	236.9	237.3	1.2	6.0	1.7	0.02	319	1,545	431	5	321	1,554	433	5	322	1,556	434	5	2	11	3	0	1	3	1	0	0
Bus/LPG				0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bus/M85 or E85				0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commuter Rail/Diesel	4.9	4.9	4.9	7.5	22.4	202.0	5.1	40	121	1,080	27	41	122	1,102	28	40	121	1,091	27	-78	0	-1	-10	0	-11	0	0	0
Total																												

NOx: Private vehicles from regional travel demand model
 - Bus and rail from system operating plans
 - Rail: See supplemental worksheet

SOURCE: Private vehicles derived from EMFAC emission factor model
 - All bus trips from diesel EP's and conversion factors given in text

Calculation:
 Annual Emissions = VMT * 1,000,000 * Emission Factor / 907,185 g/ton

Calculation:
 Change in Emissions = New Start Emissions - No-Build Emissions

Calculation:
 Change in Emissions = New Start Emissions - TSM Emissions

Environmental Benefits: Change in Criteria Pollutant and Precursor Emissions -- Supplemental Worksheet

Alternative:		No-Build, TSM										
Rail Diesel Locomotive Type	Emission Rate (g/gal)			Fuel Consumption			Operations		Total Annual Emissions (tons)			
	CO	NOx	VOC	PM-10	(gal/veh-mi)	total vehicle-miles (forecast year)	Percent of veh-mi. by locomotive type	CO	NOx	VOC	PM-10	
Default (Pre-Standards)	10.4	31.2	281	7.07	0.719	4,894,378	100%	40.3	121.0	1090.0	27.4	
Other (1)								0.0	0.0	0.0	0.0	
Other (2)								0.0	0.0	0.0	0.0	
etc.								0.0	0.0	0.0	0.0	
Total								40.3	121.0	1090.0	27.4	

Note: Multiple rows are provided to allow for multiple types of locomotives with different emission rates.

Source: Default rates as provided, or fleet-specific information (include documentation).

Source: Historical system operating data (total fuel consumption / total vehicle-miles) or default of 0.719 gal/veh-mi.

Source: System operating plans

Calculation: Total emissions = emission rate (g/gal) * fuel consumption (gal/veh-mi) * total veh-mi/year * percent by locomotive type / 907,185 g/ton

Sum = total annual emissions from diesel commuter rail operations (calculate for each alternative)

Environmental Benefits: Change in Criteria Pollutant and Precursor Emissions -- Supplemental Worksheet

Alternative:		New-Start									
		Emission Rate (g/gal)			Fuel Consumption		Operations		Total Annual Emissions (tons)		
Rail Diesel Locomotive Type	CO	NOx	VOC	PM-10	(gal/veh-mi)	total vehicle-miles (forecast year)	Percent of veh-mi. by locomotive type	CO	NOx	VOC	PM-10
Default (Pre-Standards)	10.4	31.2	281	7.07	0.719	4,896,822	100%	40.4	121.1	1090.6	27.4
Other (1)								0.0	0.0	0.0	0.0
Other (2)								0.0	0.0	0.0	0.0
etc.								0.0	0.0	0.0	0.0
Total								40.4	121.1	1090.6	27.4

<p>Note: Multiple rows are provided to allow for multiple types of locomotives with different emission rates.</p>	<p>Source: Default rates as provided, or fleet-specific information (include documentation).</p>	<p>Source: Historical system operating data (total fuel consumption / total vehicle-miles) or default of 0.719 gal/veh-mi.</p>	<p>Source: System operating plans</p>	<p>Calculation: Total emissions = emission rate (g/gal) * fuel consumption (gal/veh-mi) * total veh-mi/year * percent by locomotive type / 907,185 g/ton</p> <p>Sum = total annual emissions from diesel commuter rail operations (calculate for each alternative)</p>
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Environmental Benefits: Change in Greenhouse Gas Emissions

Fuel Type	Change in BTU/year		CO2 consumption (tons CO2/million BTU)	Change in CO2 Emissions/year	
	New Start vs. No-Build	New Start vs. TSM		New Start vs. No-Build	New Start vs. TSM
Gasoline	-143,830,782,003	-18,398,868,584	0.0765	-11,003	-1,408
Diesel	0	0	0.0788	0	0
CNG	72,926,491,530	16,401,614,595	0.0585	4,266	959
LPG			0.0678	0	0
M85/E85			0.0765	0	0
Electricity	1,351,881,210	-2,402,290,578	0.0665	90	-160
Total				-6,647	-608

Source:
Section 4.6, Calculation of
Change in BTU Consumption

Source:
Calculations by Cambridge
Systematics, Inc. based on
Energy Information
Administration (1996) and
Delucchi (1996).

Calculation:
Change in CO2/year = Change
in BTU/year * Tons CO2/million
BTU / 1,000,000

Environmental Benefits: Change in Regional Energy Consumption

Veh. Class	Regional VMT/year			Change in VMT/year		Energy Consumption (BTU/veh-mi)	Change in BTU/year	
	No-Build	TSM	New Start	New Start vs. No-Build	New Start vs. TSM		New Start vs. No-Build	New Start vs. TSM
Passenger Veh. (LDV/LDT)	141,666,951,994	141,646,828,151	141,643,876,303	-23,075,691	-2,951,848	6,233	-143,830,782,003	-18,398,868,594
Heavy-Duty Vehicle	0	0	0	0	0	22,046	0	0
Bus/Diesel				0	0	41,655	0	0
Bus/CNG	235,507,550	236,864,527	237,258,276	1,750,726	393,749	41,655	72,926,491,530	16,401,614,595
Bus/LPG				0	0	41,655	0	0
Bus/M85 or E85				0	0	41,655	0	0
Bus/Electric				0	0	41,655	0	0
Light or Heavy Rail/Electric	9,985,688	10,033,980	10,003,078	17,390	-30,902	77,739	1,351,881,210	-2,402,290,578
Commuter Rail/Diesel	4,894,378	4,946,721	4,896,822	2,444	-49,899	100,000	244,400,000	-4,989,900,000
Commuter Rail/Electric				0	0	100,000	0	0
Total							-69,308,009,263	-9,389,444,567

Note:
 For dual-mode buses, allocate total VMT by percentage used for each fuel type (i.e. 50% diesel/50% electric)

Source:
 - Passenger and HDV from Regional Travel Demand Model
 - Bus and rail from system operating plans

Calculation:
 - New Start vs. No-Build = New Start VMT/year - No-Build VMT/year
 - New Start vs. TSM = New Start VMT/year - TSM VMT/year

Source:
 Transportation Energy Data Book Edition 16 (Bus factors assumed same for alternative fuels as for diesel)

Calculation:
 Change in BTU/year = Change in VMT/year * BTU/veh-mi

Note:
 Transit agencies may provide their own estimates for transit vehicle BTU/mi factors. If so, documentation should be provided.

Environmental Benefits: Change in Criteria Pollutant and Precursor Emissions -- Supplemental Worksheet

Alternative:		No-Build, TSM										
		Emission Rate (g/gal)			Fuel Consumption		Operations		Total Annual Emissions (tons)			
Rail Diesel Locomotive Type		CO	NOx	VOC	PM-10	(gal/veh-mi)	total vehicle-miles (forecast year)	Percent of veh-mi. by locomotive type	CO	NOx	VOC	PM-10
Default (Pre-Standards)		10.4	31.2	281	7.07	0.719	4,894,378	100%	40.3	121.0	1090.0	27.4
Other (1)									0.0	0.0	0.0	0.0
Other (2)									0.0	0.0	0.0	0.0
etc.									0.0	0.0	0.0	0.0
Total									40.3	121.0	1090.0	27.4

<p>Note: Multiple rows are provided to allow for multiple types of locomotives with different emission rates.</p>	<p>Source: Default rates as provided, or fleet-specific information (include documentation).</p>
<p>Source: Historical system operating data (total fuel consumption / total vehicle-miles) or default of 0.719 gal/veh-mi.</p>	<p>Source: System operating plans</p>
<p>Calculation: Total emissions = emission rate (g/gal) * fuel consumption (gal/veh-mi) * total vehicle-miles * percent by locomotive type / 907,185 g/ton</p>	
<p>Sum = total annual emissions from diesel commuter rail operations (calculate for each alternative)</p>	

Environmental Benefits: Change in Criteria Pollutant and Precursor Emissions -- Supplemental Worksheet

Alternative:		New-Start									
Rail Diesel Locomotive Type	Emission Rate (g/gal)			Fuel Consumption (gal/veh-mi)	Operations		Total Annual Emissions (tons)				
	CO	NOx	VOC		PM-10	total vehicle-miles (forecast year)	Percent of veh-mi. by locomotive type	CO	NOx	VOC	PM-10
Default (Pre-Standards)	10.4	31.2	281	7.07	0.719	4,880,681	100%	40.2	120.7	1087.0	27.3
Other (1)								0.0	0.0	0.0	0.0
Other (2)								0.0	0.0	0.0	0.0
etc.								0.0	0.0	0.0	0.0
Total								40.2	120.7	1087.0	27.3

Note: Multiple rows are provided to allow for multiple types of locomotives with different emission rates.

Source: Default rates as provided, or fleet-specific information (include documentation).

Source: Historical system operating data (total fuel consumption / total vehicle-miles) or default of 0.719 gal/veh-mi.

Source: System operating plans

Calculation:
 Total emissions = emission rate (g/gal) * fuel consumption (gal/veh-mi) * total veh-mi/year * percent by locomotive type / 907,185 g/ton

Sum = total annual emissions from diesel commuter rail operations (calculate for each alternative)

Environmental Benefits: Change in Greenhouse Gas Emissions

Fuel Type	Change in BTU/year		CO2 consumption (tons CO2/million BTU)	Change in CO2 Emissions/year	
	New Start vs. Build	New Start vs. TSM		New Start vs. Build	New Start vs. TSM
Gasoline	-141,042,256,230	-15,610,342,811	0.0765	-10,790	-1,194
Diesel	0	0	0.0788	0	0
CNG	64,934,313,300	8,409,436,365	0.0585	3,799	492
LPG			0.0678	0	0
M85/E85			0.0765	0	0
Electricity	5,447,871,381	1,693,699,593	0.0665	362	113
Total				-6,629	-590

Source:
Section 4.6, Calculation of
Change in BTU Consumption

Source:
Calculations by Cambridge
Systematics, Inc. based on
Energy Information
Administration (1996) and
Delucchi (1996).

Calculation:

Change in CO2/year = Change
in BTU/year * Tons CO2/million
BTU / 1,000,000

Environmental Benefits: Change in Regional Energy Consumption

Veh. Class	Regional VMT/year			Change in VMT/year		Energy Consumption (BTU/veh-mi)	Change in BTU/year	
	No-Build	TSM	New Start	New Start vs. No-Build	New Start vs. TSM		New Start vs. No-Build	New Start vs. TSM
	Passenger Veh. (LDV/LDT)	141,666,951,994	141,646,828,151	141,644,323,684	-22,628,310		-2,504,467	6,233
Heavy-Duty Vehicle	0	0	0	0	0	22,046	0	0
Bus/Diesel				0	0	41,655	0	0
Bus/CNG	235,507,550	236,864,527	237,066,410	1,558,860	201,883	41,655	64,934,313,300	8,409,436,365
Bus/LPG				0	0	41,655	0	0
Bus/M85 or E85				0	0	41,655	0	0
Bus/Electric				0	0	41,655	0	0
Light or Heavy Rail/Electric	9,985,688	10,033,980	10,055,767	70,079	21,787	77,739	5,447,871,381	1,693,699,593
Commuter Rail/Diesel	4,894,378	4,946,721	4,880,681	-13,697	-66,040	100,000	-1,369,700,000	-6,604,000,000
Commuter Rail/Electric				0	0	100,000	0	0
Total							-72,029,771,549	-12,111,206,853

Note:
 For dual-mode buses, allocate total VMT by percentage used for each fuel type (i.e. 50% diesel/ 50% electric)

Source:
 - Passenger and HDV from Regional Travel Demand Model
 - Bus and rail from system operating plans

Calculation:
 - New Start vs. No-Build = New Start VMT/year - No-Build VMT/year
 - New Start vs. TSM = New Start VMT/year - TSM VMT/year

Source:
 Transportation Energy Data Book Edition 16 (Bus factors assumed same for alternative fuels as for diesel)

Note:
 Transit agencies may provide their own estimates for transit vehicle BTU/mi factors. If so, documentation should be provided.

Environmental Benefits: Change in Criteria Pollutant and Precursor Emissions

Vehicle Class	Regional VMT/year (millions)				Emission Factor (g/mi)				Annual Emissions (tons)												Change in Emissions (tons per year)											
	No-Build		New Start		CO	NOx	VOC	PM-10	No-Build				TSM				New Start				New Start vs. No-Build				New Start vs. TSM							
	TSM	New Start	CO	NOx					VOC	PM-10	CO	NOx	VOC	PM-10	CO	NOx	VOC	PM-10	CO	NOx	VOC	PM-10	CO	NOx	VOC	PM-10						
Passenger Veh. (LDV/LDT)	141,987	141,647	141,646		3.2	0.5	0.2	0.02	491,907	70,272	26,547	3,123	491,837	70,282	26,544	3,123	491,838	70,282	26,544	3,123	-71	-10	-4	0	-1	0	0	0				
Heavy-Duty Vehicle					0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Bus/Diesel					0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Bus/CNG	235.5	236.9	237.1		1.2	6.0	1.7	0.02	319	1,545	431	5	321	1,554	433	5	321	1,555	434	5	2	10	3	0	0	1	0	0				
Bus/LPG					0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Bus/MS or EBS					0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Commuter Rail	4.9	4.9	4.9		7.5	22.4	202.0	5.1	40	121	1,090	27	41	122	1,102	28	40	121	1,096	27	0	0	-4	-1	-2	-15	0					
Total																																

Notes:
 - Private vehicles from regional travel demand model
 - Bus and rail from system operating plans
 - Rail. See supplemental worksheet

Sources:
 - Private vehicles derived from EMFAC emission factor model
 - All fuel buses from diesel EF's and conversion factors given in text
 - Rail. See supplemental worksheet

Calculations:
 Annual Emissions = VMT * 1,000,000 * Emission Factor / 907,185 g/ton

Change in Emissions =
 New Start Emissions - No-Build Emissions

Change in Emissions =
 New Start Emissions - TSM Emissions

Environmental Benefits: Change in Criteria Pollutant and Precursor Emissions -- Supplemental Worksheet

Alternative:		No-Build, TSM									
Rail Diesel Locomotive Type	Emission Rate (g/gal)			Fuel Consumption (gal/veh-mi)	Operations		Total Annual Emissions (tons)				
	CO	NOx	VOC		PM-10	total vehicle-miles (forecast year)	Percent of veh-mi. by locomotive type	CO	NOx	VOC	PM-10
Default (Pre-Standards)	10.4	31.2	281	7.07	0.719	4,894,378	100%	40.3	121.0	1090.0	27.4
Other (1)								0.0	0.0	0.0	0.0
Other (2)								0.0	0.0	0.0	0.0
etc.								0.0	0.0	0.0	0.0
Total								40.3	121.0	1090.0	27.4

Note: Multiple rows are provided to allow for multiple types of locomotives with different emission rates.

Source: Default rates as provided, or fleet-specific information (include documentation).

Source: Historical system operating data (total fuel consumption / total vehicle-miles) or default of 0.719 gal/veh-mi.

Source: System operating plans

Calculation: Total emissions = emission rate (g/gal) * fuel consumption (gal/veh-mi) * total veh-mi/year * percent by locomotive type / 907,185 g/ton

Sum = total annual emissions from diesel commuter rail operations (calculate for each alternative)

Environmental Benefits: Change in Criteria Pollutant and Precursor Emissions -- Supplemental Worksheet

Alternative:		New-Start									
Rail Diesel Locomotive Type	Emission Rate (g/gal)			Fuel Consumption (gal/veh-mi)	Operations		Total Annual Emissions (tons)				
	CO	NOx	VOC		PM-10	total vehicle-miles (forecast year)	Percent of veh-mi. by locomotive type	CO	NOx	VOC	PM-10
Default (Pre-Standards)	10.4	31.2	281	7.07	0.719	4,878,397	100%	40.2	120.6	1086.5	27.3
Other (1)								0.0	0.0	0.0	0.0
Other (2)								0.0	0.0	0.0	0.0
etc.								0.0	0.0	0.0	0.0
Total								40.2	120.6	1086.5	27.3

Note: Multiple rows are provided to allow for multiple types of locomotives with different emission rates.

Source: Default rates as provided, or fleet-specific information (include documentation).

Source: Historical system operating data (total fuel consumption / total vehicle-miles) or default of 0.719 gal/veh-mi.

Source: System operating plans

Calculation: Total emissions = emission rate (g/gal) * fuel consumption (gal/veh-mi) * total veh-mi/year * percent by locomotive type / 907,185 g/ton

Sum = total annual emissions from diesel commuter rail operations (calculate for each alternative)

Environmental Benefits: Change in Greenhouse Gas Emissions

Fuel Type	Change in BTU/year		CO2 consumption (tons CO2/million BTU)	Change in CO2 Emissions/year	
	New Start vs. No-Build	New Start vs. TSM		New Start vs. No-Build	New Start vs. TSM
Gasoline	-127,824,500,333	-2,392,586,914	0.0765	-9,779	-183
Diesel	0	0	0.0788	0	0
CNG	65,897,751,795	9,372,874,860	0.0585	3,855	548
LPG			0.0678	0	0
M85/E85			0.0765	0	0
Electricity	1,066,967,775	-2,687,204,013	0.0665	71	-179
Total				-5,853	187

Source:
Section 4.6, Calculation of Change in BTU Consumption

Source:
Calculations by Cambridge Systematics, Inc. based on Energy Information Administration (1996) and Delucchi (1996).

Calculation:
Change in CO2/year = Change in BTU/year * Tons CO2/million BTU / 1,000,000

Environmental Benefits: Change in Regional Energy Consumption

Veh. Class	Regional VMT/year			Change in VMT/year		Energy Consumption (BTU/veh-mi)	Change in BTU/year	
	No-Build	TSM	New Start	New Start vs. No-Build	New Start vs. TSM		New Start vs. No-Build	New Start vs. TSM
	Passenger Veh. (LDV/LDT)	141,666,951,994	141,646,828,151	141,646,444,293	-20,507,701		-383,858	6,233
Heavy-Duty Vehicle	0	0	0	0	0	22,046	0	0
Bus/Diesel				0	0	41,655	0	0
Bus/CNG	235,507,550	236,864,527	237,089,539	1,581,989	225,012	41,655	65,897,751,795	9,372,874,860
Bus/LPG				0	0	41,655	0	0
Bus/M85 or E85				0	0	41,655	0	0
Bus/Electric				0	0	41,655	0	0
Light or Heavy Rail/Electric	9,985,688	10,033,980	9,999,413	13,725	-34,567	77,739	1,066,967,775	-2,687,204,013
Commuter Rail/Diesel	4,894,378	4,946,721	4,878,397	-15,981	-68,324	100,000	-1,598,100,000	-6,832,400,000
Commuter Rail/Electric				0	0	100,000	0	0
Total							-62,457,880,763	-2,539,316,067

Note:
 For dual-mode buses, allocate total VMT by percentage used for each fuel type (i.e. 50% diesel/50% electric)

Source:
 - Passenger and HDV from Regional Travel Demand Model
 - Bus and rail from system operating plans

Calculation:
 - New Start vs. No-Build = New Start VMT/year - No-Build VMT/year
 - New Start vs. TSM = New Start VMT/year - TSM VMT/year

Source:
 Transportation Energy Data Book Edition 16 (Bus factors assumed same for alternative fuels as for diesel)

Note:
 Transit agencies may provide their own estimates for transit vehicle BTU/mi factors. If so, documentation should be provided.

Calculation:
 Change in BTU/year = Change in VMT/year * BTU/veh-mi

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcroE

RUN: Topanga Cyn & Roscoe Existing

DATE : 9/22/ 4
TIME : 11:40:26

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 10.4 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1615.	10.9	.0	68.0	
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2076.	10.9	.0	56.0	
3. nbq	*	524.0	440.0	524.0	256.9	*	183.	180. AG	1755.	100.0	.0	48.0	.90 9.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	926.	10.9	.0	68.0	
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	549.	10.9	.0	44.0	
6. sbq	*	476.0	560.0	476.0	643.4	*	83.	360. AG	1755.	100.0	.0	48.0	.52 4.2
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	1676.	10.9	.0	80.0	
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1289.	10.9	.0	56.0	
9. ebq	*	452.0	470.0	397.0	470.0	*	55.	270. AG	997.	100.0	.0	60.0	.33 2.8
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	944.	10.9	.0	80.0	
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	1247.	10.9	.0	56.0	
12. wbq	*	548.0	530.0	578.8	530.0	*	31.	90. AG	997.	100.0	.0	60.0	.18 1.6

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcroE

RUN: Topanga Cyn & Roscoe Existing

DATE : 9/22/ 4
TIME : 11:40:26

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	* 100	66	4.0	1615	1600	247.80	3	3
6. sbq	* 100	66	4.0	926	1600	247.80	3	3
9. ebq	* 100	30	4.0	1676	1600	247.80	3	3
12. wbq	* 100	30	4.0	944	1600	247.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT) Y	Z	*
1. NW	*	432.0	580.0	5.5 *
2. NE	*	568.0	580.0	5.5 *
3. SW	*	432.0	420.0	5.5 *
4. SE	*	568.0	420.0	5.5 *

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM)			
	REC1	REC2	REC3	REC4
0.	10.6	10.8	14.8	12.9
10.	11.5	10.4	17.5	11.5
20.	12.8	10.4	16.1	11.1
30.	14.4	10.4	13.4	11.0
40.	15.9	10.4	13.0	11.0
50.	16.5	10.4	12.6	11.1
60.	16.3	10.4	12.5	11.2
70.	15.9	10.4	12.8	11.4
80.	15.7	10.4	14.1	11.2
90.	16.4	10.6	14.6	10.6
100.	16.8	11.1	14.4	10.4
110.	16.2	11.3	14.6	10.4
120.	14.4	11.2	14.5	10.4
130.	12.9	11.1	14.6	10.4
140.	13.1	11.1	15.1	10.4
150.	15.0	11.3	13.8	10.4
160.	16.3	11.7	11.9	10.4
170.	14.2	12.7	11.0	10.4
180.	13.1	15.7	10.5	11.3
190.	12.6	19.7	10.4	14.7
200.	11.9	16.7	10.4	18.0
210.	11.4	13.6	10.4	18.2
220.	11.2	12.9	10.4	17.2
230.	11.3	13.3	10.4	16.7
240.	11.4	13.2	10.4	16.3
250.	11.5	13.3	10.4	15.8
260.	11.2	14.4	10.4	15.6
270.	10.6	14.8	10.8	16.5
280.	10.4	14.6	11.5	17.6
290.	10.4	14.7	11.6	16.8
300.	10.4	14.0	11.7	14.5
310.	10.4	12.4	12.0	12.9
320.	10.4	11.7	12.5	13.1
330.	10.4	11.7	13.1	14.6
340.	10.4	11.9	13.7	14.6
350.	10.4	11.8	13.7	14.0
360.	10.6	10.8	14.8	12.9
MAX	16.8	19.7	17.5	18.2
DEGR.	100	190	10	210

THE HIGHEST CONCENTRATION OF 19.67 PPM OCCURRED AT RECEPTOR REC2 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\trcroR

RUN: Topanga Cyn & Roscoe 2020 Baseline

DATE : 9/22/ 4
TIME : 13: 7: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S ZO = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1912.	4.1	.0	68.0	
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2582.	4.1	.0	56.0	
3. nbq	*	524.0	440.0	524.0	335.5	*	105.	180. AG	368.	100.0	.0	48.0	.55 5.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2061.	4.1	.0	68.0	
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1741.	4.1	.0	44.0	
6. sbq	*	476.0	560.0	476.0	672.6	*	113.	360. AG	368.	100.0	.0	48.0	.60 5.7
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	2259.	4.1	.0	80.0	
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1670.	4.1	.0	56.0	
9. ebq	*	452.0	470.0	313.9	470.0	*	138.	270. AG	644.	100.0	.0	60.0	.74 7.0
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1264.	4.1	.0	80.0	
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	1503.	4.1	.0	56.0	
12. wbq	*	548.0	530.0	625.2	530.0	*	77.	90. AG	644.	100.0	.0	60.0	.41 3.9

JOB: C:\maytemp.dat\Orange Line CAL3QHC\trcroR

RUN: Topanga Cyn & Roscoe 2020 Baseline

DATE : 9/22/ 4
TIME : 13: 7: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	* 100	40	4.0	1912	1600	85.80	3	3
6. sbq	* 100	40	4.0	2061	1600	85.80	3	3
9. ebq	* 100	56	4.0	2259	1600	85.80	3	3
12. wbq	* 100	56	4.0	1264	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT) Y	Z	*
1. NW	* 432.0	580.0	5.5	*
2. NE	* 568.0	580.0	5.5	*
3. SW	* 432.0	420.0	5.5	*
4. SE	* 568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4
0.	5.3	5.3	7.6	6.8
10.	6.0	5.1	8.4	6.6
20.	6.5	5.1	7.7	6.4
30.	6.9	5.1	6.7	5.9
40.	6.9	5.1	6.5	5.5
50.	6.8	5.1	6.9	5.4
60.	6.6	5.1	6.8	5.5
70.	6.5	5.1	6.4	5.5
80.	6.5	5.1	6.5	5.5
90.	6.8	5.2	6.3	5.2
100.	7.6	5.5	6.2	5.1
110.	7.7	5.9	6.3	5.1
120.	6.9	6.3	6.2	5.1
130.	6.3	6.7	6.0	5.1
140.	6.3	7.0	5.7	5.1
150.	6.6	7.1	5.6	5.1
160.	6.9	7.0	5.6	5.1
170.	6.9	7.0	5.6	5.1
180.	6.8	7.4	5.2	5.3
190.	6.7	8.1	5.1	5.8
200.	6.8	7.5	5.1	6.2
210.	6.8	6.6	5.1	6.6
220.	6.6	6.5	5.1	6.8
230.	6.1	7.0	5.1	6.8
240.	5.6	7.3	5.1	6.5
250.	5.6	7.0	5.1	6.4
260.	5.5	6.6	5.1	6.4
270.	5.2	6.4	5.4	7.0
280.	5.1	6.3	6.2	8.3
290.	5.1	6.4	7.2	8.2
300.	5.1	6.4	7.8	6.9
310.	5.1	6.2	7.7	6.2
320.	5.1	6.0	7.5	6.3
330.	5.1	5.7	7.3	6.6
340.	5.1	5.9	7.1	7.0
350.	5.1	5.8	7.0	7.0
360.	5.3	5.3	7.6	6.8
MAX	7.7	8.1	8.4	8.3
DEGR.	110	190	10	280

THE HIGHEST CONCENTRATION OF 8.40 PPM OCCURRED AT RECEPTOR REC3 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\trcroR

RUN: Topanga Cyn & Roscoe RB3

DATE : 9/22/ 4

TIME : 13:18:16

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S ZO = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1912.	4.1	.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2573.	4.1	.0	56.0		
3. nbq	*	524.0	440.0	524.0	338.1	*	102.	180. AG	359.	100.0	.0	48.0	.54	5.2
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2058.	4.1	.0	68.0		
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1735.	4.1	.0	44.0		
6. sbq	*	476.0	560.0	476.0	669.6	*	110.	360. AG	359.	100.0	.0	48.0	.58	5.6
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	2243.	4.1	.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1661.	4.1	.0	56.0		
9. ebq	*	452.0	470.0	311.6	470.0	*	140.	270. AG	656.	100.0	.0	60.0	.76	7.1
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1250.	4.1	.0	80.0		
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	1494.	4.1	.0	56.0		
12. wbq	*	548.0	530.0	625.9	530.0	*	78.	90. AG	656.	100.0	.0	60.0	.42	4.0

JOB: C:\maytemp.dat\Orange Line CAL3QHC\trcroR

RUN: Topanga Cyn & Roscoe RB3

DATE : 9/22/ 4

TIME : 13:18:16

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	39	4.0	1912	1600	85.80	3	3
6. sbq	*	100	39	4.0	2058	1600	85.80	3	3
9. ebq	*	100	57	4.0	2243	1600	85.80	3	3
12. wbq	*	100	57	4.0	1250	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	580.0	5.5	*
2. NE	*	568.0	580.0	5.5	*
3. SW	*	432.0	420.0	5.5	*
4. SE	*	568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	5.3	5.3	7.6	6.8
10.	6.0	5.1	8.5	6.6
20.	6.5	5.1	7.6	6.5
30.	6.8	5.1	6.7	5.9
40.	6.9	5.1	6.5	5.5
50.	6.8	5.1	6.9	5.4
60.	6.6	5.1	6.8	5.5
70.	6.5	5.1	6.4	5.5
80.	6.4	5.1	6.5	5.5
90.	6.8	5.2	6.3	5.2
100.	7.6	5.5	6.2	5.1
110.	7.7	5.9	6.2	5.1
120.	6.9	6.3	6.2	5.1
130.	6.3	6.7	6.0	5.1
140.	6.3	7.0	5.7	5.1
150.	6.5	7.1	5.6	5.1
160.	6.9	7.0	5.6	5.1
170.	6.9	7.0	5.6	5.1
180.	6.8	7.4	5.2	5.3
190.	6.7	8.2	5.1	5.8
200.	6.8	7.5	5.1	6.2
210.	6.8	6.6	5.1	6.5
220.	6.6	6.5	5.1	6.8
230.	6.1	7.1	5.1	6.8
240.	5.6	7.4	5.1	6.5
250.	5.6	7.1	5.1	6.4
260.	5.5	6.6	5.1	6.3
270.	5.2	6.4	5.4	7.0
280.	5.1	6.3	6.2	8.4
290.	5.1	6.3	7.2	8.1
300.	5.1	6.3	7.8	6.9
310.	5.1	6.2	7.7	6.2
320.	5.1	5.9	7.6	6.3
330.	5.1	5.7	7.4	6.5
340.	5.1	5.9	7.1	6.9
350.	5.1	5.8	7.1	7.0
360.	5.3	5.3	7.6	6.8
MAX	7.7	8.2	8.5	8.4
DEGR.	110	190	10	280

THE HIGHEST CONCENTRATION OF 8.50 PPM OCCURRED AT RECEPTOR REC3 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\trcroR

RUN: Topanga Cyn & Roscoe RB3

DATE : 9/22/ 4

TIME : 12:35:53

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S ZO = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 10.4 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1912.	4.1	.0	68.0	
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2573.	4.1	.0	56.0	
3. nbq	*	524.0	440.0	524.0	338.1	*	102.	180. AG	359.	100.0	.0	48.0	.54 5.2
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2058.	4.1	.0	68.0	
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1735.	4.1	.0	44.0	
6. sbq	*	476.0	560.0	476.0	669.6	*	110.	360. AG	359.	100.0	.0	48.0	.58 5.6
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	2243.	4.1	.0	80.0	
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1661.	4.1	.0	56.0	
9. ebq	*	452.0	470.0	311.6	470.0	*	140.	270. AG	656.	100.0	.0	60.0	.76 7.1
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1250.	4.1	.0	80.0	
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	1494.	4.1	.0	56.0	
12. wbq	*	548.0	530.0	625.9	530.0	*	78.	90. AG	656.	100.0	.0	60.0	.42 4.0

JOB: C:\maytemp.dat\Orange Line CAL3QHC\trcroR

RUN: Topanga Cyn & Roscoe RB3

DATE : 9/22/ 4

TIME : 12:35:53

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	* 100	39	4.0	1912	1600	85.80	3	3
6. sbq	* 100	39	4.0	2058	1600	85.80	3	3
9. ebq	* 100	57	4.0	2243	1600	85.80	3	3
12. wbq	* 100	57	4.0	1250	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	432.0	580.0	5.5	*
2. NE	*	568.0	580.0	5.5	*
3. SW	*	432.0	420.0	5.5	*
4. SE	*	568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)			
	REC1	REC2	REC3	REC4
0.	10.6	10.6	12.9	12.1
10.	11.3	10.4	13.8	11.9
20.	11.8	10.4	12.9	11.8
30.	12.1	10.4	12.0	11.2
40.	12.2	10.4	11.8	10.8
50.	12.1	10.4	12.2	10.7
60.	11.9	10.4	12.1	10.8
70.	11.8	10.4	11.7	10.8
80.	11.7	10.4	11.8	10.8
90.	12.1	10.5	11.6	10.5
100.	12.9	10.8	11.5	10.4
110.	13.0	11.2	11.5	10.4
120.	12.2	11.6	11.5	10.4
130.	11.6	12.0	11.3	10.4
140.	11.6	12.3	11.0	10.4
150.	11.8	12.4	10.9	10.4
160.	12.2	12.3	10.9	10.4
170.	12.2	12.3	10.9	10.4
180.	12.1	12.7	10.5	10.6
190.	12.0	13.5	10.4	11.1
200.	12.1	12.8	10.4	11.5
210.	12.1	11.9	10.4	11.8
220.	11.9	11.8	10.4	12.1
230.	11.4	12.4	10.4	12.1
240.	10.9	12.7	10.4	11.8
250.	10.9	12.4	10.4	11.7
260.	10.8	11.9	10.4	11.6
270.	10.5	11.7	10.7	12.3
280.	10.4	11.6	11.5	13.7
290.	10.4	11.6	12.5	13.4
300.	10.4	11.6	13.1	12.2
310.	10.4	11.5	13.0	11.5
320.	10.4	11.2	12.9	11.6
330.	10.4	11.0	12.7	11.8
340.	10.4	11.2	12.4	12.2
350.	10.4	11.1	12.4	12.3
360.	10.6	10.6	12.9	12.1
MAX	13.0	13.5	13.8	13.7
DEGR.	110	190	10	280

THE HIGHEST CONCENTRATION OF 13.77 PPM OCCURRED AT RECEPTOR REC3 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\trcrR

RUN: Topanga Cyn & Roscoe RBN

DATE : 9/22/ 4
TIME : 13:27:24

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)			*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2									
1. nba	*	524.0	.0	524.0	500.0	360. AG	1909.	4.1	.0	68.0			
2. nbd	*	524.0	500.0	524.0	1000.0	360. AG	2583.	4.1	.0	56.0			
3. nbq	*	524.0	440.0	524.0	335.7	180. AG	368.	100.0	.0	48.0	.55	5.3	
4. sba	*	476.0	1000.0	476.0	500.0	180. AG	2073.	4.1	.0	68.0			
5. sbd	*	476.0	500.0	476.0	.0	180. AG	1752.	4.1	.0	44.0			
6. sbq	*	476.0	560.0	476.0	673.3	360. AG	368.	100.0	.0	48.0	.60	5.8	
7. eba	*	.0	470.0	500.0	470.0	90. AG	2279.	4.1	.0	80.0			
8. ebd	*	500.0	470.0	1000.0	470.0	90. AG	1685.	4.1	.0	56.0			
9. ebq	*	452.0	470.0	312.7	470.0	270. AG	644.	100.0	.0	60.0	.75	7.1	
10. wba	*	1000.0	530.0	500.0	530.0	270. AG	1269.	4.1	.0	80.0			
11. wbd	*	500.0	530.0	.0	530.0	270. AG	1510.	4.1	.0	56.0			
12. wbq	*	548.0	530.0	625.5	530.0	90. AG	644.	100.0	.0	60.0	.42	3.9	

JOB: C:\maytemp.dat\Orange Line CAL3QHC\trcrR

RUN: Topanga Cyn & Roscoe RBN

DATE : 9/22/ 4
TIME : 13:27:24

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	40	4.0	1909	1600	85.80	3	3
6. sbq	*	100	40	4.0	2073	1600	85.80	3	3
9. ebq	*	100	56	4.0	2279	1600	85.80	3	3
12. wbq	*	100	56	4.0	1269	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	580.0	5.5	*
2. NE	*	568.0	580.0	5.5	*
3. SW	*	432.0	420.0	5.5	*
4. SE	*	568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4
0.	5.3	5.3	7.6	6.8
10.	6.0	5.1	8.5	6.6
20.	6.5	5.1	7.7	6.4
30.	6.9	5.1	6.7	5.9
40.	6.9	5.1	6.5	5.5
50.	6.8	5.1	6.9	5.4
60.	6.6	5.1	6.8	5.5
70.	6.5	5.1	6.4	5.5
80.	6.5	5.1	6.5	5.5
90.	6.8	5.2	6.3	5.2
100.	7.6	5.5	6.2	5.1
110.	7.7	5.9	6.3	5.1
120.	6.9	6.3	6.2	5.1
130.	6.3	6.7	6.0	5.1
140.	6.3	7.0	5.7	5.1
150.	6.6	7.1	5.6	5.1
160.	6.9	7.0	5.6	5.1
170.	6.9	7.0	5.6	5.1
180.	6.8	7.4	5.2	5.3
190.	6.7	8.1	5.1	5.8
200.	6.8	7.5	5.1	6.2
210.	6.8	6.6	5.1	6.6
220.	6.6	6.5	5.1	6.8
230.	6.1	7.0	5.1	6.8
240.	5.6	7.4	5.1	6.5
250.	5.6	7.1	5.1	6.4
260.	5.5	6.6	5.1	6.4
270.	5.2	6.4	5.4	7.0
280.	5.1	6.3	6.2	8.3
290.	5.1	6.4	7.2	8.2
300.	5.1	6.4	7.8	6.9
310.	5.1	6.2	7.7	6.2
320.	5.1	6.0	7.5	6.3
330.	5.1	5.7	7.3	6.6
340.	5.1	5.9	7.1	7.0
350.	5.1	5.8	7.0	7.0
360.	5.3	5.3	7.6	6.8
MAX	7.7	8.1	8.5	8.3
DEGR.	110	190	10	280

THE HIGHEST CONCENTRATION OF 8.50 PPM OCCURRED AT RECEPTOR REC3 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviE

RUN: Topanga Cyn & Victory Blvd Existing

DATE : 9/22/ 4
TIME : 13:48:21

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 10.4 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1748.	10.9	.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1736.	10.9	.0	56.0		
3. nbq	*	524.0	440.0	524.0	365.9	*	74.	180. AG	824.	100.0	.0	48.0	.43	3.8
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1408.	10.9	.0	68.0		
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1551.	10.9	.0	44.0		
6. sbq	*	476.0	560.0	476.0	619.7	*	60.	360. AG	824.	100.0	.0	48.0	.35	3.0
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	1089.	10.9	.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1176.	10.9	.0	56.0		
9. ebq	*	452.0	470.0	374.9	470.0	*	77.	270. AG	2160.	100.0	.0	60.0	.47	3.9
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1422.	10.9	.0	80.0		
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	1204.	10.9	.0	56.0		
12. wbq	*	548.0	530.0	648.9	530.0	*	101.	90. AG	2160.	100.0	.0	60.0	.61	5.1

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviE

RUN: Topanga Cyn & Victory Blvd Existing

DATE : 9/22/ 4
TIME : 13:48:21

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	31	4.0	1748	1600	247.80	3	3
6. sbq	*	100	31	4.0	1408	1600	247.80	3	3
9. ebq	*	100	65	4.0	1089	1600	247.80	3	3
12. wbq	*	100	65	4.0	1422	1600	247.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	580.0	5.5	*
2. NE	*	568.0	580.0	5.5	*
3. SW	*	432.0	420.0	5.5	*
4. SE	*	568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	10.8	10.8	17.3	15.3
10.	11.6	10.4	18.4	14.9
20.	11.9	10.4	16.4	15.1
30.	12.1	10.4	14.3	14.6
40.	12.5	10.4	13.9	12.7
50.	12.9	10.4	15.6	11.5
60.	13.3	10.4	15.7	11.3
70.	13.4	10.4	14.0	11.4
80.	13.4	10.4	13.4	11.2
90.	14.6	10.7	13.1	10.6
100.	17.9	11.8	12.8	10.4
110.	18.1	13.9	12.8	10.4
120.	15.0	15.8	12.2	10.4
130.	12.8	17.3	11.6	10.4
140.	12.8	17.7	11.5	10.4
150.	13.3	17.1	11.6	10.4
160.	13.7	16.7	11.8	10.4
170.	14.7	16.5	11.5	10.4
180.	15.1	17.7	10.7	10.8
190.	14.8	18.9	10.4	11.7
200.	14.4	16.8	10.4	12.3
210.	12.8	14.4	10.4	12.7
220.	11.4	14.0	10.4	13.2
230.	11.1	15.4	10.4	13.7
240.	11.2	14.9	10.4	13.7
250.	11.3	13.3	10.4	13.4
260.	11.1	13.2	10.4	13.4
270.	10.6	13.0	10.6	14.3
280.	10.4	12.7	11.2	16.8
290.	10.4	12.3	12.4	17.3
300.	10.4	11.7	13.8	14.8
310.	10.4	11.4	15.1	12.7
320.	10.4	11.5	16.4	12.8
330.	10.4	11.6	16.8	13.2
340.	10.4	11.9	16.7	13.7
350.	10.4	11.6	16.4	14.9
360.	10.8	10.8	17.3	15.3
MAX	18.1	18.9	18.4	17.3
DEGR.	110	190	10	290

THE HIGHEST CONCENTRATION OF 18.87 PPM OCCURRED AT RECEPTOR REC2 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviN

RUN: Topanga Cyn & Victory Blvd 2020 Baseline

DATE : 9/22/ 4
TIME : 14: 0: 5

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S ZO = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	LINK COORDINATES (FT) Y1	X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	* 524.0	.0	524.0	500.0	* 500.	360. AG	2071.	4.1	.0	68.0		
2. nbd	* 524.0	500.0	524.0	1000.0	* 500.	360. AG	2115.	4.1	.0	56.0		
3. nbq	* 524.0	440.0	524.0	326.9	* 113.	180. AG	368.	100.0	.0	48.0	.60	5.7
4. sba	* 476.0	1000.0	476.0	500.0	* 500.	180. AG	1507.	4.1	.0	68.0		
5. sbd	* 476.0	500.0	476.0	.0	* 500.	180. AG	1783.	4.1	.0	44.0		
6. sbq	* 476.0	560.0	476.0	642.2	* 82.	360. AG	368.	100.0	.0	48.0	.44	4.2
7. eba	* .0	470.0	500.0	470.0	* 500.	90. AG	1468.	4.1	.0	80.0		
8. ebd	* 500.0	470.0	1000.0	470.0	* 500.	90. AG	1497.	4.1	.0	56.0		
9. ebq	* 452.0	470.0	362.3	470.0	* 90.	270. AG	644.	100.0	.0	60.0	.48	4.6
10. wba	* 1000.0	530.0	500.0	530.0	* 500.	270. AG	1904.	4.1	.0	80.0		
11. wbd	* 500.0	530.0	.0	530.0	* 500.	270. AG	1555.	4.1	.0	56.0		
12. wbq	* 548.0	530.0	664.4	530.0	* 116.	90. AG	644.	100.0	.0	60.0	.63	5.9

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviN

RUN: Topanga Cyn & Victory Blvd 2020 Baseline

DATE : 9/22/ 4
TIME : 14: 0: 5

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	* 100	40	4.0	2071	1600	85.80	3	3
6. sbq	* 100	40	4.0	1507	1600	85.80	3	3
9. ebq	* 100	56	4.0	1468	1600	85.80	3	3
12. wbq	* 100	56	4.0	1904	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT) Y	Z	* 5.5
1. NW	* 432.0	580.0	5.5	*
2. NE	* 568.0	580.0	5.5	*
3. SW	* 432.0	420.0	5.5	*
4. SE	* 568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.2	5.3	7.5	6.7
10.	5.6	5.1	8.0	6.6
20.	5.9	5.1	7.5	6.8
30.	6.2	5.1	6.6	6.7
40.	6.4	5.1	6.5	6.3
50.	6.6	5.1	6.9	5.7
60.	6.6	5.1	7.1	5.5
70.	6.5	5.1	6.7	5.6
80.	6.5	5.1	6.3	5.5
90.	7.0	5.3	6.3	5.2
100.	8.1	5.9	6.2	5.1
110.	8.1	6.7	6.3	5.1
120.	7.0	7.3	6.3	5.1
130.	6.1	7.6	6.1	5.1
140.	6.1	7.4	5.9	5.1
150.	6.5	7.2	5.6	5.1
160.	6.8	7.1	5.7	5.1
170.	6.8	7.0	5.6	5.1
180.	6.7	7.5	5.2	5.3
190.	6.6	8.4	5.1	5.9
200.	6.6	7.5	5.1	6.4
210.	6.2	6.6	5.1	6.8
220.	5.7	6.5	5.1	6.8
230.	5.4	7.0	5.1	6.8
240.	5.6	6.9	5.1	6.5
250.	5.6	6.4	5.1	6.4
260.	5.5	6.3	5.1	6.4
270.	5.2	6.2	5.2	6.8
280.	5.1	6.1	5.6	7.7
290.	5.1	6.1	6.1	7.7
300.	5.1	6.1	6.6	6.8
310.	5.1	5.7	7.0	6.2
320.	5.1	5.6	7.2	6.2
330.	5.1	5.7	7.2	6.5
340.	5.1	5.7	7.1	6.6
350.	5.1	5.7	7.0	6.9
360.	5.2	5.3	7.5	6.7
MAX	8.1	8.4	8.0	7.7
DEGR.	100	190	10	280

THE HIGHEST CONCENTRATION OF 8.40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviR

RUN: Topanga Cyn & Victory Blvd RB3

DATE : 9/22/ 4
TIME : 14: 8:52

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	LINK COORDINATES (FT)			* Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
1. nba	* 524.0	.0	524.0	500.0	* 500.0	360. AG	2089.	4.1	.0	68.0		
2. nbd	* 524.0	500.0	524.0	1000.0	* 500.0	360. AG	2129.	4.1	.0	56.0		
3. nbq	* 524.0	440.0	524.0	325.8	* 114.	180. AG	368.	100.0	.0	48.0	.60	5.8
4. sba	* 476.0	1000.0	476.0	500.0	* 500.	180. AG	1524.	4.1	.0	68.0		
5. sbd	* 476.0	500.0	476.0	.0	* 500.	180. AG	1795.	4.1	.0	44.0		
6. sbq	* 476.0	560.0	476.0	643.3	* 83.	360. AG	368.	100.0	.0	48.0	.44	4.2
7. eba	* .0	470.0	500.0	470.0	* 500.	90. AG	1464.	4.1	.0	80.0		
8. ebd	* 500.0	470.0	1000.0	470.0	* 500.	90. AG	1496.	4.1	.0	56.0		
9. ebq	* 452.0	470.0	362.6	470.0	* 89.	270. AG	644.	100.0	.0	60.0	.48	4.5
10. wba	* 1000.0	530.0	500.0	530.0	* 500.	270. AG	1892.	4.1	.0	80.0		
11. wbd	* 500.0	530.0	.0	530.0	* 500.	270. AG	1549.	4.1	.0	56.0		
12. wbq	* 548.0	530.0	663.7	530.0	* 116.	90. AG	644.	100.0	.0	60.0	.62	5.9

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviR

RUN: Topanga Cyn & Victory Blvd RB3

DATE : 9/22/ 4
TIME : 14: 8:52

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	* 100	40	4.0	2089	1600	85.80	3	3
6. sbq	* 100	40	4.0	1524	1600	85.80	3	3
9. ebq	* 100	56	4.0	1464	1600	85.80	3	3
12. wbq	* 100	56	4.0	1892	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT)		* Z
		Y		
1. NW	* 432.0	580.0	5.5	*
2. NE	* 568.0	580.0	5.5	*
3. SW	* 432.0	420.0	5.5	*
4. SE	* 568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	CONCENTRATION (PPM) REC2	CONCENTRATION (PPM) REC3	CONCENTRATION (PPM) REC4
0.	5.2	5.3	7.5	6.7
10.	5.6	5.1	8.0	6.6
20.	6.0	5.1	7.5	6.8
30.	6.2	5.1	6.6	6.7
40.	6.5	5.1	6.5	6.3
50.	6.6	5.1	6.9	5.7
60.	6.6	5.1	7.1	5.5
70.	6.5	5.1	6.7	5.6
80.	6.5	5.1	6.3	5.5
90.	7.0	5.3	6.3	5.2
100.	8.1	5.9	6.2	5.1
110.	8.1	6.7	6.3	5.1
120.	7.0	7.3	6.3	5.1
130.	6.1	7.6	6.1	5.1
140.	6.1	7.4	5.9	5.1
150.	6.5	7.2	5.7	5.1
160.	6.8	7.1	5.8	5.1
170.	6.8	7.0	5.6	5.1
180.	6.7	7.5	5.2	5.3
190.	6.6	8.4	5.1	5.9
200.	6.6	7.5	5.1	6.4
210.	6.2	6.7	5.1	6.8
220.	5.7	6.5	5.1	6.8
230.	5.4	7.0	5.1	6.8
240.	5.5	6.9	5.1	6.6
250.	5.6	6.4	5.1	6.5
260.	5.5	6.3	5.1	6.4
270.	5.2	6.2	5.2	6.8
280.	5.1	6.1	5.6	7.6
290.	5.1	6.1	6.1	7.7
300.	5.1	6.1	6.6	6.8
310.	5.1	5.7	7.0	6.2
320.	5.1	5.6	7.2	6.2
330.	5.1	5.7	7.2	6.5
340.	5.1	5.7	7.1	6.6
350.	5.1	5.7	7.0	6.9
360.	5.2	5.3	7.5	6.7
MAX	8.1	8.4	8.0	7.7
DEGR.	100	190	10	290

THE HIGHEST CONCENTRATION OF 8.40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviR

RUN: Topanga Cyn & Victory Blvd RB5

DATE : 9/22/ 4
 TIME : 14:21:44

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	2072.	4.1	.0	68.0	
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2114.	4.1	.0	56.0	
3. nbq	*	524.0	440.0	524.0	326.7	*	113.	180. AG	368.	100.0	.0	48.0	.60 5.8
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1512.	4.1	.0	68.0	
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1785.	4.1	.0	44.0	
6. sbq	*	476.0	560.0	476.0	642.7	*	83.	360. AG	368.	100.0	.0	48.0	.44 4.2
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	1448.	4.1	.0	80.0	
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1484.	4.1	.0	56.0	
9. ebq	*	452.0	470.0	363.5	470.0	*	88.	270. AG	644.	100.0	.0	60.0	.48 4.5
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1909.	4.1	.0	80.0	
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	1558.	4.1	.0	56.0	
12. wbq	*	548.0	530.0	664.7	530.0	*	117.	90. AG	644.	100.0	.0	60.0	.63 5.9

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviR

RUN: Topanga Cyn & Victory Blvd RB5

DATE : 9/22/ 4
 TIME : 14:21:44

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	40	4.0	2072	1600	85.80	3	3
6. sbq	*	100	40	4.0	1512	1600	85.80	3	3
9. ebq	*	100	56	4.0	1448	1600	85.80	3	3
12. wbq	*	100	56	4.0	1909	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	580.0	5.5	*
2. NE	*	568.0	580.0	5.5	*
3. SW	*	432.0	420.0	5.5	*
4. SE	*	568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.2	5.3	7.5	6.7
10.	5.6	5.1	8.0	6.6
20.	5.9	5.1	7.5	6.8
30.	6.2	5.1	6.6	6.7
40.	6.4	5.1	6.5	6.3
50.	6.6	5.1	6.9	5.8
60.	6.6	5.1	7.1	5.5
70.	6.5	5.1	6.6	5.6
80.	6.5	5.1	6.3	5.5
90.	7.0	5.3	6.3	5.2
100.	8.1	5.9	6.2	5.1
110.	8.1	6.7	6.3	5.1
120.	7.0	7.3	6.3	5.1
130.	6.2	7.6	6.1	5.1
140.	6.1	7.4	5.9	5.1
150.	6.5	7.2	5.6	5.1
160.	6.8	7.1	5.7	5.1
170.	6.8	7.0	5.6	5.1
180.	6.7	7.5	5.2	5.3
190.	6.6	8.4	5.1	5.9
200.	6.6	7.5	5.1	6.4
210.	6.2	6.6	5.1	6.8
220.	5.7	6.5	5.1	6.8
230.	5.4	7.0	5.1	6.8
240.	5.6	6.9	5.1	6.5
250.	5.6	6.4	5.1	6.4
260.	5.5	6.3	5.1	6.4
270.	5.2	6.2	5.2	6.8
280.	5.1	6.1	5.6	7.6
290.	5.1	6.1	6.1	7.7
300.	5.1	6.1	6.5	6.8
310.	5.1	5.7	6.9	6.2
320.	5.1	5.6	7.2	6.2
330.	5.1	5.7	7.2	6.5
340.	5.1	5.7	7.1	6.6
350.	5.1	5.7	7.0	6.9
360.	5.2	5.3	7.5	6.7
MAX	8.1	8.4	8.0	7.7
DEGR.	100	190	10	290

THE HIGHEST CONCENTRATION OF 8.40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviR

RUN: Topanga Cyn & Victory Blvd RBN

DATE : 9/22/ 4
TIME : 14:27:19

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	2065.	4.1	.0	68.0	
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2112.	4.1	.0	56.0	
3. nbq	*	524.0	440.0	524.0	327.1	*	113.	180. AG	368.	100.0	.0	48.0	.60 5.7
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1518.	4.1	.0	68.0	
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1794.	4.1	.0	44.0	
6. sbq	*	476.0	560.0	476.0	642.9	*	83.	360. AG	368.	100.0	.0	48.0	.44 4.2
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	1486.	4.1	.0	80.0	
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1511.	4.1	.0	56.0	
9. ebq	*	452.0	470.0	361.1	470.0	*	91.	270. AG	644.	100.0	.0	60.0	.49 4.6
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1906.	4.1	.0	80.0	
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	1558.	4.1	.0	56.0	
12. wbq	*	548.0	530.0	664.7	530.0	*	117.	90. AG	644.	100.0	.0	60.0	.63 5.9

JOB: C:\maytemp.dat\Orange Line CAL3QHC\tcviR

RUN: Topanga Cyn & Victory Blvd RBN

DATE : 9/22/ 4
TIME : 14:27:19

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	40	4.0	2065	1600	85.80	3	3
6. sbq	*	100	40	4.0	1518	1600	85.80	3	3
9. ebq	*	100	56	4.0	1486	1600	85.80	3	3
12. wbq	*	100	56	4.0	1906	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	580.0	5.5	*
2. NE	*	568.0	580.0	5.5	*
3. SW	*	432.0	420.0	5.5	*
4. SE	*	568.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	CONCENTRATION (PPM) REC2	CONCENTRATION (PPM) REC3	CONCENTRATION (PPM) REC4
0.	5.2	5.3	7.5	6.7
10.	5.6	5.1	8.0	6.6
20.	6.0	5.1	7.5	6.8
30.	6.2	5.1	6.6	6.7
40.	6.4	5.1	6.5	6.3
50.	6.6	5.1	6.9	5.8
60.	6.6	5.1	7.1	5.5
70.	6.5	5.1	6.7	5.6
80.	6.5	5.1	6.3	5.5
90.	7.0	5.3	6.3	5.2
100.	8.1	5.9	6.2	5.1
110.	8.1	6.7	6.3	5.1
120.	7.0	7.3	6.3	5.1
130.	6.2	7.6	6.1	5.1
140.	6.1	7.4	5.9	5.1
150.	6.5	7.2	5.6	5.1
160.	6.8	7.1	5.8	5.1
170.	6.8	7.0	5.6	5.1
180.	6.7	7.5	5.2	5.3
190.	6.6	8.3	5.1	5.9
200.	6.6	7.5	5.1	6.4
210.	6.2	6.6	5.1	6.8
220.	5.7	6.5	5.1	6.8
230.	5.4	7.0	5.1	6.8
240.	5.6	6.9	5.1	6.5
250.	5.6	6.4	5.1	6.5
260.	5.5	6.3	5.1	6.4
270.	5.2	6.2	5.2	6.8
280.	5.1	6.1	5.6	7.7
290.	5.1	6.1	6.2	7.7
300.	5.1	6.1	6.6	6.8
310.	5.1	5.7	7.0	6.2
320.	5.1	5.6	7.2	6.2
330.	5.1	5.7	7.2	6.5
340.	5.1	5.7	7.1	6.6
350.	5.1	5.7	7.0	6.9
360.	5.2	5.3	7.5	6.7
MAX	8.1	8.3	8.0	7.7
DEGR.	100	190	10	280

THE HIGHEST CONCENTRATION OF 8.30 PPM OCCURRED AT RECEPTOR REC2 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviE

RUN: Reseda Blvd & Victory Blvd Existing

DATE : 9/23/ 4
TIME : 16:20:30

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 10.4 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	882.	10.9	.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	974.	10.9	.0	56.0		
3. nbq	*	524.0	452.0	524.0	383.4	*	69.	180. AG	1515.	100.0	.0	48.0	.37	3.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1165.	10.9	.0	68.0		
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1050.	10.9	.0	44.0		
6. sbq	*	476.0	548.0	476.0	638.7	*	91.	360. AG	1515.	100.0	.0	48.0	.49	4.6
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	1530.	10.9	.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1529.	10.9	.0	56.0		
9. ebq	*	452.0	476.0	370.5	476.0	*	81.	270. AG	1037.	100.0	.0	48.0	.43	4.1
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1284.	10.9	.0	68.0		
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1308.	10.9	.0	44.0		
12. wbq	*	548.0	524.0	616.5	524.0	*	68.	90. AG	1037.	100.0	.0	48.0	.36	3.5

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviE

RUN: Reseda Blvd & Victory Blvd Existing

DATE : 9/23/ 4
TIME : 16:20:30

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	57	4.0	882	1600	247.80	3	3
6. sbq	*	100	57	4.0	1165	1600	247.80	3	3
9. ebq	*	100	39	4.0	1530	1600	247.80	3	3
12. wbq	*	100	39	4.0	1284	1600	247.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.5	*
2. NE	*	568.0	568.0	5.5	*
3. SW	*	432.0	432.0	5.5	*
4. SE	*	568.0	432.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	10.7	10.6	15.0	13.4	
10.	11.7	10.4	17.5	13.1	
20.	12.8	10.4	16.7	13.0	
30.	14.3	10.4	13.9	12.1	
40.	15.6	10.4	12.6	11.4	
50.	15.8	10.4	13.1	11.4	
60.	15.5	10.4	13.8	11.5	
70.	15.0	10.4	13.5	11.7	
80.	14.9	10.4	14.2	11.5	
90.	15.9	10.7	14.2	10.7	
100.	17.4	11.5	13.8	10.4	
110.	16.4	12.0	13.5	10.4	
120.	14.2	12.6	12.2	10.4	
130.	13.1	13.1	11.3	10.4	
140.	13.5	13.9	11.0	10.4	
150.	14.2	14.1	11.2	10.4	
160.	13.4	14.0	11.2	10.4	
170.	13.3	13.8	11.2	10.4	
180.	13.3	14.6	10.6	10.6	
190.	13.1	16.6	10.4	11.2	
200.	13.3	16.3	10.4	11.7	
210.	12.7	13.8	10.4	12.6	
220.	11.9	12.6	10.4	13.7	
230.	11.4	13.1	10.4	14.7	
240.	11.5	13.8	10.4	15.2	
250.	11.6	13.7	10.4	15.0	
260.	11.4	14.2	10.4	14.9	
270.	10.6	14.2	10.8	15.9	
280.	10.4	13.9	11.7	17.6	
290.	10.4	14.1	12.4	16.8	
300.	10.4	13.7	13.2	14.2	
310.	10.4	12.4	13.9	13.2	
320.	10.4	11.4	14.3	13.8	
330.	10.4	11.2	14.2	14.5	
340.	10.4	11.3	14.0	14.1	
350.	10.4	11.2	13.9	13.4	
360.	10.7	10.6	15.0	13.4	
MAX	17.4	16.6	17.5	17.6	
DEGR.	100	190	10	280	

THE HIGHEST CONCENTRATION OF 17.57 PPM OCCURRED AT RECEPTOR REC4 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviN

RUN: Reseda Blvd & Victory Blvd 2020 Baseline

DATE : 9/23/ 4
TIME : 16:33:31

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1046.	4.1	.0	68.0	
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1189.	4.1	.0	56.0	
3. nbq	*	524.0	452.0	524.0	348.7	*	103.	180. AG	654.	100.0	.0	48.0	.71 5.2
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1247.	4.1	.0	68.0	
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1164.	4.1	.0	44.0	
6. sbq	*	476.0	548.0	476.0	689.5	*	141.	360. AG	654.	100.0	.0	48.0	.85 7.2
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2062.	4.1	.0	68.0	
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2022.	4.1	.0	56.0	
9. ebq	*	452.0	476.0	381.6	476.0	*	70.	270. AG	230.	100.0	.0	48.0	.47 3.6
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1720.	4.1	.0	68.0	
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1700.	4.1	.0	44.0	
12. wbq	*	548.0	524.0	606.8	524.0	*	59.	90. AG	230.	100.0	.0	48.0	.39 3.0

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviN

RUN: Reseda Blvd & Victory Blvd 2020 Baseline

DATE : 9/23/ 4
TIME : 16:33:31

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	71	4.0	1046	1600	85.80	3	3
6. sbq	*	100	71	4.0	1247	1600	85.80	3	3
9. ebq	*	100	25	4.0	2062	1600	85.80	3	3
12. wbq	*	100	25	4.0	1720	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.5	*
2. NE	*	568.0	568.0	5.5	*
3. SW	*	432.0	432.0	5.5	*
4. SE	*	568.0	432.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4
0.	5.3	5.2	6.6	5.9
10.	6.2	5.1	8.1	5.8
20.	7.2	5.1	7.6	5.8
30.	7.7	5.1	6.3	5.6
40.	7.6	5.1	5.9	5.6
50.	7.5	5.1	6.0	5.6
60.	7.4	5.1	6.2	5.7
70.	7.1	5.1	6.2	5.7
80.	7.0	5.1	6.9	5.6
90.	7.4	5.3	6.7	5.3
100.	7.9	5.6	6.6	5.1
110.	7.4	5.8	6.6	5.1
120.	6.5	5.7	6.6	5.1
130.	6.2	5.9	6.3	5.1
140.	6.4	5.9	5.7	5.1
150.	6.9	6.1	5.4	5.1
160.	6.8	6.1	5.4	5.1
170.	6.3	6.1	5.4	5.1
180.	6.0	6.5	5.2	5.2
190.	5.9	7.7	5.1	5.7
200.	5.9	7.6	5.1	6.3
210.	5.7	6.3	5.1	7.1
220.	5.6	5.9	5.1	7.5
230.	5.5	6.0	5.1	7.4
240.	5.6	6.2	5.1	7.2
250.	5.7	6.3	5.1	7.1
260.	5.6	6.8	5.1	7.0
270.	5.2	6.7	5.3	7.4
280.	5.1	6.6	5.7	8.0
290.	5.1	6.7	5.9	7.5
300.	5.1	6.6	6.0	6.7
310.	5.1	6.7	6.0	6.2
320.	5.1	6.5	6.2	6.5
330.	5.1	5.8	6.1	7.0
340.	5.1	5.6	6.0	7.1
350.	5.1	5.5	6.0	6.3
360.	5.3	5.2	6.6	5.9
MAX	7.9	7.7	8.1	8.0
DEGR.	100	190	10	280

THE HIGHEST CONCENTRATION OF 8.10 PPM OCCURRED AT RECEPTOR REC3 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviR

RUN: Reseda Blvd & Victory Blvd RB3

DATE : 9/23/ 4
TIME : 16:41:22

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1046.	4.1	.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1187.	4.1	.0	56.0		
3. nbq	*	524.0	452.0	524.0	352.1	*	100.	180. AG	644.	100.0	.0	48.0	.68	5.1
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1245.	4.1	.0	68.0		
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1162.	4.1	.0	44.0		
6. sbq	*	476.0	548.0	476.0	680.5	*	133.	360. AG	644.	100.0	.0	48.0	.81	6.7
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2048.	4.1	.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2009.	4.1	.0	56.0		
9. ebq	*	452.0	476.0	379.2	476.0	*	73.	270. AG	239.	100.0	.0	48.0	.47	3.7
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1703.	4.1	.0	68.0		
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1684.	4.1	.0	44.0		
12. wbq	*	548.0	524.0	608.4	524.0	*	60.	90. AG	239.	100.0	.0	48.0	.39	3.1

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviR

RUN: Reseda Blvd & Victory Blvd RB3

DATE : 9/23/ 4
TIME : 16:41:22

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	70	4.0	1046	1600	85.80	3	3
6. sbq	*	100	70	4.0	1245	1600	85.80	3	3
9. ebq	*	100	26	4.0	2048	1600	85.80	3	3
12. wbq	*	100	26	4.0	1703	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.5	*
2. NE	*	568.0	568.0	5.5	*
3. SW	*	432.0	432.0	5.5	*
4. SE	*	568.0	432.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	CONCENTRATION (PPM) REC2	CONCENTRATION (PPM) REC3	CONCENTRATION (PPM) REC4
0.	5.3	5.2	6.5	5.9
10.	6.0	5.1	8.0	5.9
20.	7.0	5.1	7.5	5.8
30.	7.6	5.1	6.3	5.6
40.	7.6	5.1	5.9	5.6
50.	7.5	5.1	6.0	5.6
60.	7.3	5.1	6.2	5.6
70.	7.0	5.1	6.2	5.7
80.	7.0	5.1	6.9	5.6
90.	7.3	5.3	6.7	5.3
100.	7.8	5.6	6.5	5.1
110.	7.4	5.8	6.6	5.1
120.	6.5	5.7	6.5	5.1
130.	6.2	5.9	6.2	5.1
140.	6.4	6.0	5.7	5.1
150.	6.8	6.1	5.4	5.1
160.	6.7	6.2	5.4	5.1
170.	6.3	6.1	5.4	5.1
180.	6.0	6.5	5.2	5.2
190.	6.0	7.6	5.1	5.7
200.	5.9	7.6	5.1	6.2
210.	5.8	6.3	5.1	7.0
220.	5.6	5.8	5.1	7.4
230.	5.5	6.0	5.1	7.4
240.	5.6	6.3	5.1	7.2
250.	5.7	6.4	5.1	7.0
260.	5.6	6.8	5.1	7.0
270.	5.2	6.7	5.3	7.3
280.	5.1	6.5	5.7	7.9
290.	5.1	6.6	5.9	7.5
300.	5.1	6.6	6.0	6.7
310.	5.1	6.7	6.1	6.2
320.	5.1	6.3	6.1	6.5
330.	5.1	5.7	6.1	7.0
340.	5.1	5.6	6.0	7.0
350.	5.1	5.5	6.0	6.3
360.	5.3	5.2	6.5	5.9
MAX	7.8	7.6	8.0	7.9
DEGR.	100	190	10	280

THE HIGHEST CONCENTRATION OF 8.00 PPM OCCURRED AT RECEPTOR REC3 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviR

RUN: Reseda Blvd & Victory Blvd RB5

DATE : 9/23/ 4
TIME : 16:45: 6

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1046.	4.1	.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1188.	4.1	.0	56.0		
3. nbq	*	524.0	452.0	524.0	352.1	*	100.	180. AG	644.	100.0	.0	48.0	.68	5.1
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1250.	4.1	.0	68.0		
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1167.	4.1	.0	44.0		
6. sbq	*	476.0	548.0	476.0	681.4	*	133.	360. AG	644.	100.0	.0	48.0	.81	6.8
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2034.	4.1	.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1997.	4.1	.0	56.0		
9. ebq	*	452.0	476.0	379.8	476.0	*	72.	270. AG	239.	100.0	.0	48.0	.47	3.7
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1725.	4.1	.0	68.0		
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1703.	4.1	.0	44.0		
12. wbq	*	548.0	524.0	609.3	524.0	*	61.	90. AG	239.	100.0	.0	48.0	.40	3.1

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviR

RUN: Reseda Blvd & Victory Blvd RB5

DATE : 9/23/ 4
TIME : 16:45: 6

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	70	4.0	1046	1600	85.80	3	3
6. sbq	*	100	70	4.0	1250	1600	85.80	3	3
9. ebq	*	100	26	4.0	2034	1600	85.80	3	3
12. wbq	*	100	26	4.0	1725	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.5	*
2. NE	*	568.0	568.0	5.5	*
3. SW	*	432.0	432.0	5.5	*
4. SE	*	568.0	432.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)			
	REC1	REC2	REC3	REC4
0.	5.3	5.2	6.6	5.9
10.	6.1	5.1	8.0	5.9
20.	7.0	5.1	7.5	5.8
30.	7.6	5.1	6.3	5.6
40.	7.6	5.1	5.9	5.6
50.	7.5	5.1	6.1	5.6
60.	7.3	5.1	6.2	5.6
70.	7.0	5.1	6.2	5.7
80.	7.0	5.1	6.9	5.6
90.	7.3	5.3	6.7	5.3
100.	7.8	5.6	6.5	5.1
110.	7.4	5.8	6.6	5.1
120.	6.5	5.8	6.5	5.1
130.	6.2	5.9	6.2	5.1
140.	6.4	6.0	5.7	5.1
150.	6.8	6.1	5.4	5.1
160.	6.7	6.2	5.4	5.1
170.	6.3	6.1	5.4	5.1
180.	6.0	6.5	5.2	5.2
190.	6.0	7.6	5.1	5.7
200.	5.9	7.6	5.1	6.2
210.	5.8	6.3	5.1	7.0
220.	5.6	5.8	5.1	7.4
230.	5.5	6.0	5.1	7.4
240.	5.6	6.3	5.1	7.2
250.	5.7	6.4	5.1	7.0
260.	5.6	6.8	5.1	7.0
270.	5.2	6.7	5.3	7.3
280.	5.1	6.5	5.7	7.9
290.	5.1	6.6	5.9	7.5
300.	5.1	6.6	6.0	6.7
310.	5.1	6.7	6.1	6.2
320.	5.1	6.3	6.2	6.5
330.	5.1	5.7	6.1	7.0
340.	5.1	5.6	6.0	7.1
350.	5.1	5.5	6.0	6.3
360.	5.3	5.2	6.6	5.9
MAX	7.8	7.6	8.0	7.9
DEGR.	100	190	10	280

THE HIGHEST CONCENTRATION OF 8.00 PPM OCCURRED AT RECEPTOR REC3 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviR

RUN: Reseda Blvd & Victory Blvd RBN

DATE : 9/23/ 4
TIME : 16:50:18

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1047.	4.1	.0	68.0	
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1192.	4.1	.0	56.0	
3. nbq	*	524.0	452.0	524.0	338.5	*	113.	180. AG	672.	100.0	.0	48.0	.78 5.8
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1258.	4.1	.0	68.0	
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1177.	4.1	.0	44.0	
6. sbq	*	476.0	548.0	476.0	723.5	*	176.	360. AG	672.	100.0	.0	48.0	.93 8.9
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2081.	4.1	.0	68.0	
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2039.	4.1	.0	56.0	
9. ebq	*	452.0	476.0	386.6	476.0	*	65.	270. AG	212.	100.0	.0	48.0	.46 3.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1723.	4.1	.0	68.0	
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1701.	4.1	.0	44.0	
12. wbq	*	548.0	524.0	602.1	524.0	*	54.	90. AG	212.	100.0	.0	48.0	.38 2.7

JOB: C:\maytemp.dat\Orange Line CAL3QHC\reviR

RUN: Reseda Blvd & Victory Blvd RBN

DATE : 9/23/ 4
TIME : 16:50:18

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	73	4.0	1047	1600	85.80	3	3
6. sbq	*	100	73	4.0	1258	1600	85.80	3	3
9. ebq	*	100	23	4.0	2081	1600	85.80	3	3
12. wbq	*	100	23	4.0	1723	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.5	*
2. NE	*	568.0	568.0	5.5	*
3. SW	*	432.0	432.0	5.5	*
4. SE	*	568.0	432.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM)			
	REC1	REC2	REC3	REC4
0.	5.4	5.2	6.8	5.9
10.	6.6	5.1	8.3	5.8
20.	8.0	5.1	7.7	5.7
30.	8.0	5.1	6.3	5.7
40.	7.7	5.1	6.0	5.6
50.	7.6	5.1	6.1	5.6
60.	7.4	5.1	6.1	5.7
70.	7.1	5.1	6.2	5.7
80.	7.1	5.1	6.9	5.7
90.	7.3	5.3	6.7	5.3
100.	7.8	5.6	6.6	5.1
110.	7.4	5.8	6.7	5.1
120.	6.5	5.7	6.7	5.1
130.	6.3	5.8	6.5	5.1
140.	6.4	5.8	5.9	5.1
150.	7.1	6.0	5.5	5.1
160.	6.9	6.1	5.4	5.1
170.	6.3	6.1	5.4	5.1
180.	6.0	6.6	5.2	5.2
190.	5.9	7.7	5.1	5.8
200.	5.8	7.7	5.1	6.5
210.	5.7	6.3	5.1	7.4
220.	5.5	5.9	5.1	7.7
230.	5.5	6.1	5.1	7.5
240.	5.6	6.2	5.1	7.3
250.	5.7	6.3	5.1	7.1
260.	5.6	6.8	5.1	7.1
270.	5.2	6.7	5.3	7.4
280.	5.1	6.6	5.7	8.0
290.	5.1	6.7	5.8	7.4
300.	5.1	6.6	5.9	6.7
310.	5.1	6.8	5.9	6.2
320.	5.1	6.9	6.1	6.6
330.	5.1	6.3	6.1	7.1
340.	5.1	5.8	6.0	7.5
350.	5.1	5.5	6.0	6.4
360.	5.4	5.2	6.8	5.9
MAX	8.0	7.7	8.3	8.0
DEGR.	20	190	10	280

THE HIGHEST CONCENTRATION OF 8.30 PPM OCCURRED AT RECEPTOR REC3 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\sevir

RUN: Sepulveda & Victory Blvd RB3

DATE : 9/22/ 4
TIME : 17:35:30

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	536.0	.0	536.0	500.0	*	500.	360. AG	2643.	4.1	.0	92.0		
2. nbd	*	536.0	500.0	536.0	1000.0	*	500.	360. AG	2310.	4.1	.0	56.0		
3. nbq	*	536.0	440.0	536.0	285.3	*	155.	180. AG	829.	100.0	.0	72.0	.81	7.9
4. sba	*	464.0	1000.0	464.0	500.0	*	500.	180. AG	1265.	4.1	.0	92.0		
5. sbd	*	464.0	500.0	464.0	.0	*	500.	180. AG	1557.	4.1	.0	56.0		
6. sbq	*	464.0	560.0	464.0	628.9	*	69.	360. AG	829.	100.0	.0	72.0	.39	3.5
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	3419.	4.1	.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2933.	4.1	.0	56.0		
9. ebq	*	428.0	470.0	293.6	470.0	*	134.	270. AG	414.	100.0	.0	60.0	.74	6.8
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	3023.	4.1	.0	80.0		
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	3550.	4.1	.0	56.0		
12. wbq	*	572.0	530.0	690.9	530.0	*	119.	90. AG	414.	100.0	.0	60.0	.65	6.0

JOB: C:\maytemp.dat\Orange Line CAL3QHC\sevir

RUN: Sepulveda & Victory Blvd RB3

DATE : 9/22/ 4
TIME : 17:35:30

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	60	4.0	2643	1600	85.80	3	3
6. sbq	*	100	60	4.0	1265	1600	85.80	3	3
9. ebq	*	100	36	4.0	3419	1600	85.80	3	3
12. wbq	*	100	36	4.0	3023	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	408.0	580.0	5.5	*
2. NE	*	592.0	580.0	5.5	*
3. SW	*	408.0	420.0	5.5	*
4. SE	*	592.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	5.2	5.2	7.2	6.4	
10.	5.4	5.1	7.9	6.4	
20.	5.8	5.1	7.9	6.4	
30.	6.1	5.1	7.0	6.5	
40.	6.5	5.1	6.6	6.3	
50.	6.9	5.1	6.6	6.0	
60.	7.3	5.1	7.0	5.9	
70.	7.5	5.1	7.2	6.0	
80.	7.5	5.1	7.2	5.7	
90.	8.0	5.3	7.0	5.3	
100.	8.7	6.1	6.9	5.1	
110.	8.0	6.7	7.0	5.1	
120.	7.0	7.0	7.0	5.1	
130.	6.9	7.1	6.8	5.1	
140.	7.5	7.0	6.1	5.1	
150.	7.8	6.8	5.7	5.1	
160.	7.3	6.7	5.6	5.1	
170.	6.7	6.7	5.5	5.1	
180.	6.6	7.4	5.2	5.4	
190.	6.6	8.9	5.1	6.3	
200.	6.6	8.4	5.1	7.6	
210.	6.6	7.0	5.1	8.3	
220.	6.6	6.4	5.1	8.3	
230.	6.2	6.6	5.1	8.0	
240.	6.2	7.0	5.1	7.8	
250.	6.2	7.3	5.1	7.6	
260.	5.9	7.3	5.1	7.5	
270.	5.3	7.0	5.4	8.3	
280.	5.1	6.8	6.2	9.1	
290.	5.1	6.2	7.0	8.2	
300.	5.1	5.7	7.4	7.1	
310.	5.1	5.5	7.3	7.0	
320.	5.1	5.5	7.1	7.1	
330.	5.1	5.5	7.0	6.8	
340.	5.1	5.6	6.9	6.6	
350.	5.1	5.5	6.9	6.7	
360.	5.2	5.2	7.2	6.4	
MAX	8.7	8.9	7.9	9.1	
DEGR.	100	190	10	280	

THE HIGHEST CONCENTRATION OF 9.10 PPM OCCURRED AT RECEPTOR REC4 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\sevir

RUN: Sepulveda & Victory Blvd RB5

DATE : 9/22/ 4
TIME : 17:40: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S ZO = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)			*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2									
1. nba	*	536.0	.0	536.0	500.0	*	500.	360. AG	2647.	4.1	.0	92.0	
2. nbd	*	536.0	500.0	536.0	1000.0	*	500.	360. AG	2314.	4.1	.0	56.0	
3. nbq	*	536.0	440.0	536.0	284.6	*	155.	180. AG	829.	100.0	.0	72.0	.81 7.9
4. sba	*	464.0	1000.0	464.0	500.0	*	500.	180. AG	1268.	4.1	.0	92.0	
5. sbd	*	464.0	500.0	464.0	.0	*	500.	180. AG	1563.	4.1	.0	56.0	
6. sbq	*	464.0	560.0	464.0	629.2	*	69.	360. AG	829.	100.0	.0	72.0	.39 3.5
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	3432.	4.1	.0	80.0	
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2944.	4.1	.0	56.0	
9. ebq	*	428.0	470.0	293.0	470.0	*	135.	270. AG	414.	100.0	.0	60.0	.74 6.9
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	3044.	4.1	.0	80.0	
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	3570.	4.1	.0	56.0	
12. wbq	*	572.0	530.0	691.7	530.0	*	120.	90. AG	414.	100.0	.0	60.0	.66 6.1

JOB: C:\maytemp.dat\Orange Line CAL3QHC\sevir

RUN: Sepulveda & Victory Blvd RB5

DATE : 9/22/ 4
TIME : 17:40: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	60	4.0	2647	1600	85.80	3	3
6. sbq	*	100	60	4.0	1268	1600	85.80	3	3
9. ebq	*	100	36	4.0	3432	1600	85.80	3	3
12. wbq	*	100	36	4.0	3044	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	408.0	580.0	5.5	*
2. NE	*	592.0	580.0	5.5	*
3. SW	*	408.0	420.0	5.5	*
4. SE	*	592.0	420.0	5.5	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.2	5.2	7.2	6.4
10.	5.4	5.1	7.9	6.4
20.	5.8	5.1	7.9	6.5
30.	6.1	5.1	7.0	6.6
40.	6.5	5.1	6.6	6.3
50.	6.9	5.1	6.6	6.0
60.	7.3	5.1	7.0	5.9
70.	7.5	5.1	7.2	6.0
80.	7.5	5.1	7.2	5.7
90.	8.0	5.3	7.0	5.3
100.	8.7	6.1	6.9	5.1
110.	8.0	6.7	7.0	5.1
120.	7.0	7.0	7.0	5.1
130.	6.9	7.2	6.8	5.1
140.	7.5	7.0	6.2	5.1
150.	7.9	6.8	5.7	5.1
160.	7.3	6.7	5.6	5.1
170.	6.7	6.7	5.5	5.1
180.	6.6	7.4	5.2	5.4
190.	6.6	8.9	5.1	6.3
200.	6.6	8.4	5.1	7.6
210.	6.6	7.0	5.1	8.3
220.	6.6	6.4	5.1	8.3
230.	6.2	6.6	5.1	8.0
240.	6.2	7.0	5.1	7.8
250.	6.2	7.3	5.1	7.6
260.	5.9	7.3	5.1	7.5
270.	5.3	7.0	5.4	8.3
280.	5.1	6.8	6.2	9.1
290.	5.1	6.2	7.1	8.2
300.	5.1	5.7	7.4	7.1
310.	5.1	5.5	7.3	7.0
320.	5.1	5.5	7.1	7.2
330.	5.1	5.5	7.0	6.8
340.	5.1	5.6	6.9	6.6
350.	5.1	5.5	6.9	6.7
360.	5.2	5.2	7.2	6.4
MAX	8.7	8.9	7.9	9.1
DEGR.	100	190	10	280

THE HIGHEST CONCENTRATION OF 9.10 PPM OCCURRED AT RECEPTOR REC4 .

JOB: C:\maytemp.dat\Orange Line CAL3QHC\sevir

RUN: Sepulveda & Victory Blvd RBN

DATE : 9/22/ 4
TIME : 17:45:54

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	LINK COORDINATES (FT) Y1	X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	*	536.0	.0	536.0	500.0	*	500.	360. AG	2665.	4.1	.0	92.0
2. nbd	*	536.0	500.0	536.0	1000.0	*	500.	360. AG	2329.	4.1	.0	56.0
3. nbq	*	536.0	440.0	536.0	282.5	*	158.	180. AG	829.	100.0	.0	72.0
4. sba	*	464.0	1000.0	464.0	500.0	*	500.	180. AG	1283.	4.1	.0	92.0
5. sbd	*	464.0	500.0	464.0	.0	*	500.	180. AG	1574.	4.1	.0	56.0
6. sbq	*	464.0	560.0	464.0	629.9	*	70.	360. AG	829.	100.0	.0	72.0
7. eba	*	.0	470.0	500.0	470.0	*	500.	90. AG	3433.	4.1	.0	80.0
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2949.	4.1	.0	56.0
9. ebq	*	428.0	470.0	293.0	470.0	*	135.	270. AG	414.	100.0	.0	60.0
10. wba	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	3047.	4.1	.0	80.0
11. wbd	*	500.0	530.0	.0	530.0	*	500.	270. AG	3576.	4.1	.0	56.0
12. wbq	*	572.0	530.0	691.9	530.0	*	120.	90. AG	414.	100.0	.0	60.0

JOB: C:\maytemp.dat\Orange Line CAL3QHC\sevir

RUN: Sepulveda & Victory Blvd RBN

DATE : 9/22/ 4
TIME : 17:45:54

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	60	4.0	2665	1600	85.80	3 3
6. sbq	*	100	60	4.0	1283	1600	85.80	3 3
9. ebq	*	100	36	4.0	3433	1600	85.80	3 3
12. wbq	*	100	36	4.0	3047	1600	85.80	3 3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT) Y	Z	*
1. NW	*	408.0	580.0	5.5
2. NE	*	592.0	580.0	5.5
3. SW	*	408.0	420.0	5.5
4. SE	*	592.0	420.0	5.5

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	5.2	5.2	7.2	6.5	
10.	5.4	5.1	8.0	6.4	
20.	5.8	5.1	8.0	6.5	
30.	6.1	5.1	7.0	6.6	
40.	6.5	5.1	6.6	6.3	
50.	7.0	5.1	6.6	6.0	
60.	7.3	5.1	7.0	5.9	
70.	7.5	5.1	7.2	6.0	
80.	7.5	5.1	7.2	5.7	
90.	8.0	5.3	7.0	5.3	
100.	8.8	6.1	6.9	5.1	
110.	8.0	6.7	7.0	5.1	
120.	7.0	7.0	7.0	5.1	
130.	6.9	7.2	6.8	5.1	
140.	7.5	7.0	6.2	5.1	
150.	7.9	6.8	5.7	5.1	
160.	7.3	6.7	5.6	5.1	
170.	6.7	6.7	5.5	5.1	
180.	6.6	7.4	5.2	5.4	
190.	6.6	9.0	5.1	6.4	
200.	6.6	8.5	5.1	7.6	
210.	6.6	7.0	5.1	8.4	
220.	6.6	6.4	5.1	8.3	
230.	6.2	6.6	5.1	8.0	
240.	6.2	7.0	5.1	7.8	
250.	6.2	7.3	5.1	7.6	
260.	5.9	7.4	5.1	7.5	
270.	5.3	7.0	5.4	8.3	
280.	5.1	6.8	6.2	9.1	
290.	5.1	6.3	7.1	8.2	
300.	5.1	5.8	7.4	7.1	
310.	5.1	5.5	7.3	7.0	
320.	5.1	5.5	7.1	7.2	
330.	5.1	5.6	7.0	6.8	
340.	5.1	5.6	6.9	6.6	
350.	5.1	5.5	6.9	6.7	
360.	5.2	5.2	7.2	6.5	
MAX	8.8	9.0	8.0	9.1	
DEGR.	100	190	10	280	

THE HIGHEST CONCENTRATION OF 9.10 PPM OCCURRED AT RECEPTOR REC4 .

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviE

RUN: Van Nuys & Victory Blvd./Existing,2000

DATE : 9/22/ 4
TIME : 13:46:19

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S ZO = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 10.4 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	LINK COORDINATES (FT) Y1	X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1495.	10.9	.0	68.0
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1403.	10.9	.0	56.0
3. nbq	*	524.0	452.0	524.0	-160.3	*	612.	180. AG	1941.	100.0	.0	48.0
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1376.	10.9	.0	68.0
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1458.	10.9	.0	56.0
6. sbq	*	476.0	548.0	476.0	855.5	*	308.	360. AG	1941.	100.0	.0	48.0
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	1643.	10.9	.0	68.0
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1681.	10.9	.0	56.0
9. ebq	*	452.0	476.0	400.4	476.0	*	52.	270. AG	611.	100.0	.0	48.0
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1306.	10.9	.0	68.0
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1278.	10.9	.0	56.0
12. wbq	*	548.0	524.0	589.0	524.0	*	41.	90. AG	611.	100.0	.0	48.0

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviE

RUN: Van Nuys & Victory Blvd./Existing,2000

DATE : 9/22/ 4
TIME : 13:46:19

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	73	4.0	1495	1600	247.80	3 3
6. sbq	*	100	73	4.0	1376	1600	247.80	3 3
9. ebq	*	100	23	4.0	1643	1600	247.80	3 3
12. wbq	*	100	23	4.0	1306	1600	247.80	3 3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT) Y	Z	*	
1. NW	*	432.0	568.0	5.5	*
2. NE	*	568.0	568.0	5.5	*
3. SW	*	432.0	432.0	5.5	*
4. SE	*	568.0	432.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviE

RUN: Van Nuys & Victory Blvd./Existing,2000

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION	REC1	REC2	REC3	REC4
0.	*	12.7	10.7	16.5	13.0
10.	*	19.0	10.4	22.2	12.0
20.	*	20.7	10.4	18.2	11.4
30.	*	19.2	10.4	14.1	11.2
40.	*	18.1	10.4	12.7	11.3
50.	*	17.4	10.4	12.9	11.5
60.	*	16.9	10.4	13.1	11.6
70.	*	16.4	10.4	13.5	11.8
80.	*	16.2	10.4	15.0	11.6
90.	*	17.0	10.7	15.3	10.8
100.	*	17.9	11.5	14.9	10.4
110.	*	16.7	11.8	15.3	10.4
120.	*	14.6	11.5	15.2	10.4
130.	*	13.4	11.5	15.4	10.4
140.	*	14.4	11.6	16.2	10.4
150.	*	16.9	11.9	17.0	10.4
160.	*	19.3	12.4	18.0	10.4
170.	*	19.3	13.1	16.5	10.6
180.	*	13.9	19.0	11.4	15.6
190.	*	12.3	24.4	10.4	23.1
200.	*	11.8	18.4	10.4	21.3

210.	*	11.3	14.1	10.4	19.3
220.	*	11.3	12.9	10.4	18.2
230.	*	11.4	12.8	10.4	17.4
240.	*	11.5	13.1	10.4	17.0
250.	*	11.7	13.4	10.4	16.4
260.	*	11.4	14.8	10.4	16.2
270.	*	10.7	15.2	10.8	17.1
280.	*	10.4	14.9	11.7	18.1
290.	*	10.4	15.2	11.8	16.9
300.	*	10.4	15.1	11.8	14.8
310.	*	10.4	15.3	11.8	13.6
320.	*	10.4	16.2	12.1	14.4
330.	*	10.4	16.5	12.5	16.8
340.	*	10.4	15.9	12.8	18.5
350.	*	10.5	12.4	12.9	16.2
360.	*	12.7	10.7	16.5	13.0

MAX	*	20.7	24.4	22.2	23.1
DEGR.	*	20	190	10	190

THE HIGHEST CONCENTRATION OF 24.37 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 24.37 X 0.7 = 17.06 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviN

RUN: Van Nuys & Victory Blvd./Baseline,2020

DATE : 9/22/ 4
TIME : 13:49:19

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)			*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2									
1. nba	*	524.0	.0	524.0	500.0	360. AG	1949.	4.1	.0	68.0			
2. nbd	*	524.0	500.0	524.0	1000.0	360. AG	1854.	4.1	.0	56.0			
3. nbq	*	524.0	452.0	524.0	-2342.8	180. AG	727.	100.0	.0	48.0	2.03	142.0	
4. sba	*	476.0	1000.0	476.0	500.0	180. AG	1611.	4.1	.0	68.0			
5. sbd	*	476.0	500.0	476.0	.0	180. AG	1760.	4.1	.0	56.0			
6. sbq	*	476.0	548.0	476.0	2442.7	360. AG	727.	100.0	.0	48.0	1.67	96.3	
7. eba	*	.0	476.0	500.0	476.0	90. AG	2354.	4.1	.0	68.0			
8. ebd	*	500.0	476.0	1000.0	476.0	90. AG	2367.	4.1	.0	56.0			
9. ebq	*	452.0	476.0	397.3	476.0	55.	270. AG	156.	100.0	.0	48.0	.48	2.8
10. wba	*	1000.0	524.0	500.0	524.0	270. AG	1842.	4.1	.0	68.0			
11. wbd	*	500.0	524.0	.0	524.0	270. AG	1775.	4.1	.0	56.0			
12. wbq	*	548.0	524.0	590.8	524.0	43.	90. AG	156.	100.0	.0	48.0	.37	2.2

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviN

RUN: Van Nuys & Victory Blvd./Baseline,2020

DATE : 9/22/ 4
TIME : 13:49:19

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	79	4.0	1949	1600	85.80	3	3
6. sbq	*	100	79	4.0	1611	1600	85.80	3	3
9. ebq	*	100	17	4.0	2354	1600	85.80	3	3
12. wbq	*	100	17	4.0	1842	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.5	*
2. NE	*	568.0	568.0	5.5	*
3. SW	*	432.0	432.0	5.5	*
4. SE	*	568.0	432.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviN

RUN: Van Nuys & Victory Blvd./Baseline,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	* 9.0	6.7	9.8	7.7	
10.	* 10.7	5.1	10.9	5.8	
20.	* 9.3	5.1	8.3	5.7	
30.	* 8.5	5.1	6.7	5.6	
40.	* 8.0	5.1	6.3	5.6	
50.	* 7.8	5.1	6.2	5.7	
60.	* 7.7	5.1	6.1	5.7	
70.	* 7.5	5.1	6.6	5.8	
80.	* 7.4	5.1	7.3	5.7	
90.	* 7.7	5.3	7.1	5.3	
100.	* 8.0	5.7	6.9	5.1	
110.	* 7.7	5.8	7.0	5.1	
120.	* 6.9	5.7	7.0	5.1	
130.	* 6.5	5.6	7.0	5.1	
140.	* 6.8	5.6	7.4	5.1	
150.	* 7.6	5.7	7.6	5.1	
160.	* 8.7	5.8	8.3	5.1	
170.	* 9.8	6.1	9.0	5.3	
180.	* 8.1	10.3	7.2	9.5	
190.	* 5.8	11.1	5.1	10.8	
200.	* 5.7	8.2	5.1	9.3	

210.	*	5.5	6.9	5.1	8.5
220.	*	5.5	6.2	5.1	8.1
230.	*	5.6	6.1	5.1	7.9
240.	*	5.7	6.3	5.1	7.7
250.	*	5.8	6.4	5.1	7.5
260.	*	5.7	7.0	5.1	7.3
270.	*	5.2	6.9	5.3	7.7
280.	*	5.1	6.8	5.8	8.2
290.	*	5.1	6.9	5.8	7.6
300.	*	5.1	7.0	5.8	6.8
310.	*	5.1	6.9	5.7	6.6
320.	*	5.1	7.4	5.8	6.8
330.	*	5.1	7.6	6.0	7.7
340.	*	5.1	8.2	6.0	8.7
350.	*	5.3	8.8	6.1	9.8
360.	*	9.0	6.7	9.8	7.7

MAX	*	10.7	11.1	10.9	10.8
DEGR.	*	10	190	10	190

THE HIGHEST CONCENTRATION OF 11.10 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 11.10 X 0.7 = 7.77 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnnvIR

RUN: Van Nuys & Victory Blvd./RB3,2020

DATE : 9/22/ 4
TIME : 13:51: 4

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S ZO = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	Y1	X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
1. nba	524.0	.0	524.0	500.0	500.	360. AG	1942.	4.1	.0	68.0	
2. nbd	524.0	500.0	524.0	1000.0	500.	360. AG	1846.	4.1	.0	56.0	
3. nbq	524.0	452.0	524.0	-1664.0	2116.	180. AG	690.	100.0	.0	48.0	1.60 107.5
4. sba	476.0	1000.0	476.0	500.0	500.	180. AG	1598.	4.1	.0	68.0	
5. sbd	476.0	500.0	476.0	.0	500.	180. AG	1746.	4.1	.0	56.0	
6. sbq	476.0	548.0	476.0	1758.3	1210.	360. AG	690.	100.0	.0	48.0	1.31 61.5
7. eba	.0	476.0	500.0	476.0	500.	90. AG	2344.	4.1	.0	68.0	
8. ebd	500.0	476.0	1000.0	476.0	500.	90. AG	2356.	4.1	.0	56.0	
9. ebq	452.0	476.0	384.7	476.0	67.	270. AG	193.	100.0	.0	48.0	.50 3.4
10. wba	1000.0	524.0	500.0	524.0	500.	270. AG	1823.	4.1	.0	68.0	
11. wbd	500.0	524.0	.0	524.0	500.	270. AG	1759.	4.1	.0	56.0	
12. wbq	548.0	524.0	600.2	524.0	52.	90. AG	193.	100.0	.0	48.0	.39 2.7

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnnvIR

RUN: Van Nuys & Victory Blvd./RB3,2020

DATE : 9/22/ 4
TIME : 13:51: 4

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	100	75	4.0	1942	1600	85.80	3	3
6. sbq	100	75	4.0	1598	1600	85.80	3	3
9. ebq	100	21	4.0	2344	1600	85.80	3	3
12. wbq	100	21	4.0	1823	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	Y	Z	*
1. NW	432.0	568.0	5.5	*
2. NE	568.0	568.0	5.5	*
3. SW	432.0	432.0	5.5	*
4. SE	568.0	432.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnnvIR

RUN: Van Nuys & Victory Blvd./RB3,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	8.1	6.1	9.1	7.2	
10.	10.2	5.1	10.7	5.8	
20.	9.1	5.1	8.2	5.8	
30.	8.4	5.1	6.7	5.6	
40.	7.9	5.1	6.3	5.6	
50.	7.7	5.1	6.3	5.7	
60.	7.6	5.1	6.2	5.7	
70.	7.4	5.1	6.7	5.8	
80.	7.2	5.1	7.2	5.7	
90.	7.6	5.3	7.0	5.3	
100.	8.0	5.7	6.8	5.1	
110.	7.8	5.8	6.9	5.1	
120.	6.9	5.8	6.9	5.1	
130.	6.4	5.7	7.0	5.1	
140.	6.8	5.8	7.3	5.1	
150.	7.6	5.9	7.5	5.1	
160.	8.6	6.0	8.1	5.1	
170.	9.5	6.2	8.7	5.3	
180.	7.8	9.9	6.8	8.9	
190.	5.9	10.9	5.1	10.5	
200.	5.8	8.2	5.1	9.1	

210.	*	5.7	6.9	5.1	8.4
220.	*	5.5	6.2	5.1	8.0
230.	*	5.6	6.2	5.1	7.8
240.	*	5.7	6.4	5.1	7.6
250.	*	5.8	6.4	5.1	7.4
260.	*	5.7	6.9	5.1	7.2
270.	*	5.2	6.9	5.3	7.7
280.	*	5.1	6.7	5.8	8.2
290.	*	5.1	6.8	5.9	7.7
300.	*	5.1	6.8	5.9	6.8
310.	*	5.1	6.9	5.9	6.5
320.	*	5.1	7.3	6.1	6.8
330.	*	5.1	7.5	6.1	7.7
340.	*	5.1	8.0	6.1	8.6
350.	*	5.3	8.4	6.2	9.3
360.	*	8.1	6.1	9.1	7.2

MAX	*	10.2	10.9	10.7	10.5
DEGR.	*	10	190	10	190

THE HIGHEST CONCENTRATION OF 10.90 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 10.90 X 0.7 = 7.63 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnvnr

RUN: Van Nuys & Victory Blvd./RB5,2020

DATE : 9/22/ 4
TIME : 13:53: 9

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	LINK COORDINATES (FT) Y1	X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1950.	4.1	.0	68.0
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1855.	4.1	.0	56.0
3. nbq	*	524.0	452.0	524.0	-2177.8	*	2630.	180. AG	718.	100.0	.0	48.0 1.90 133.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1610.	4.1	.0	68.0
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1759.	4.1	.0	56.0
6. sbq	*	476.0	548.0	476.0	2279.0	*	1731.	360. AG	718.	100.0	.0	48.0 1.57 87.9
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2366.	4.1	.0	68.0
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2378.	4.1	.0	56.0
9. ebq	*	452.0	476.0	393.8	476.0	*	58.	270. AG	166.	100.0	.0	48.0 .49 3.0
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1848.	4.1	.0	68.0
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1782.	4.1	.0	56.0
12. wbq	*	548.0	524.0	593.5	524.0	*	45.	90. AG	166.	100.0	.0	48.0 .38 2.3

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnvnr

RUN: Van Nuys & Victory Blvd./RB5,2020

DATE : 9/22/ 4
TIME : 13:53: 9

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	78	4.0	1950	1600	85.80 3	3
6. sbq	*	100	78	4.0	1610	1600	85.80 3	3
9. ebq	*	100	18	4.0	2366	1600	85.80 3	3
12. wbq	*	100	18	4.0	1848	1600	85.80 3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT) Y	Z	*
1. NW	*	432.0	568.0	5.5 *
2. NE	*	568.0	568.0	5.5 *
3. SW	*	432.0	432.0	5.5 *
4. SE	*	568.0	432.0	5.5 *

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnvnr

RUN: Van Nuys & Victory Blvd./RB5,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	8.8	6.6	9.6	7.6
10.	*	10.6	5.1	10.8	5.8
20.	*	9.2	5.1	8.4	5.7
30.	*	8.5	5.1	6.7	5.6
40.	*	8.0	5.1	6.3	5.6
50.	*	7.8	5.1	6.2	5.7
60.	*	7.7	5.1	6.2	5.7
70.	*	7.5	5.1	6.7	5.8
80.	*	7.4	5.1	7.3	5.7
90.	*	7.6	5.3	7.1	5.3
100.	*	7.9	5.8	6.9	5.1
110.	*	7.7	5.8	7.0	5.1
120.	*	6.9	5.7	6.9	5.1
130.	*	6.4	5.7	7.0	5.1
140.	*	6.8	5.6	7.4	5.1
150.	*	7.6	5.8	7.6	5.1
160.	*	8.7	5.9	8.2	5.1
170.	*	9.7	6.1	8.9	5.3
180.	*	8.0	10.2	7.1	9.4
190.	*	5.8	11.0	5.1	10.8
200.	*	5.7	8.2	5.1	9.2

210.	*	5.6	6.9	5.1	8.5
220.	*	5.5	6.2	5.1	8.1
230.	*	5.6	6.1	5.1	7.9
240.	*	5.7	6.3	5.1	7.7
250.	*	5.8	6.4	5.1	7.5
260.	*	5.7	7.1	5.1	7.3
270.	*	5.2	6.9	5.3	7.6
280.	*	5.1	6.8	5.8	8.2
290.	*	5.1	6.9	5.8	7.6
300.	*	5.1	6.9	5.8	6.8
310.	*	5.1	6.9	5.9	6.5
320.	*	5.1	7.4	5.9	6.8
330.	*	5.1	7.6	6.0	7.7
340.	*	5.1	8.1	6.1	8.7
350.	*	5.3	8.8	6.1	9.7
360.	*	8.8	6.6	9.6	7.6

MAX	*	10.6	11.0	10.8	10.8
DEGR.	*	10	190	10	190

THE HIGHEST CONCENTRATION OF 11.00 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 11.00 X 0.7 = 7.7 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviR

RUN: Van Nuys & Victory Blvd./RBN,2020

DATE : 9/22/ 4
TIME : 13:56: 5

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	.0	524.0	500.0	*	500.	360. AG	1958.	4.1	.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1864.	4.1	.0	56.0		
3. nbq	*	524.0	452.0	524.0	-2364.0	*	2816.	180. AG	727.	100.0	.0	48.0	2.04	143.1
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1615.	4.1	.0	68.0		
5. sbd	*	476.0	500.0	476.0	.0	*	500.	180. AG	1764.	4.1	.0	56.0		
6. sbq	*	476.0	548.0	476.0	2453.3	*	1905.	360. AG	727.	100.0	.0	48.0	1.68	96.8
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2359.	4.1	.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2369.	4.1	.0	56.0		
9. ebq	*	452.0	476.0	397.2	476.0	*	55.	270. AG	156.	100.0	.0	48.0	.48	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1844.	4.1	.0	68.0		
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1779.	4.1	.0	56.0		
12. wbq	*	548.0	524.0	590.9	524.0	*	43.	90. AG	156.	100.0	.0	48.0	.37	2.2

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviR

RUN: Van Nuys & Victory Blvd./RBN,2020

DATE : 9/22/ 4
TIME : 13:56: 5

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
6. sbq	*	100	79	4.0	1615	1600	85.80	3	3
9. ebq	*	100	17	4.0	2359	1600	85.80	3	3
12. wbq	*	100	17	4.0	1844	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	432.0	568.0	5.5	*
2. NE	*	568.0	568.0	5.5	*
3. SW	*	432.0	432.0	5.5	*
4. SE	*	568.0	432.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\vnviR

RUN: Van Nuys & Victory Blvd./RBN,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	9.0	6.8	9.8	7.7
10.	*	10.7	5.1	10.9	5.8
20.	*	9.3	5.1	8.4	5.7
30.	*	8.5	5.1	6.7	5.6
40.	*	8.0	5.1	6.3	5.6
50.	*	7.8	5.1	6.2	5.7
60.	*	7.7	5.1	6.1	5.7
70.	*	7.5	5.1	6.6	5.8
80.	*	7.4	5.1	7.3	5.7
90.	*	7.7	5.3	7.1	5.3
100.	*	8.1	5.7	6.9	5.1
110.	*	7.7	5.8	7.0	5.1
120.	*	6.9	5.7	7.0	5.1
130.	*	6.5	5.6	7.0	5.1
140.	*	6.8	5.6	7.4	5.1
150.	*	7.6	5.7	7.6	5.1
160.	*	8.7	5.8	8.3	5.1
170.	*	9.8	6.1	9.0	5.3
180.	*	8.1	10.3	7.2	9.5
190.	*	5.8	11.1	5.1	10.8
200.	*	5.7	8.2	5.1	9.3

210.	*	5.5	6.9	5.1	8.5
220.	*	5.5	6.2	5.1	8.1
230.	*	5.6	6.1	5.1	7.9
240.	*	5.7	6.3	5.1	7.7
250.	*	5.8	6.4	5.1	7.5
260.	*	5.7	7.0	5.1	7.3
270.	*	5.2	6.9	5.3	7.7
280.	*	5.1	6.8	5.8	8.3
290.	*	5.1	6.9	5.8	7.6
300.	*	5.1	7.0	5.8	6.8
310.	*	5.1	6.9	5.7	6.6
320.	*	5.1	7.4	5.8	6.8
330.	*	5.1	7.6	6.0	7.7
340.	*	5.1	8.2	6.0	8.7
350.	*	5.3	8.8	6.1	9.8
360.	*	9.0	6.8	9.8	7.7

MAX	*	10.7	11.1	10.9	10.8
DEGR.	*	10	190	10	190

THE HIGHEST CONCENTRATION OF 11.10 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 11.10 X 0.7 = 7.77 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviE

RUN: Laurel Cyn & Victory Blvd./Existing,2000

DATE : 9/22/ 4
TIME : 14: 0:22

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 10.4 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	Y1	X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	* 518.0	.0	518.0	500.0	* 500.	360. AG	1115.	10.9	.0	56.0		
2. nbd	* 518.0	500.0	518.0	1000.0	* 500.	360. AG	1202.	10.9	.0	44.0		
3. nbq	* 518.0	452.0	518.0	332.3	* 120.	180. AG	1176.	100.0	.0	36.0	.66	6.1
4. sba	* 482.0	1000.0	482.0	500.0	* 500.	180. AG	1026.	10.9	.0	56.0		
5. sbd	* 482.0	500.0	482.0	.0	* 500.	180. AG	1016.	10.9	.0	44.0		
6. sbq	* 482.0	548.0	482.0	658.3	* 110.	360. AG	1176.	100.0	.0	36.0	.61	5.6
7. eba	* .0	476.0	500.0	476.0	* 500.	90. AG	1650.	10.9	.0	68.0		
8. ebd	* 500.0	476.0	1000.0	476.0	* 500.	90. AG	1374.	10.9	.0	56.0		
9. ebq	* 464.0	476.0	380.6	476.0	* 83.	270. AG	984.	100.0	.0	48.0	.45	4.2
10. wba	* 1000.0	524.0	500.0	524.0	* 500.	270. AG	1645.	10.9	.0	68.0		
11. wbd	* 500.0	524.0	.0	524.0	* 500.	270. AG	1844.	10.9	.0	56.0		
12. wbq	* 536.0	524.0	619.2	524.0	* 83.	90. AG	984.	100.0	.0	48.0	.45	4.2

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviE

RUN: Laurel Cyn & Victory Blvd./Existing,2000

DATE : 9/22/ 4
TIME : 14: 0:22

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	* 100	59	4.0	1115	1600	247.80	3	3
6. sbq	* 100	59	4.0	1026	1600	247.80	3	3
9. ebq	* 100	37	4.0	1650	1600	247.80	3	3
12. wbq	* 100	37	4.0	1645	1600	247.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	Y	Z	* COORDINATES (FT)
1. NW	* 444.0	568.0	5.5	* 5.5
2. NE	* 556.0	568.0	5.5	* 5.5
3. SW	* 444.0	432.0	5.5	* 5.5
4. SE	* 556.0	432.0	5.5	* 5.5

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviE

RUN: Laurel Cyn & Victory Blvd./Existing,2000

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	* 10.7	10.7	15.3	13.5	
10.	* 12.1	10.4	17.7	13.1	
20.	* 13.9	10.4	16.3	13.2	
30.	* 15.0	10.4	13.8	12.7	
40.	* 15.1	10.4	13.4	11.9	
50.	* 14.9	10.4	13.9	11.5	
60.	* 14.6	10.4	13.9	11.5	
70.	* 14.3	10.4	13.6	11.8	
80.	* 14.1	10.4	14.2	11.5	
90.	* 15.0	10.8	13.9	10.7	
100.	* 17.2	11.9	13.4	10.4	
110.	* 17.2	12.6	13.6	10.4	
120.	* 15.0	13.3	13.5	10.4	
130.	* 13.3	13.9	13.7	10.4	
140.	* 12.9	14.3	13.2	10.4	
150.	* 14.2	14.1	12.1	10.4	
160.	* 15.0	13.9	11.5	10.4	
170.	* 14.4	13.8	11.3	10.4	
180.	* 13.6	15.2	10.7	10.8	
190.	* 13.2	17.8	10.4	12.4	
200.	* 13.3	16.2	10.4	14.3	

210.	*	12.9	13.6	10.4	15.3
220.	*	12.1	13.3	10.4	15.2
230.	*	11.7	14.0	10.4	14.9
240.	*	11.7	14.1	10.4	14.7
250.	*	12.0	14.0	10.4	14.3
260.	*	11.8	14.6	10.4	14.0
270.	*	10.8	14.0	10.8	15.1
280.	*	10.4	13.4	11.9	17.2
290.	*	10.4	13.7	12.7	17.2
300.	*	10.4	13.6	13.5	15.1
310.	*	10.4	13.6	14.0	13.2
320.	*	10.4	12.9	14.4	12.9
330.	*	10.4	11.9	14.2	14.1
340.	*	10.4	11.5	14.0	14.8
350.	*	10.4	11.5	13.9	14.3
360.	*	10.7	10.7	15.3	13.5
-----*					
MAX	*	17.2	17.8	17.7	17.2
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION OF 17.77 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 17.77 X 0.7 = 12.44 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviN

RUN: Laurel Cyn & Victory Blvd./Baseline,2020

DATE : 9/22/ 4
TIME : 14: 2:27

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S ZO = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)			*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2								
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1455.	4.1	.0	56.0
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1614.	4.1	.0	44.0
3. nbq	*	518.0	452.0	518.0	-3852.2	*	4304.	180. AG	608.	100.0	.0	36.0 5.05 218.7
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1202.	4.1	.0	56.0
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1281.	4.1	.0	44.0
6. sbq	*	482.0	548.0	482.0	3932.3	*	3384.	360. AG	608.	100.0	.0	36.0 4.17 171.9
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2363.	4.1	.0	68.0
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1927.	4.1	.0	56.0
9. ebq	*	464.0	476.0	438.2	476.0	*	26.	270. AG	74.	100.0	.0	48.0 .43 1.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2318.	4.1	.0	68.0
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	2516.	4.1	.0	56.0
12. wbq	*	536.0	524.0	561.3	524.0	*	25.	90. AG	74.	100.0	.0	48.0 .42 1.3

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviN

RUN: Laurel Cyn & Victory Blvd./Baseline,2020

DATE : 9/22/ 4
TIME : 14: 2:27

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	88	4.0	1455	1600	85.80	3	3
6. sbq	*	100	88	4.0	1202	1600	85.80	3	3
9. ebq	*	100	8	4.0	2363	1600	85.80	3	3
12. wbq	*	100	8	4.0	2318	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	568.0	5.5	*
2. NE	*	556.0	568.0	5.5	*
3. SW	*	444.0	432.0	5.5	*
4. SE	*	556.0	432.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviN

RUN: Laurel Cyn & Victory Blvd./Baseline,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	9.1	7.5	9.9	8.1
10.	*	10.0	5.2	10.0	5.6
20.	*	8.7	5.1	7.5	5.5
30.	*	8.0	5.1	6.3	5.5
40.	*	7.6	5.1	5.9	5.6
50.	*	7.5	5.1	6.1	5.6
60.	*	7.4	5.1	6.2	5.7
70.	*	7.1	5.1	6.4	5.8
80.	*	6.9	5.1	7.0	5.7
90.	*	7.3	5.3	6.8	5.3
100.	*	7.7	5.8	6.6	5.1
110.	*	7.5	5.8	6.6	5.1
120.	*	6.9	5.7	6.7	5.1
130.	*	6.4	5.6	6.8	5.1
140.	*	6.4	5.6	7.1	5.1
150.	*	7.1	5.6	7.3	5.1
160.	*	8.1	5.6	7.8	5.1
170.	*	9.3	5.9	8.7	5.3
180.	*	8.4	10.1	7.7	9.5
190.	*	5.7	10.1	5.2	10.0
200.	*	5.6	7.5	5.1	8.7

210.	*	5.6	6.4	5.1	8.1
220.	*	5.6	5.9	5.1	7.5
230.	*	5.7	6.0	5.1	7.4
240.	*	5.8	6.3	5.1	7.3
250.	*	5.9	6.6	5.1	7.1
260.	*	5.9	7.2	5.1	7.0
270.	*	5.3	6.9	5.3	7.4
280.	*	5.1	6.7	5.9	7.8
290.	*	5.1	6.7	5.9	7.6
300.	*	5.1	6.7	5.8	6.9
310.	*	5.1	6.8	5.7	6.4
320.	*	5.1	7.0	5.6	6.4
330.	*	5.1	7.4	5.6	7.0
340.	*	5.1	7.8	5.6	8.1
350.	*	5.3	8.7	5.9	9.4
360.	*	9.1	7.5	9.9	8.1

MAX	*	10.0	10.1	10.0	10.0
DEGR.	*	10	180	10	190

THE HIGHEST CONCENTRATION OF 10.10 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 10.10 X 0.7 = 7.07 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcvir

RUN: Laurel Cyn & Victory Blvd./RB3,2020

DATE : 9/22/ 4
TIME : 14: 5:12

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1449.	4.1	.0	56.0	
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1606.	4.1	.0	44.0	
3. nbq	*	518.0	452.0	518.0	-3305.8	*	3758.	180. AG	587.	100.0	.0	36.0	3.35 190.9
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1192.	4.1	.0	56.0	
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1271.	4.1	.0	44.0	
6. sbq	*	482.0	548.0	482.0	3384.3	*	2836.	360. AG	587.	100.0	.0	36.0	2.76 144.1
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2354.	4.1	.0	68.0	
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1919.	4.1	.0	56.0	
9. ebq	*	464.0	476.0	428.6	476.0	*	35.	270. AG	101.	100.0	.0	48.0	.44 1.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2294.	4.1	.0	68.0	
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	2493.	4.1	.0	56.0	
12. wbq	*	536.0	524.0	570.5	524.0	*	34.	90. AG	101.	100.0	.0	48.0	.43 1.8

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcvir

RUN: Laurel Cyn & Victory Blvd./RB3,2020

DATE : 9/22/ 4
TIME : 14: 5:12

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	85	4.0	1449	1600	85.80	3	3
6. sbq	*	100	85	4.0	1192	1600	85.80	3	3
9. ebq	*	100	11	4.0	2354	1600	85.80	3	3
12. wbq	*	100	11	4.0	2294	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	568.0	5.5	*
2. NE	*	556.0	568.0	5.5	*
3. SW	*	444.0	432.0	5.5	*
4. SE	*	556.0	432.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcvir

RUN: Laurel Cyn & Victory Blvd./RB3,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	* 8.8	7.3	9.7	7.9	
10.	* 9.9	5.2	10.0	5.7	
20.	* 8.5	5.1	7.6	5.5	
30.	* 7.9	5.1	6.3	5.5	
40.	* 7.6	5.1	6.0	5.6	
50.	* 7.4	5.1	6.1	5.6	
60.	* 7.3	5.1	6.3	5.7	
70.	* 7.0	5.1	6.3	5.8	
80.	* 6.9	5.1	7.0	5.7	
90.	* 7.2	5.3	6.7	5.3	
100.	* 7.8	5.8	6.5	5.1	
110.	* 7.5	5.8	6.6	5.1	
120.	* 6.8	5.7	6.6	5.1	
130.	* 6.4	5.6	6.7	5.1	
140.	* 6.4	5.6	7.0	5.1	
150.	* 7.1	5.7	7.2	5.1	
160.	* 8.1	5.7	7.7	5.1	
170.	* 9.2	6.0	8.6	5.3	
180.	* 8.3	10.0	7.4	9.2	
190.	* 5.8	10.1	5.2	9.9	
200.	* 5.6	7.6	5.1	8.5	

210.	*	5.6	6.3	5.1	8.0
220.	*	5.6	6.0	5.1	7.5
230.	*	5.7	6.0	5.1	7.3
240.	*	5.8	6.4	5.1	7.2
250.	*	5.9	6.5	5.1	7.0
260.	*	5.9	7.2	5.1	7.0
270.	*	5.3	6.9	5.3	7.3
280.	*	5.1	6.6	5.9	7.9
290.	*	5.1	6.7	5.9	7.6
300.	*	5.1	6.6	5.8	6.9
310.	*	5.1	6.7	5.7	6.4
320.	*	5.1	6.9	5.6	6.4
330.	*	5.1	7.3	5.7	7.0
340.	*	5.1	7.7	5.7	8.1
350.	*	5.3	8.6	6.0	9.3
360.	*	8.8	7.3	9.7	7.9

MAX	*	9.9	10.1	10.0	9.9
DEGR.	*	10	190	10	190

THE HIGHEST CONCENTRATION OF 10.10 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 10.10 X 0.7 = 7.07 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviR

RUN: Laurel Cyn & Victory Blvd./RB5,2020

DATE : 9/22/ 4
TIME : 14: 7:26

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)			*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2									
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1450.	4.1	.0	56.0	
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1610.	4.1	.0	44.0	
3. nbq	*	518.0	452.0	518.0	-3477.9	*	3930.	180. AG	594.	100.0	.0	36.0	3.77 199.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1194.	4.1	.0	56.0	
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1275.	4.1	.0	44.0	
6. sbq	*	482.0	548.0	482.0	3564.6	*	3017.	360. AG	594.	100.0	.0	36.0	3.11 153.2
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2363.	4.1	.0	68.0	
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1926.	4.1	.0	56.0	
9. ebq	*	464.0	476.0	431.7	476.0	*	32.	270. AG	92.	100.0	.0	48.0	.44 1.6
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2310.	4.1	.0	68.0	
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	2506.	4.1	.0	56.0	
12. wbq	*	536.0	524.0	567.6	524.0	*	32.	90. AG	92.	100.0	.0	48.0	.43 1.6

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviR

RUN: Laurel Cyn & Victory Blvd./RB5,2020

DATE : 9/22/ 4
TIME : 14: 7:26

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	86	4.0	1450	1600	85.80	3	3
6. sbq	*	100	86	4.0	1194	1600	85.80	3	3
9. ebq	*	100	10	4.0	2363	1600	85.80	3	3
12. wbq	*	100	10	4.0	2310	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	568.0	5.5	*
2. NE	*	556.0	568.0	5.5	*
3. SW	*	444.0	432.0	5.5	*
4. SE	*	556.0	432.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviR

RUN: Laurel Cyn & Victory Blvd./RB5,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	8.9	7.4	9.7	7.9
10.	*	9.9	5.2	9.9	5.7
20.	*	8.6	5.1	7.6	5.5
30.	*	7.9	5.1	6.3	5.5
40.	*	7.6	5.1	5.9	5.6
50.	*	7.4	5.1	6.1	5.6
60.	*	7.3	5.1	6.2	5.7
70.	*	7.1	5.1	6.3	5.8
80.	*	6.9	5.1	7.0	5.7
90.	*	7.2	5.3	6.7	5.3
100.	*	7.8	5.8	6.5	5.1
110.	*	7.5	5.8	6.6	5.1
120.	*	6.8	5.7	6.6	5.1
130.	*	6.4	5.6	6.8	5.1
140.	*	6.4	5.6	7.0	5.1
150.	*	7.1	5.6	7.2	5.1
160.	*	8.1	5.7	7.7	5.1
170.	*	9.2	6.0	8.6	5.3
180.	*	8.2	9.9	7.5	9.3
190.	*	5.8	10.1	5.2	9.9
200.	*	5.6	7.6	5.1	8.6

210.	*	5.6	6.4	5.1	8.0
220.	*	5.6	5.9	5.1	7.5
230.	*	5.7	6.0	5.1	7.3
240.	*	5.8	6.3	5.1	7.2
250.	*	5.9	6.5	5.1	7.1
260.	*	5.9	7.2	5.1	7.0
270.	*	5.3	6.9	5.3	7.3
280.	*	5.1	6.6	5.9	7.9
290.	*	5.1	6.7	5.9	7.6
300.	*	5.1	6.6	5.8	6.9
310.	*	5.1	6.8	5.7	6.4
320.	*	5.1	6.9	5.6	6.4
330.	*	5.1	7.3	5.6	7.0
340.	*	5.1	7.7	5.7	8.1
350.	*	5.3	8.6	6.0	9.3
360.	*	8.9	7.4	9.7	7.9

MAX	*	9.9	10.1	9.9	9.9
DEGR.	*	10	190	10	190

THE HIGHEST CONCENTRATION OF 10.10 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 10.10 X 0.7 = 7.07 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviR

RUN: Laurel Cyn & Victory Blvd./RBN,2020

DATE : 9/22/ 4
TIME : 14: 9:13

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1463.	4.1	.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1620.	4.1	.0	44.0		
3. nbq	*	518.0	452.0	518.0	-3873.9	*	4326.	180. AG	608.	100.0	.0	36.0	5.07	219.8
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1206.	4.1	.0	56.0		
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1285.	4.1	.0	44.0		
6. sbq	*	482.0	548.0	482.0	3953.9	*	3406.	360. AG	608.	100.0	.0	36.0	4.19	173.0
7. eba	*	.0	476.0	500.0	476.0	*	500.	90. AG	2363.	4.1	.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1930.	4.1	.0	56.0		
9. ebq	*	464.0	476.0	438.2	476.0	*	26.	270. AG	74.	100.0	.0	48.0	.43	1.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2315.	4.1	.0	68.0		
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	2512.	4.1	.0	56.0		
12. wbq	*	536.0	524.0	561.3	524.0	*	25.	90. AG	74.	100.0	.0	48.0	.42	1.3

PAGE 2

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviR

RUN: Laurel Cyn & Victory Blvd./RBN,2020

DATE : 9/22/ 4
TIME : 14: 9:13

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	88	4.0	1463	1600	85.80	3	3
6. sbq	*	100	88	4.0	1206	1600	85.80	3	3
9. ebq	*	100	8	4.0	2363	1600	85.80	3	3
12. wbq	*	100	8	4.0	2315	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	568.0	5.5	*
2. NE	*	556.0	568.0	5.5	*
3. SW	*	444.0	432.0	5.5	*
4. SE	*	556.0	432.0	5.5	*

PAGE 3

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\lcviR

RUN: Laurel Cyn & Victory Blvd./RBN,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	* 9.1	7.5	9.9	8.1	
10.	* 10.0	5.2	10.0	5.6	
20.	* 8.7	5.1	7.5	5.5	
30.	* 8.0	5.1	6.3	5.5	
40.	* 7.6	5.1	5.9	5.6	
50.	* 7.5	5.1	6.1	5.6	
60.	* 7.4	5.1	6.2	5.7	
70.	* 7.1	5.1	6.4	5.8	
80.	* 6.9	5.1	7.0	5.7	
90.	* 7.3	5.3	6.8	5.3	
100.	* 7.7	5.8	6.6	5.1	
110.	* 7.5	5.8	6.6	5.1	
120.	* 6.9	5.7	6.7	5.1	
130.	* 6.4	5.6	6.8	5.1	
140.	* 6.4	5.6	7.1	5.1	
150.	* 7.1	5.6	7.3	5.1	
160.	* 8.1	5.6	7.8	5.1	
170.	* 9.3	5.9	8.7	5.3	
180.	* 8.4	10.1	7.7	9.5	
190.	* 5.7	10.1	5.2	10.0	
200.	* 5.6	7.5	5.1	8.7	

210.	*	5.6	6.4	5.1	8.1
220.	*	5.6	5.9	5.1	7.5
230.	*	5.7	6.0	5.1	7.4
240.	*	5.8	6.3	5.1	7.3
250.	*	5.9	6.6	5.1	7.1
260.	*	5.9	7.2	5.1	7.0
270.	*	5.3	6.9	5.3	7.4
280.	*	5.1	6.7	5.9	7.8
290.	*	5.1	6.7	5.9	7.6
300.	*	5.1	6.7	5.8	6.9
310.	*	5.1	6.8	5.7	6.4
320.	*	5.1	7.0	5.6	6.4
330.	*	5.1	7.4	5.6	7.0
340.	*	5.1	7.8	5.6	8.1
350.	*	5.3	8.7	5.9	9.4
360.	*	9.1	7.5	9.9	8.1

MAX	*	10.0	10.1	10.0	10.0
DEGR.	*	10	180	10	190

THE HIGHEST CONCENTRATION OF 10.10 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 10.10 X 0.7 = 7.07 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RB3,2020

DATE : 9/22/ 4
TIME : 14:17:46

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	LINK COORDINATES (FT) Y1 X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	* 518.0	.0	518.0	500.0	* 500.	360. AG	1221. 4.1	.0	56.0		
2. nbd	* 518.0	500.0	518.0	1000.0	* 500.	360. AG	1326. 4.1	.0	44.0		
3. nbq	* 518.0	464.0	518.0	-343.3	* 807.	180. AG	497. 100.0	.0	36.0	1.16	41.0
4. sba	* 482.0	1000.0	482.0	500.0	* 500.	180. AG	1064. 4.1	.0	56.0		
5. sbd	* 482.0	500.0	482.0	.0	* 500.	180. AG	1108. 4.1	.0	44.0		
6. sbq	* 482.0	536.0	482.0	787.0	* 251.	360. AG	497. 100.0	.0	36.0	1.01	12.8
7. eba	* .0	482.0	500.0	482.0	* 500.	90. AG	1629. 4.1	.0	56.0		
8. ebd	* 500.0	482.0	1000.0	482.0	* 500.	90. AG	1445. 4.1	.0	44.0		
9. ebq	* 464.0	482.0	392.7	482.0	* 71.	270. AG	166. 100.0	.0	36.0	.48	3.6
10. wba	* 1000.0	518.0	500.0	518.0	* 500.	270. AG	1227. 4.1	.0	56.0		
11. wbd	* 500.0	518.0	.0	518.0	* 500.	270. AG	1262. 4.1	.0	44.0		
12. wbq	* 536.0	518.0	589.7	518.0	* 54.	90. AG	166. 100.0	.0	36.0	.37	2.7

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RB3,2020

DATE : 9/22/ 4
TIME : 14:17:46

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	* 100	72	4.0	1221	1600	85.80	3	3
6. sbq	* 100	72	4.0	1064	1600	85.80	3	3
9. ebq	* 100	24	4.0	1629	1600	85.80	3	3
12. wbq	* 100	24	4.0	1227	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT) Y	Z	*
1. NW	* 444.0	556.0	5.5	*
2. NE	* 556.0	556.0	5.5	*
3. SW	* 444.0	444.0	5.5	*
4. SE	* 556.0	444.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RB3,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	* 5.6	5.2	6.7	6.0	
10.	* 7.3	5.1	8.4	5.7	
20.	* 7.9	5.1	7.6	5.7	
30.	* 7.5	5.1	6.4	5.5	
40.	* 7.1	5.1	5.9	5.4	
50.	* 6.9	5.1	6.0	5.4	
60.	* 6.8	5.1	5.9	5.6	
70.	* 6.7	5.1	6.3	5.6	
80.	* 6.6	5.1	6.7	5.6	
90.	* 6.9	5.2	6.5	5.2	
100.	* 7.3	5.6	6.3	5.1	
110.	* 7.1	5.6	6.4	5.1	
120.	* 6.5	5.6	6.3	5.1	
130.	* 6.1	5.7	6.5	5.1	
140.	* 6.4	5.7	6.7	5.1	
150.	* 7.0	5.8	7.0	5.1	
160.	* 7.7	5.8	7.3	5.1	
170.	* 8.2	5.8	7.5	5.2	
180.	* 6.4	7.9	5.7	6.9	
190.	* 5.6	9.1	5.1	8.8	
200.	* 5.7	7.7	5.1	8.1	

210.	*	5.8	6.3	5.1	7.4
220.	*	5.6	6.1	5.1	7.1
230.	*	5.5	6.0	5.1	7.0
240.	*	5.5	6.1	5.1	6.9
250.	*	5.6	6.5	5.1	6.7
260.	*	5.6	6.6	5.1	6.6
270.	*	5.2	6.6	5.3	7.0
280.	*	5.1	6.3	5.6	7.5
290.	*	5.1	6.5	5.8	7.3
300.	*	5.1	6.4	5.8	6.7
310.	*	5.1	6.5	5.9	6.2
320.	*	5.1	6.7	5.9	6.4
330.	*	5.1	6.8	5.9	6.9
340.	*	5.1	6.7	5.9	7.6
350.	*	5.1	5.8	5.8	6.9
360.	*	5.6	5.2	6.7	6.0
-----*					
MAX	*	8.2	9.1	8.4	8.8
DEGR.	*	170	190	10	190

THE HIGHEST CONCENTRATION OF 9.10 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 9.10 X 0.7 = 6.37 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RB5,2020

DATE : 9/22/ 4
TIME : 14:19:26

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1197.	4.1	.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1307.	4.1	.0	44.0		
3. nbq	*	518.0	464.0	518.0	-97.4	*	561.	180. AG	490.	100.0	.0	36.0	1.08	28.5
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1045.	4.1	.0	56.0		
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1086.	4.1	.0	44.0		
6. sbq	*	482.0	536.0	482.0	728.4	*	192.	360. AG	490.	100.0	.0	36.0	.95	9.8
7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1632.	4.1	.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1448.	4.1	.0	44.0		
9. ebq	*	464.0	482.0	389.6	482.0	*	74.	270. AG	173.	100.0	.0	36.0	.49	3.8
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1234.	4.1	.0	56.0		
11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1267.	4.1	.0	44.0		
12. wbq	*	536.0	518.0	592.2	518.0	*	56.	90. AG	173.	100.0	.0	36.0	.37	2.9

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RB5,2020

DATE : 9/22/ 4
TIME : 14:19:26

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	71	4.0	1197	1600	85.80	3	3
6. sbq	*	100	71	4.0	1045	1600	85.80	3	3
9. ebq	*	100	25	4.0	1632	1600	85.80	3	3
12. wbq	*	100	25	4.0	1234	1600	85.80	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.5	*
2. NE	*	556.0	556.0	5.5	*
3. SW	*	444.0	444.0	5.5	*
4. SE	*	556.0	444.0	5.5	*

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RB5,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	* 5.4	5.2	6.5	5.9	
10.	* 6.7	5.1	8.2	5.7	
20.	* 7.5	5.1	7.5	5.7	
30.	* 7.5	5.1	6.4	5.5	
40.	* 7.1	5.1	5.9	5.4	
50.	* 6.9	5.1	6.0	5.4	
60.	* 6.8	5.1	6.0	5.6	
70.	* 6.7	5.1	6.3	5.6	
80.	* 6.6	5.1	6.7	5.6	
90.	* 6.8	5.2	6.5	5.2	
100.	* 7.3	5.6	6.3	5.1	
110.	* 7.1	5.6	6.4	5.1	
120.	* 6.4	5.6	6.3	5.1	
130.	* 6.1	5.7	6.5	5.1	
140.	* 6.3	5.8	6.7	5.1	
150.	* 7.0	5.9	6.9	5.1	
160.	* 7.6	5.8	7.2	5.1	
170.	* 7.8	5.9	7.0	5.2	
180.	* 6.1	7.6	5.5	6.5	
190.	* 5.7	9.0	5.1	8.5	
200.	* 5.8	7.5	5.1	8.0	

210.	*	5.8	6.3	5.1	7.4
220.	*	5.6	6.1	5.1	7.1
230.	*	5.5	6.0	5.1	7.0
240.	*	5.5	6.1	5.1	6.9
250.	*	5.6	6.5	5.1	6.7
260.	*	5.6	6.6	5.1	6.6
270.	*	5.2	6.6	5.3	6.9
280.	*	5.1	6.3	5.6	7.5
290.	*	5.1	6.5	5.8	7.3
300.	*	5.1	6.4	5.9	6.5
310.	*	5.1	6.5	5.9	6.1
320.	*	5.1	6.7	5.9	6.4
330.	*	5.1	6.6	5.9	6.9
340.	*	5.1	6.2	5.9	7.4
350.	*	5.1	5.6	5.9	6.6
360.	*	5.4	5.2	6.5	5.9

MAX	*	7.8	9.0	8.2	8.5
DEGR.	*	170	190	10	190

THE HIGHEST CONCENTRATION OF 9.00 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 9.00 X 0.7 = 6.3 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RBN,2020

DATE : 9/22/ 4
TIME : 14:21:10

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.1 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	LINK COORDINATES (FT) Y1 X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
1. nba	*	518.0 .0	518.0	500.0 *	500.	360. AG	1197. 4.1	.0	56.0	
2. nbd	*	518.0 500.0	518.0	1000.0 *	500.	360. AG	1304. 4.1	.0	44.0	
3. nbq	*	518.0 464.0	518.0	64.4 *	400.	180. AG	483. 100.0	.0	36.0	1.04 20.3
4. sba	*	482.0 1000.0	482.0	500.0 *	500.	180. AG	1044. 4.1	.0	56.0	
5. sbd	*	482.0 500.0	482.0	.0 *	500.	180. AG	1083. 4.1	.0	44.0	
6. sbq	*	482.0 536.0	482.0	708.7 *	173.	360. AG	483. 100.0	.0	36.0	.91 8.8
7. eba	*	.0 482.0	500.0	482.0 *	500.	90. AG	1623. 4.1	.0	56.0	
8. ebd	*	500.0 482.0	1000.0	482.0 *	500.	90. AG	1442. 4.1	.0	44.0	
9. ebq	*	464.0 482.0	387.1	482.0 *	77.	270. AG	180. 100.0	.0	36.0	.50 3.9
10. wba	*	1000.0 518.0	500.0	518.0 *	500.	270. AG	1228. 4.1	.0	56.0	
11. wbd	*	500.0 518.0	.0	518.0 *	500.	270. AG	1263. 4.1	.0	44.0	
12. wbq	*	536.0 518.0	594.1	518.0 *	58.	90. AG	180. 100.0	.0	36.0	.38 3.0

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RBN,2020

DATE : 9/22/ 4
TIME : 14:21:10

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	100	70	4.0	1197	1600	85.80 3	3
6. sbq	*	100	70	4.0	1044	1600	85.80 3	3
9. ebq	*	100	26	4.0	1623	1600	85.80 3	3
12. wbq	*	100	26	4.0	1228	1600	85.80 3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	COORDINATES (FT) Y Z	* Y	* Z
1. NW	*	444.0	556.0	5.5 *
2. NE	*	556.0	556.0	5.5 *
3. SW	*	444.0	444.0	5.5 *
4. SE	*	556.0	444.0	5.5 *

JOB: C:\sa_temp\CAL3QHC Runs\Orangeline\laoxR

RUN: Lankershim Bl & Oxnard St./RBN,2020

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	5.3	5.2	6.5	6.0
10.	*	6.5	5.1	8.1	5.8
20.	*	7.4	5.1	7.5	5.7
30.	*	7.4	5.1	6.4	5.6
40.	*	7.1	5.1	5.9	5.4
50.	*	6.9	5.1	6.0	5.4
60.	*	6.8	5.1	6.0	5.6
70.	*	6.7	5.1	6.3	5.6
80.	*	6.6	5.1	6.6	5.6
90.	*	6.8	5.2	6.5	5.2
100.	*	7.3	5.6	6.3	5.1
110.	*	7.1	5.6	6.4	5.1
120.	*	6.4	5.6	6.3	5.1
130.	*	6.1	5.8	6.5	5.1
140.	*	6.3	5.8	6.7	5.1
150.	*	7.0	5.9	6.9	5.1
160.	*	7.6	5.8	7.1	5.1
170.	*	7.4	5.9	6.4	5.1
180.	*	6.0	7.1	5.3	6.1
190.	*	5.7	8.7	5.1	8.0
200.	*	5.8	7.5	5.1	8.0

210.	*	5.8	6.3	5.1	7.4
220.	*	5.7	6.0	5.1	7.1
230.	*	5.5	6.0	5.1	7.0
240.	*	5.5	6.1	5.1	6.9
250.	*	5.6	6.5	5.1	6.7
260.	*	5.6	6.5	5.1	6.6
270.	*	5.2	6.6	5.3	6.9
280.	*	5.1	6.3	5.6	7.5
290.	*	5.1	6.5	5.8	7.4
300.	*	5.1	6.4	5.9	6.5
310.	*	5.1	6.5	6.0	6.1
320.	*	5.1	6.6	6.0	6.4
330.	*	5.1	6.4	5.9	6.9
340.	*	5.1	6.0	5.9	7.3
350.	*	5.1	5.5	5.9	6.5
360.	*	5.3	5.2	6.5	6.0

MAX	*	7.6	8.7	8.1	8.0
DEGR.	*	160	190	10	190

THE HIGHEST CONCENTRATION OF 8.70 PPM OCCURRED AT RECEPTOR REC2.
 THE 8-HR CO CONCENTRATION = 8.70 X 0.7 = 6.09 PPM.

**APPENDIX 8-E
NOISE MODELING**

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Devonshire

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES			TRAFFIC MIX, %			SPEED, MPH			FEET TO ROAD CENTER			NOISE LEVELS			Total Ldn	Severe Impact	
					ADT	PK Hr	ADT	%NIGHT	NIGHT	MED	HVY	AUTO	TRUCK	BUS	Leq	Ldn	Bus Ldn	Impact				
Canoga	Desoto	3	64	120	1642	19840	2	42	14	17.1	1.1	0.1	35	35	31	74	64	65	61	0	0	No
Rapid Bus	Mason	2	64	120	1193	13636	2	42	14	16.6	1.0	0.1	35	35	32	74	63	64	61	33	1	Yes
Rapid Bus	Mason	2	64	120	1192	13636	2	42	14	16.6	1.0	0.1	35	35	32	74	55	56	54	5	0	No
Rapid Bus	Mason	2	64	120	1496	15703	2	42	14	16.2	0.6	0.1	35	35	32	74	40	40	40	0	0	No
Rapid Bus	Winnetka	2	64	120	1733	21530	2	42	14	17.9	2.2	0.2	35	35	30	74	65	66	61	34	0	Yes
Rapid Bus	Corbin	2	64	120	2108	26435	2	42	14	18.7	2.7	0.3	35	35	29	74	66	67	61	68	0	No
Rapid Bus	Tampa	2	64	120	2015	25433	2	42	14	17.7	1.4	0.2	35	35	23	74	65	66	61	68	0	No
Rapid Bus	Wilbur	2	64	120	2018	25600	2	42	14	17.8	1.1	0.1	35	35	30	105	63	65	59	66	0	No
Rapid Bus	Reseda	2	64	120	2118	27469	2	42	14	19.4	1.1	0.1	35	35	29	79	65	67	61	68	0	No
Rapid Bus	Lindley	2	64	120	1876	25326	2	42	14	19.7	1.2	0.1	35	35	30	74	65	67	61	68	0	No
Rapid Bus	Zelzha	2	64	120	2067	28214	2	42	14	18.9	1.6	0.2	35	35	29	74	65	67	61	68	0	No
Rapid Bus	Louise	2	64	120	2067	28214	2	42	14	18.9	1.5	0.2	35	35	30	79	65	67	61	68	0	No
Rapid Bus	Balboa	2	64	120	1878	24487	2	42	14	19.1	1.8	0.2	35	35	30	74	65	67	61	68	0	No
Rapid Bus	Hayvenhurst	2	64	120	1861	24456	2	42	14	19	1.9	0.2	35	35	30	74	65	67	61	68	0	No
Rapid Bus	Woodley	2	64	120	1859	26594	2	42	14	22.7	1.9	0.2	35	35	29	74	65	68	61	68	0	No
Rapid Bus	Haskell	2	64	120	2025	26377	2	42	14	18.1	1.4	0.2	35	35	30	74	65	67	61	68	0	No
Rapid Bus	Sepulveda	2	64	120	1277	13630	2	42	14	15.3	1.3	0.1	35	35	32	74	63	64	61	66	0	Yes
Rapid Bus	Woodman	2	64	120	663	6792	2	42	14	16.4	1.5	0.2	35	35	32	74	60	61	61	64	0	Yes
Rapid Bus	Arleta	2	64	120	663	6792	2	42	14	16.4	1.5	0.2	35	35	32	74	47	47	61	7	0	No
Rapid Bus	Woodman	2	64	120	983	9158	2	42	14	16	1.5	1.6	35	35	32	74	42	42	56	6	0	No
Rapid Bus	Van Nuys	2	64	120	983	9158	2	42	14	16	1.5	1.6	35	35	32	74	63	63	61	65	0	Yes
Rapid Bus	Van Nuys	2	64	120	983	9158	2	42	14	16	1.5	1.6	35	35	32	74	47	47	30	2	0	No

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis

One lane of traffic

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES			TRAFFIC MIX, %			SPEED, MPH			FEET TO ROAD CENTER			Severe Impact					
					ADT	PK Hr	ADT	%NIGHT	NIGHT/TRUCKS	HVY	AUTO	TRUCK	BUS	TO ROAD CENTER	Leq	Bus Ldn		Total Ldn				
Van Nuys Rapid Bus	Hazeltine	2	24	120	170	4500	6	82	14	16.8	2.2	0.3	35	27	27	46	57	63	62	66	Yes	No
Van Nuys Rapid Bus	Hazeltine	2	24	120	170	4500	6	104	22	0	0.0	0.0	35	27	35	46	52	94	17	66	Yes	No
Van Nuys Rapid Bus	Hazeltine	2	24	120	170	4500	6	82	14	16.8	2.2	0.3	35	27	27	126	53	59	58	61	Yes	No
Woodman Rapid Bus	Woodman	2	24	120	170	4500	6	82	14	19.3	1.2	0.1	35	27	27	46	57	63	62	66	Yes	No
Hazeltine Rapid Bus	Woodman	2	24	120	170	4500	6	82	14	19.3	1.2	0.1	35	27	27	126	52	111	1	66	Yes	No
Woodman Rapid Bus	Fulton	2	24	120	270	4500	6	104	22	0	0.0	0.0	35	27	35	126	48	64	63	67	Yes	No
Woodman Rapid Bus	Fulton	2	24	120	270	4500	6	104	22	17.2	1.2	0.1	35	27	27	46	58	63	62	65	Yes	No
Woodman Rapid Bus	Fulton	2	24	120	270	4500	6	82	14	17.2	2.3	0.3	35	27	35	46	52	60	63	67	Yes	No
Woodman Rapid Bus	Fulton	2	24	120	270	4500	6	104	22	0	0.0	0.0	35	27	35	36	60	64	63	67	Yes	No
Woodman Rapid Bus	Fulton	2	24	120	270	4500	6	82	14	17.2	2.3	0.3	35	27	27	116	55	59	58	62	Yes	No
ColdwaterCyn Rapid Bus	Whitsett	3	24	120	354	4500	6	82	14	20.6	1.7	0.2	35	27	27	46	60	65	64	68	Yes	No
ColdwaterCyn Rapid Bus	Whitsett	3	24	120	354	4500	6	82	14	20.6	1.7	0.2	35	27	35	46	52	35	8	66	Yes	No
Whitsett Rapid Bus	Laurel Cyn	2	24	120	332	4500	5	82	14	20.1	1.9	0.2	35	27	27	126	48	65	63	67	No	No
Whitsett Rapid Bus	Laurel Cyn	2	24	120	332	4500	5	104	22	0	0.0	0.0	35	27	35	46	52	7	31	66	Yes	No
Laurel Cyn Rapid Bus	Colfax	2	24	120	393	4500	6	82	14	20.1	1.9	0.2	35	27	27	126	55	59	58	61	Yes	No
Laurel Cyn Rapid Bus	Colfax	2	24	120	393	4500	6	104	22	0	0.0	0.0	35	27	35	126	48	65	63	67	Yes	No
Laurel Cyn Rapid Bus	Colfax	2	24	120	393	4500	6	82	14	16.4	2.1	0.2	35	27	27	46	60	63	62	65	Yes	No
Laurel Cyn Rapid Bus	Colfax	2	24	120	393	4500	5	82	14	16.4	2.1	0.2	35	27	27	126	56	59	58	61	Yes	No
Redline Rapid Bus	Redline	2	24	120	457	4500	5	82	14	15.6	1.5	0.2	35	27	27	46	61	63	62	65	Yes	No
Redline Rapid Bus	Redline	2	24	120	457	4500	5	104	22	0	0.0	0.0	35	27	35	46	52	4	1	65	Yes	No
Redline Rapid Bus	Redline	2	24	120	457	4500	5	82	14	15.6	1.5	0.2	35	27	27	126	56	58	58	61	Yes	No
Redline Rapid Bus	Redline	2	24	120	457	4500	6	104	22	0	0.0	0.0	35	27	35	126	48	64	63	67	Yes	No

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Burbank

Start-	End	Category	WIDTH FT	ALPHA DEG	NUMBER OF VEHICLES			TRAFFIC MIX, %			SPEED, MPH			FEET TO ROAD CENTER			Severe Impact			
					PEAK HOUR	ADT	PK Hr	%NIGHT	NIGHT	RUCKS	MED	HVY	AUTO	TRUCK	BUS	TO ROAD CENTER		Leq	Ldn	Bus Ldn
Lindley Rapid Bus	White Oak	2	60	120	2005	21981	8	183	14	15.7	2.6	0.3	35	35	30	58	67	63	69	No
White Oak Rapid Bus	Louise	2	60	120	1992	17284	8	183	14	12.1	1.7	0.2	35	35	30	58	66	67	68	Yes
Louise Rapid Bus	Balboa	2	60	120	2104	18509	8	183	14	12.5	2.1	0.2	35	35	30	58	67	63	69	Yes
Balboa Rapid Bus	Woodley	2	60	120	3073	33282	8	183	14	14.3	1.9	0.2	35	35	30	58	68	69	70	No
Woodley Rapid Bus	I-405	2	60	120	3782	22721	8	183	14	16.7	2.2	0.2	35	35	29	58	69	63	69	No
I-405 Rapid Bus	Sepulveda	2	60	120	3782	22721	2	183	14	16.7	1.8	0.2	35	35	28	58	69	63	69	No
Sepulveda Rapid Bus	Kester	2	60	120	3020	35564	2	37	16	18.2	1.5	0.2	35	35	28	58	68	69	70	No
Kester Rapid Bus	Van Nuys	2	60	120	2369	32378	2	183	14	18.8	1.7	0.2	35	35	29	58	67	70	70	No
Van Nuys Rapid Bus	Hazeltine	2	60	120	1952	22996	2	183	14	45.5	1.7	0.2	35	35	30	58	66	71	63	No
Hazeltine Rapid Bus	Woodman	2	60	120	1873	21826	2	183	14	16.1	1.8	0.2	35	35	30	58	66	68	63	No
Woodman Rapid Bus	Fulton	2	60	120	1916	23292	2	183	14	15.1	1.8	0.2	35	35	30	58	66	68	63	No
Fulton Rapid Bus	Coldwater	2	60	120	1626	17486	2	183	14	13.5	2.0	0.2	35	35	31	58	65	67	63	Yes
Coldwater Rapid Bus	Whitsett	2	60	120	1921	22707	2	183	14	14.4	1.7	0.2	35	35	31	58	50	7	18	Yes
Whitsett Rapid Bus	Laurel	2	60	120	1789	20784	2	183	14	13.4	1.7	0.2	35	35	30	58	66	63	69	Yes
Laurel Rapid Bus	Collax	2	60	120	1705	19225	2	27	26	22.7	1.6	0.2	35	35	32	58	66	68	63	Yes
Collax Rapid Bus	Lankershim	2	60	120	677	7885	2	27	26	8.9	1.3	0.1	35	31.5	27	58	61	65	67	Yes
Lankershim Rapid Bus	Redline	2	60	120	1298	6893	2	183	14	20.5	1.8	0.2	35	31.75	27	58	64	65	68	Yes
Redline Rapid Bus		2	60	120			6	204	22	0	0.0	0.0	35	31.75	40	58	52	0	0	No

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Laurel Canyon

Start	End	Category	WIDTH FT	ALPHA DEG	NUMBER OF VEHICLES				TRAFFIC MIX, %				FEET REDICTED A-WEIGHTED TO ROAD NOISE LEVELS				Severe Impact					
					PEAK HOUR	ADT	Pk Hr	Bus ADT	%NIGHT	NIGHT TRUCKS	MED	HVY	SPEED_MPH AUTO	TRUCK	BUS	CENTER		Leq	Ldn	Bus Ldn	Total Ldn	
Ventura	Moorpark	2	60	120	2666	36670	5	94	15	20.7	1.7	0.2	35	35	27	45	69	71	64	72	No	
Rapid Bus	Riverside	2	60	120	2955	39761	5	94	15	19.1	1.6	0.2	35	35	25	45	69	71	64	72	No	
Rapid Bus	Magnolia	2	60	120	2238	26200	5	94	15	12.6	1.7	0.2	35	35	28	45	68	69	64	70	Yes	
Rapid Bus	Burbank	2	60	120	2399	30831	5	94	15	17	1.5	0.2	35	35	29	45	68	70	64	71	No	
Rapid Bus	Oxnard	2	60	120	2137	25224	7	61	19	13.2	1.8	0.2	35	35	29	45	68	69	64	70	Yes	
Rapid Bus	Victory	2	60	120	2240	25406	6	204	22	0	0.0	0.0	35	35	29	45	50	50	4	4	37	No
Rapid Bus	Vanowen	2	60	120	1919	22754	7	61	19	14.9	2.1	0.2	35	35	24	45	68	69	64	70	Yes	
Rapid Bus	ShermanWay	2	60	120	1667	17298	7	61	19	13.2	1.7	0.2	35	35	24	45	50	50	0	0	0	No
Rapid Bus	Saticoy	2	60	120	869	9295	7	61	19	17	1.6	0.2	35	35	29	45	67	67	64	69	Yes	
Rapid Bus	Strathern	2	60	120	1532	17117	7	61	19	15.9	1.5	0.2	35	35	32	45	64	65	64	68	Yes	
Rapid Bus	Roscoe	2	60	120	1163	12222	7	61	19	14.1	2.9	0.3	35	35	32	45	50	60	58	62	No	
Rapid Bus	Webb	2	60	120	379	3618	5	94	15	11.6	1.6	0.2	35	35	32	45	44	44	38	38	0	No
Rapid Bus	Sheldon	2	60	120	379	3618	6	204	22	0	0.0	0.0	35	35	32	45	50	50	0	0	7	No
Rapid Bus	Bramford	2	60	120	1111	9788	5	94	15	23	1.0	0.1	35	35	31	70	62	64	61	66	Yes	
Rapid Bus	Bramford	2	60	120	1111	9788	6	204	22	0	0.0	0.0	35	35	31	70	47	47	43	43	0	No
Rapid Bus	Osborne	2	60	120	1164	10230	5	94	15	23	1.4	0.2	35	35	31	70	63	64	61	66	Yes	
Rapid Bus	Bella	2	60	120	842	7157	5	94	15	15.5	0.9	0.1	35	35	32	70	63	63	61	65	Yes	
Rapid Bus	VanNuys	2	60	120	842	7157	6	204	22	0	0.0	0.0	35	35	32	70	47	47	43	43	0	No
Rapid Bus		2	60	120			6	204	22	0	0.0	0.0	35	35	32	70	61	63	61	187	22	Yes

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Roscoe

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES			TRAFFIC MIX, %			SPEED, MPH			FEET TO ROAD CENTER			NOISE LEVELS			Total Ldn	Severe Impact
					Peak Hour	ADT	PK Hr	%Night	Night Trucks	Med Trucks	Hvy	Auto	Truck	Bus	Leq	Ldn	Bus Ldn				
Topanga Rapid Bus	Canoga	2	84	120	2257	29210	8	137	22	19.1	0.9	0.1	35	35	35	29	66	66	69	70	No
Canoga Rapid Bus	Desoto	2	72	120	2075	26876	8	137	22	19.4	1.5	0.2	35	35	35	29	66	66	68	69	No
Desoto Rapid Bus	Mason	2	84	120	3018	39130	8	137	22	19.3	1.4	0.2	35	35	35	30	60	68	71	63	No
Mason Rapid Bus	Winnetka	2	84	120	3220	41916	8	137	22	19.6	2.1	0.2	35	35	35	30	60	50	71	63	No
Winnetka Rapid Bus	Corbin	2	72	120	3257	42792	8	137	22	18.7	1.6	0.2	35	35	35	29	61	68	70	63	No
Corbin Rapid Bus	Tampa	2	84	120	3881	51279	8	137	22	19.3	1.5	0.2	35	35	35	27	61	69	71	63	No
Tampa Rapid Bus	Wilbur	2	84	120	3829	48799	8	137	22	18	1.5	0.2	35	35	35	27	60	69	71	63	No
Wilbur Rapid Bus	Reseda	2	84	120	3110	38244	8	137	22	18.2	1.4	0.2	35	35	35	30	60	68	70	63	No
Reseda Rapid Bus	Lindley	2	84	120	3820	44701	8	137	22	16.5	1.9	0.2	35	35	35	30	60	50	75	67	Yes
Lindley Rapid Bus	Lindley	2	84	120	3820	44701	8	137	22	16.5	1.9	0.2	35	35	35	28	40	74	75	52	8
Lindley Rapid Bus	White Oak	2	84	120	4036	19259	8	137	22	16.9	1.7	0.2	35	35	35	27	60	70	68	62.5	69
White Oak Rapid Bus	Louise	2	84	120	3304	44392	8	137	22	17.5	1.9	0.2	35	35	35	29	93	66	68	60.6	69
Louise Rapid Bus	Balboa	2	84	120	4052	53552	8	137	22	17.8	1.4	0.2	35	35	35	29	93	48	69	60.4	70
Balboa Rapid Bus	Hayvenhurst	2	84	120	3903	46656	8	137	22	16.5	1.2	0.1	35	35	35	27	85	48	71	62.7	71
Hayvenhurst Rapid Bus	Woodley	2	84	120	3903	46656	8	137	22	16.5	1.2	0.1	35	35	35	28	60	50	71	62.7	71
Woodley Rapid Bus	I-405	2	84	120	3901	52212	8	137	22	19.5	2.3	0.3	35	35	35	27	60	70	72	62.6	72
I-405 Rapid Bus	Sepulveda	2	84	120	4678	53403	8	137	22	22	1.4	0.2	35	35	35	26	60	70	72	62.4	72
Sepulveda Rapid Bus	VanNuys	2	84	120	2919	28662	8	137	22	26.1	1.6	0.2	35	35	35	29	60	68	70	63.1	71
VanNuys Rapid Bus	Hazletine	2	84	120	3349	42231	5	195	21	17.2	1.9	0.2	35	35	35	30	60	69	71	62.7	72
Hazletine Rapid Bus	Woodman	2	84	120	3554	45583	5	195	21	17.5	2.2	0.2	35	35	35	30	60	50	71	63.0	72
Woodman Rapid Bus	ColdwaterCyn	2	84	120	4000	50757	5	195	21	17.2	2.3	0.3	35	35	35	29	60	50	72	62.5	72
ColdwaterCyn Rapid Bus	Whitsett	2	84	120	3390	39768	8	137	22	14.2	2.5	0.3	35	35	35	32	60	69	70	63.9	71
Whitsett Rapid Bus	LaurelCyn	2	60	120	1491	19049	8	137	22	14.7	2.4	0.3	35	35	35	32	60	65	67	63.2	69
LaurelCyn Rapid Bus	Lankershim	2	60	120	1277	12679	8	108	19	15.9	2.7	0.3	35	35	35	32	60	65	66	63.2	68
Lankershim Rapid Bus	San Fernando	2	60	120	1178	10867	8	108	19	11.8	2.4	0.3	35	35	35	32	60	64	65	63.2	67
San Fernando Rapid Bus		2	60	120			6	204	22	0	0.0	0.0	35	35	35	32	60	50	0	0	0

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis San Fernando

Start	End	Category	WIDTH FT	ALPHA DEG	PEAK HOUR	NUMBER OF VEHICLE			TRAFFIC MIX, %			SPEED, MPH			FEET TO ROAD CENTER			REDICTED A-WEIGHTED NOISE LEVELS			Severe Impact	
						ADT	ADT	Bus	ADT	ADT	%NIGHT	TRUCKS	TRUCKS	TRUCKS	HVY	AUTO	TRUCK	TRUCK	TRUCK	TRUCK		TRUCK
Vanowen	San Fernando	2	48	120	1958	24501	7	196	19	18	3.7	0.4	35	35	35	31	34	70	72	65	72	No
Rapid Bus	San Fernando	2	48	120	981	5798	7	196	19	20.1	1.8	0.2	35	35	35	32	34	66	67	65	69	Yes
Rapid Bus	Vineland/Sunland	2	48	120	1131	9868	6	204	22	0	0.0	0.0	35	35	35	32	34	51	51	65	70	No
Rapid Bus	Vineland/Sunland/Roscoe	2	48	120	913	5185	7	196	19	12.2	2.8	0.3	35	35	35	32	34	67	68	65	70	Yes
Rapid Bus	Roscoe	2	48	120	1422	13657	6	204	22	0	0.0	0.0	35	35	35	32	34	51	51	65	69	Yes
Rapid Bus	Lankershim	2	48	120	1215	13601	7	196	19	17.2	2.2	0.2	35	35	35	32	34	68	69	65	70	Yes
Rapid Bus	Sheldon	2	48	120	1611	15598	6	204	22	0	0.0	0.0	35	35	35	32	34	51	51	65	71	Yes
Rapid Bus	Osborne	2	48	120	1215	13601	7	196	19	17.2	2.2	0.2	35	35	35	32	34	68	69	65	70	Yes
Rapid Bus	Bella	2	48	120	1397	15589	7	196	19	16.8	1.8	0.2	35	35	35	32	34	67	69	65	71	Yes
Rapid Bus	Van Nuys	2	48	120	1267	14254	7	196	19	13.9	1.5	0.2	35	35	35	32	34	51	51	65	71	Yes
Rapid Bus	Paxton	2	48	120	654	7461	7	196	19	14.5	1.6	0.2	35	35	35	32	34	64	64	65	69	Yes
Rapid Bus	Fox/Brand	2	48	120	2087	18980	6	204	22	0	0.0	0.0	35	35	35	32	34	51	51	65	71	Yes
Rapid Bus	Mission/Mcclay	2	48	120	1952	18401	7	196	19	12.7	3.4	0.4	35	35	35	31	34	69	70	65	71	Yes
Rapid Bus	Hubbard	2	48	120	1129	12967	7	196	19	18.1	2.5	0.3	35	35	35	32	34	67	69	65	71	Yes
Rapid Bus	San Fernando	2	48	120	1129	12967	6	204	22	0	0.0	0.0	35	35	35	32	34	67	69	65	71	Yes

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Reseda

Start	End	Category	NUMBER OF VEHICLES					TRAFFIC MIX, %					FEET TO ROAD CENTER					Severe Impact			
			Width	Alpha	Peak	ADT	Pk Hr	Bus ADT	NIGHT - RUCKS			SPEED, MEH		NOISE LEVELS			Total Ldn				
									%Night	Med	Hvy	Auto	Truck	Leq	Bus Ldn	68			63	69	
Ventura Rapid Bus	101	2	60	120	1318	17453	6	151	14	21.4	1.6	0.2	35	35	31	60	64	68	63	69	No
Oxnard Rapid Bus	101	2	60	120	2803	35021	6	151	14	24	1.8	0.2	35	35	25	60	68	70	61	71	No
Oxnard Rapid Bus	101	2	60	120	2467	36161	6	151	14	22.8	1.8	0.2	35	35	27	60	67	70	62	71	No
Vanowen Rapid Bus	101	2	60	120	2736	37329	6	151	14	21.4	1.7	0.2	35	35	29	60	67	70	62	71	No
Vanowen Rapid Bus	101	2	60	120	2490	32464	6	151	14	21.4	1.6	0.2	35	35	27	60	67	70	62	70	No
ShermanWay Rapid Bus	101	2	60	120	2402	33715	6	151	14	22.5	1.4	0.2	35	35	28	60	67	70	62	71	No
ShermanWay Rapid Bus	101	2	60	120	2412	32318	6	151	14	22.1	1.4	0.2	35	35	28	60	67	70	62	70	No
Straithern Rapid Bus	101	2	60	120	2769	37659	6	151	14	21.3	1.5	0.2	35	35	26	60	67	70	62	71	No
Roscoe Rapid Bus	101	2	60	120	2395	33488	6	151	14	22	1.2	0.1	35	35	28	60	67	70	62	70	No
Parthenia Rapid Bus	101	2	60	120	2395	33488	6	151	14	22	1.6	0.2	35	35	27	60	67	70	62	70	No
Nordhoff Rapid Bus	101	2	60	120	2186	31815	6	151	14	21.5	1.7	0.2	35	35	28	60	66	70	62	70	No
Plummer Rapid Bus	101	2	60	120	1991	24050	6	151	14	20.1	1.2	0.1	35	35	29	60	66	68	63	69	No
Lassen Rapid Bus	101	2	60	120	1936	27632	6	151	14	21	1.5	1.7	35	35	30	60	67	70	63	71	No
Devonshire Rapid Bus	101	2	60	120	1936	27632	6	204	22	0	0.0	0.0	35	35	30	60	50	50	63	71	No

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES			TRAFFIC MIX, %			SPEED, MPH			FEET TO ROAD CENTER			Total Ldn	Severe Impact		
					Peak Hour	ADT	Pk Hr	Night	Trucks	Med	Auto	Truck	Bus	Center	Leq	Ldn			Bus Ldn	
Sepulveda Rapid Bus	Kester	2	78	120	1005	11718	2	37	16	17.6	1.4	35	35	27	60	57	57	61	0	No
Kester Rapid Bus	Van Nuys	2	78	120	1076	10388	2	37	16	17.9	1.9	35	35	26	60	64	65	62	0	No
Van Nuys Rapid Bus	Hazleton	2	78	120	1185	9523	2	37	16	20.1	1.4	35	35	27	60	64	64	62	0	No
Hazleton Rapid Bus	Woodman	2	78	120	1334	12356	2	37	16	15.1	2.1	35	35	27	60	65	65	62	0	No
Woodman Rapid Bus	Fulton	2	70	120	1338	9480	2	37	16	16.8	1.5	35	35	27	60	64	64	62	0	No
Fulton Rapid Bus	Coldwater	2	70	120	1677	15656	2	37	16	16.8	2.4	35	35	28	70	65	65	62	1	No
Coldwater Rapid Bus	Whitsett	2	78	120	1798	20130	2	37	16	14.3	1.4	35	35	27	70	65	66	62	1	No
Whitsett Rapid Bus	Laurel	2	78	120	1197	13121	2	37	16	15.8	1.4	35	35	28	70	63	64	62	35	No
Laurel Rapid Bus	Colfax	2	78	120	1743	22853	2	37	16	20.3	1.6	35	35	26	70	65	67	61	17	No
Colfax Rapid Bus	Lankershim	2	78	120	1530	20774	2	37	16	20.3	1.5	35	35	28	70	64	67	62	68	No
Lankershim Rapid Bus		2	78	120			6	204	22	0	0.0	35	35	28	70	49	49	68	68	No

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Sherman Way

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES				TRAFFIC MIX, %				SPEED, MPH			FEET TO ROAD CENTER		REDICTED A-WEIGHTED NOISE LEVELS		Total Ldn	Severe Impact
					Peak Hour	ADT	Pk Hr	ADT	Bus	%Night	Med	Trucks	HVY	Auto	Truck	Bus	Leq	Bus Ldn			
Rapid Bus	Owensmouth	2	76	120	2267	22431	2	29	24	18.9	1.4	0.2	35	30	92	64	65	61	67	No	
Rapid Bus	Owensmouth	2	76	120	2267	22431	2	29	24	18.9	0.9	0.1	35	30	92	48	48	61	66	No	
Rapid Bus	DeSoto	2	76	120	1856	22665	2	29	24	1.5	1.5	0.2	35	31	92	64	65	61	66	No	
Rapid Bus	Mason	2	76	120	2748	30531	2	29	24	15.6	1.7	0.2	35	30	92	65	66	61	67	No	
Rapid Bus	Mason	2	76	120	2748	30531	2	29	24	15.6	2.2	0.2	35	30	92	48	48	61	67	No	
Rapid Bus	Winnelka	2	76	120	3415	40680	2	29	24	15.9	1.8	0.2	35	30	90	67	67	61	68	No	
Rapid Bus	Winnelka	2	76	120	3415	40680	2	29	24	15.9	0.0	0.0	35	30	90	48	48	61	69	No	
Rapid Bus	Corbin	2	76	120	2263	29240	2	29	24	17.5	1.3	0.1	35	29	80	65	67	61	68	No	
Rapid Bus	Reseda	2	76	120	2202	28314	2	29	24	17.6	1.4	0.2	35	30	102	64	65	60	67	No	
Rapid Bus	Reseda	2	76	120	2350	31731	2	29	24	19.1	1.5	0.2	35	28	120	63	65	59	66	No	
Rapid Bus	White Oak	2	78	120	2604	34868	2	29	24	19.5	1.6	0.2	35	30	99	65	67	60	68	No	
Rapid Bus	White Oak	2	78	120	3067	36923	2	29	24	18.5	1.8	0.2	35	30	99	48	48	61	69	No	
Rapid Bus	Balboa	2	78	120	3215	39278	2	29	24	19.2	1.9	0.2	35	30	85	67	68	64	70	Yes	
Rapid Bus	Balboa	2	78	120	2134	29914	2	29	24	21.9	1.9	0.2	35	30	80	49	49	61	69	No	
Rapid Bus	Hayvenhurst	2	78	120	3478	51117	2	29	24	22.2	1.3	0.1	35	21	80	67	70	59	70	No	
Rapid Bus	Woodley	2	78	120	2823	48206	2	29	24	26.8	2.1	0.2	35	24	80	66	70	60	71	No	
Rapid Bus	Woodley	2	78	120	1891	33835	2	29	24	27.7	1.5	0.2	35	24	80	47	47	61	69	No	
Rapid Bus	Sepulveda	2	78	120	1928	33052	2	29	24	26.9	1.4	0.2	35	29	80	65	69	61	69	No	
Rapid Bus	Kester	2	78	120	2542	38437	2	29	24	22.2	2.1	0.2	35	25	90	65	68	60	69	No	
Rapid Bus	Kester	2	78	120	2132	31119	2	29	24	21.9	2.4	0.3	35	25	90	47	47	61	69	No	
Rapid Bus	Hazelline	2	78	120	2284	34991	2	29	24	22.4	0.0	0.0	35	28	80	65	69	61	69	No	
Rapid Bus	Woodman	2	78	120	3534	41299	2	29	24	21.9	2.7	0.3	35	26	80	68	70	60	70	No	
Rapid Bus	Fulton	2	78	120	1958	29252	2	29	24	22.4	2.9	0.3	35	29	70	66	69	62	70	No	
Rapid Bus	Coldwater	2	78	120	2176	33269	2	29	24	23.2	2.5	0.3	35	29	80	66	69	61	70	No	
Rapid Bus	Whitsett	2	78	120	3645	42111	2	29	24	17.3	2.0	0.2	35	31	80	68	69	62	70	No	
Rapid Bus	Laurel	2	78	120	1739	21616	2	29	24	26.3	1.9	0.2	35	30	80	64	68	62	69	No	
Rapid Bus	Laurel	2	78	120	1379	16544	2	29	24	21.1	1.5	0.2	35	32	80	63	66	62	68	Yes	
Rapid Bus	Tujunga	2	78	120	933	10401	2	29	24	12.6	1.9	0.2	35	32	80	62	64	62	66	Yes	
Rapid Bus	Vineland	2	78	120			2	29	24	0.0	0.0	0.0	35	32	80	49	49	0	0	No	

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
 OrangeLine Alternative Analysis Sepulveda

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES			TRAFFIC MIX, %				SPEED, MPH			FEET TO ROAD CENTER		PREDICTED A-WEIGHTED NOISE LEVELS		Total Ldn		Severe Impact
					Peak Hour	ADT	ADT	PK Hr	ADT	Bus	%Night	Night	Trucks	Med	Heavy	Auto	Truck	Bus	Leq	Ldn	
Ventura	101	2	84	120	2794	25261	7	134	14	10.2	2.4	0.3	35	35	28	84.5	66	61	67	7	No
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	28	84.5	48				No
Magnolia	101	2	84	120	2440	23088	7	134	14	9.6	2.2	0.2	35	35	29	84.5	67	63	69	11	Yes
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	29	84.5	50				No
Magnolia	Burbank	2	84	120	1592	17189	7	134	14	10.4	2.2	0.2	35	35	31	84.5	64	65	67	21	Yes
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	31	84.5	49				No
Burbank	Oxnard	2	84	120	1887	22643	7	134	14	18.4	1.9	0.2	35	35	30	84.5	66	69	70	0	No
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	30	84.5	50				No
Oxnard	Victory	2	84	120	2035	22959	7	134	14	15	2.2	0.2	35	35	30	84.5	67	68	69	0	Yes
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	30	84.5	50				No
Victory	Vanowen	2	84	120	1883	21414	7	134	14	16.9	2.3	0.3	35	35	30	84.5	65	61	68	0	No
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	30	84.5	49				No
Vanowen	ShermanWay	2	84	120	2567	25326	7	134	14	13.8	1.8	0.2	35	35	31	84.5	66	67	68	0	No
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	31	84.5	49				No
ShermanWay	Saticoy	2	84	120	1851	16887	7	134	14	11.9	2.1	0.2	35	35	32	84.5	65	62	67	6	Yes
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	32	84.5	49				No
Saticoy	Roscoe	2	84	120	2602	26973	7	134	14	12.3	1.8	0.2	35	35	31	106	65	60	67	0	No
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	31	106	47				No
Roscoe	Parthenia	2	84	120	1685	14493	7	134	14	13.2	1.3	0.1	35	35	32	84.5	66	64	68	6	Yes
Rapid Bus			84	120			6	204	22	0	0.0	0.0	35	35	32	84.5	51				No
Parthenia	Nordhoff	2	108	120	2625	24113	7	134	14	14.7	1.2	0.1	35	35	32	80	66	63	68	0	Yes
Rapid Bus			108	120			6	204	22	0	0.0	0.0	35	35	32	80	50				No
Nordhoff	Plummer	2	108	120	1710	16372	7	134	14	16.3	1.1	0.1	35	35	32	80	65	63	68	6	Yes
Rapid Bus			108	120			6	204	22	0	0.0	0.0	35	35	32	80	50				No
Plummer	Lassen	2	108	120	1919	17481	7	134	14	15.9	1.3	0.1	35	35	32	80	65	63	68	6	Yes
Rapid Bus			108	120			6	204	22	0	0.0	0.0	35	35	32	80	50				No
Lassen	Devonshire	2	108	120	1649	15415	7	134	14	16.8	1.3	0.1	35	35	32	80	58	57	62	8	No
Rapid Bus			108	120			6	204	22	0	0.0	0.0	35	35	32	80	44				No
Devonshire	Chatsworth	2	108	120	1237	10432	7	134	14	12.2	1.5	0.2	35	35	32	80	63	65	67	3	Yes
Rapid Bus			108	120			6	204	22	0	0.0	0.0	35	35	32	80	50	18			No

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Vanover

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES				TRAFFIC MIX, %				FEET TO ROAD CENTER				Severe Impact						
					Peak Hour	ADT	Pk Hr	ADT	Bus ADT	%Night	Night	Trucks	Med	Hvy	Speed, MPH	Truck		Bus	Leq Ldn	Bus Ldn	Total Ldn		
Rapid Bus	Canoga	2	70	120	2492	16083	30	183	6	204	14	7.7	1.2	0.1	35	35	27	75	66	65	61	66	No
Rapid Bus	Canoga	2	70	120	2497	16105	6	204	6	204	22	0	0.0	0.0	35	35	27	75	66	65	61	0	No
Rapid Bus	Desoto	2	70	120	1623	13956	30	183	6	204	14	13.9	1.9	0.2	35	35	27	75	66	65	61	66	No
Rapid Bus	Mason	2	70	120	1623	8915	30	183	6	204	14	8.1	2.1	0.2	35	35	27	75	66	64	61	57	No
Rapid Bus	Winnetka	2	70	120	2304	15741	30	183	6	204	14	12.2	1.7	0.2	35	35	27	75	66	66	61	67	No
Rapid Bus	Corbin	2	65	120	2212	13802	30	183	6	204	14	10.5	1.2	0.1	35	35	27	75	66	65	61	66	No
Rapid Bus	Tampa	2	70	120	2575	17555	30	183	6	204	14	10.6	1.1	0.1	35	35	26	93	65	64	60	66	No
Rapid Bus	Wilbur	2	93	120	2286	17431	30	183	6	204	14	11.2	1.6	0.2	35	35	27	75	66	65	61	67	No
Rapid Bus	Reseda	2	70	120	2550	17510	30	183	6	204	14	11.5	1.3	0.1	35	35	26	74	66	65	61	67	No
Rapid Bus	Lindley	2	70	120	3227	22461	30	183	6	204	14	11.9	2.1	0.2	35	35	27	74	68	66	61	68	No
Rapid Bus	White Oak	2	70	120	3143	18468	30	183	6	204	14	8.8	1.6	0.2	35	35	27	74	67	65	61	67	No
Rapid Bus	Louise	2	70	120	3625	20399	30	183	6	204	14	8	1.7	0.2	35	35	26	74	68	65	61	67	No
Rapid Bus	Balboa	2	70	120	3345	21127	30	183	6	204	14	9	1.5	0.2	35	35	25	74	67	66	61	67	No
Rapid Bus	Hayvenhurst	2	70	120	3971	23633	30	183	6	204	14	8	1.5	0.2	35	35	25	74	68	66	61	67	No
Rapid Bus	Woodley	2	70	120	3942	24063	30	183	6	204	14	7.4	1.7	0.2	35	35	25	74	68	66	61	67	No
Rapid Bus	I-405	2	70	120	3201	21097	30	183	6	204	14	8.5	1.8	0.2	35	35	25	74	67	66	61	67	No
Rapid Bus	Sepulveda	2	70	120	3139	21564	30	183	6	204	14	8.9	1.5	0.2	35	35	26	74	67	66	61	67	No
Rapid Bus	Kester	2	70	120	3598	23060	30	183	6	204	14	9.1	1.4	0.2	35	35	26	74	68	66	61	67	No
Rapid Bus	VanNuys	2	70	120	3312	22242	30	183	6	204	14	9.2	1.7	0.2	35	35	26	74	68	66	61	67	No
Rapid Bus	Hazletine	2	70	120	3333	19650	30	183	6	204	14	8.2	1.6	0.2	35	35	27	74	68	65	61	67	No
Rapid Bus	Woodman	2	70	120	3137	16457	30	183	6	204	14	6.3	1.7	0.2	35	35	27	74	67	65	61	66	No
Rapid Bus	Fulton	2	70	120	3459	21948	30	183	6	204	14	10.5	1.7	0.2	35	35	27	74	68	66	61	67	No
Rapid Bus	Coldwater	2	70	120	3587	21160	30	183	6	204	14	7.5	1.6	0.2	35	35	26	74	68	66	61	67	No
Rapid Bus	Whitsett	2	70	120	2998	19342	30	183	6	204	14	9.1	1.7	0.2	35	35	26	74	67	65	61	67	No
Rapid Bus	Laurel	2	70	120	2759	13635	30	183	6	204	14	4.9	2.5	0.3	35	35	27	74	67	64	61	66	No
Rapid Bus	Lankershim	2	70	120			6	204	6	204	22	0	0.0	0.0	35	35	27	74	48	64	61	11	25

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Van Nuys

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES				ADT	Pr Hr	ADT	Bus	TRAFFIC MIX, %			FEET TO ROAD CENTER			PREDICTED A-WEIGHTED NOISE LEVELS			Total Ldn	Severe Impact
					Peak Hour	Hour	ADT	%Night					Night	Trucks	Med	Hvy	Auto	Truck	Bus	Leq	Ldn		
Ventura Rapid Bus	SR 101	2	60	120	2987	38924	5	190	12	18.9	1.7	0.2	0.2	35	35	28	48	69	71	63	72	No	
Rapid Bus	Magnolia	2	60	120	2234	31421	6	204	22	0	0.0	0.0	0.0	35	35	28	48	50				No	
Rapid Bus	Magnolia	2	60	120	2918	33170	6	204	22	19.7	2.3	0.3	0.3	35	35	28	48	68	71	63	72	No	
Rapid Bus	Burbank	2	60	120	2439	25896	6	204	22	15.5	2.2	0.2	0.2	35	35	30	48	69	71	64	72	No	
Rapid Bus	Oxnard	2	60	120	2910	26540	6	373	13	13.9	1.8	0.2	0.0	35	35	31	48	68	71	64	72	No	
Rapid Bus	Victory	2	60	120	2462	23560	6	204	22	12.6	1.7	0.2	0.0	35	35	31	48	69	71	64	71	No	
Rapid Bus	Vanowen	2	72	120	2539	26839	6	204	22	13.1	1.8	0.2	0.0	35	35	31	48	69	71	65	72	No	
Rapid Bus	Shermanway	2	72	120	2509	26041	6	204	22	15.1	1.7	0.2	0.0	35	35	31	48	69	71	65	72	No	
Rapid Bus	Sattocoy	2	72	120	3114	34173	8	342	13	14.2	1.7	0.2	0.0	35	35	31	48	69	71	65	72	No	
Rapid Bus	Roscoe	2	72	120	2867	31164	8	342	13	14.9	1.6	0.2	0.0	35	35	30	48	70	72	65	72	No	
Rapid Bus	Parthenia	2	72	120	2401	30936	8	159	12	15.6	1.9	0.2	0.0	35	35	31	48	69	72	65	73	No	
Rapid Bus	Northhoff	2	60	120	2207	19952	8	159	12	17.1	2.0	0.2	0.0	35	35	29	60	49	69	62	70	No	
Rapid Bus	Plummer	2	60	120	2533	25589	8	159	12	18.6	1.3	0.1	0.0	35	35	31	60	66	68	63	69	Yes	
Rapid Bus	Woodman	2	60	120	2185	26210	8	159	12	11.1	1.4	0.2	0.0	35	35	27	60	67	67	62	69	No	
Rapid Bus	Canterbury	2	60	120	2342	30792	8	159	12	18.2	1.4	0.2	0.0	35	35	30	60	66	69	63	70	No	
Rapid Bus	Arleta	2	60	120	1996	22056	8	159	12	18.4	1.4	0.2	0.0	35	35	30	60	67	68	63	69	No	
Rapid Bus	I-5	2	60	120	1418	16315	8	159	12	14	1.6	0.2	0.0	35	35	30	60	67	67	62	68	No	
Rapid Bus	Laurel Cnyn	2	60	120	1418	16315	8	159	12	11	1.4	0.2	0.0	35	35	31	60	66	67	63	69	Yes	
Rapid Bus	Telfair	2	60	120	1418	16315	8	159	12	12.8	1.4	0.2	0.0	35	35	32	60	65	67	63	68	Yes	
Rapid Bus	San Fernando	2	60	120	507	3668	8	159	12	21	1.3	0.1	0.0	35	35	31	60	65	67	63	69	Yes	
Rapid Bus	Glennooks	2	60	120	192	1445	8	159	12	21	1.3	0.1	0.0	35	35	32	60	60	64	63	67	Yes	
Rapid Bus	Foothill	2	60	120			8	159	12	21	1.3	0.1	0.0	35	35	32	60	57	63	63	66	Yes	
Rapid Bus		2	60	120			6	204	22	0	0.0	0.0	0.0	35	35	32	60	50	50	43	43	12	No

Moderate SF MF

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis
Victory

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES				TRAFFIC MIX, %				SPEED, MPH				FEET TO ROAD CENTER				PREDICTED A-WEIGHTED NOISE LEVELS			Severe Impact
					Peak Hour	ADT	PK Hr	ADT	Bus	%Night	NIGHT	RUCKS	MED	HVY	Auto	Truck	Bus	Center	Leq	Ldn	Bus Ldn	Total Ldn		
Topanga Rapid Bus	Owensmouth	2	64	120	2492	32010	6	123	6	204	11	16.3	0.9	0.1	35	35	27	74	66	61	68	68	68	No
Owensmouth VanNuy	Canoga	2	64	120	2492	32010	6	204	6	204	11	16.3	1.7	0.2	35	35	28	74	66	61	68	68	68	No
Canoga VanNuy	DeSoto	2	64	120	2497	31885	6	123	6	204	11	16.3	1.8	0.2	35	35	27	74	66	61	68	68	68	No
DeSoto Mason	Mason	2	64	120	1623	18423	6	123	6	204	11	12.4	3.0	0.3	35	35	31	74	65	62	66	66	66	No
Mason VanNuy	Winnetka	2	64	120	1623	18423	6	123	6	204	11	12.4	3.0	0.3	35	35	31	74	65	62	66	66	66	No
Winnetka VanNuy	Corbin	2	64	120	23104	26362	6	123	6	204	11	12.6	1.9	0.2	35	35	29	74	66	61	67	67	67	No
Corbin VanNuy	Tampa	2	64	120	2212	25056	6	123	6	204	11	12.2	1.7	0.2	35	35	29	74	66	62	66	66	66	No
Tampa VanNuy	Wilbur	2	64	120	2575	29430	6	123	6	204	11	13.4	1.5	0.2	35	35	27	105	64	59	64	65	65	No
Wilbur VanNuy	Reseda	2	64	120	2286	29156	6	123	6	204	11	14.9	1.6	0.2	35	35	27	105	46	61	67	67	67	No
Reseda VanNuy	Lindley	2	64	120	2550	29855	6	123	6	204	11	13.5	1.5	0.2	35	35	28	74	66	61	67	67	67	No
Lindley VanNuy	WhiteOak	2	64	120	3227	34871	6	123	6	204	11	13.6	1.5	0.2	35	35	31	74	66	62	66	67	67	No
WhiteOak VanNuy	Louise	2	64	120	3143	32406	6	123	6	204	11	12.2	0.2	0.2	35	35	30	105	47	60	66	65	65	No
Louise VanNuy	Balboa	2	64	120	3664	39711	6	123	6	204	11	14.4	2.4	0.3	35	35	28	74	68	61	69	69	69	No
Balboa VanNuy	Hayvenhurst	2	64	120	3428	39804	6	123	6	204	11	13.6	1.7	0.2	35	35	29	105	47	60	67	67	67	No
Hayvenhurst VanNuy	Woodley	2	64	120	4130	48378	6	123	6	204	11	14.7	1.6	0.2	35	35	26	74	68	61	69	69	69	No
Woodley I-405	I-405	2	64	120	3942	44261	6	123	6	204	11	16.3	2.8	0.3	35	35	28	74	68	61	70	70	70	No
I-405 VanNuy	Sepulveda	2	64	120	3201	43339	6	123	6	204	11	21.9	1.5	0.2	35	35	29	74	67	62	70	70	70	No
Sepulveda VanNuy	Kester	2	64	120	3139	38167	6	123	6	204	11	14.2	1.3	0.1	35	35	30	105	47	60	66	65	65	No
Kester VanNuy	VanNuy	2	64	120	3598	43677	6	123	6	204	11	15.2	1.6	0.2	35	35	30	105	47	60	66	65	65	No
VanNuy VanNuy	Hazeltine	2	64	120	3312	38940	2	30	23	15.2	1.6	0.2	0.0	0.0	35	35	28	74	48	61	70	70	70	No
Hazeltine VanNuy	Woodman	2	64	120	3333	40986	2	30	23	15.1	2.4	0.3	0.0	0.0	35	35	29	74	48	61	69	69	69	No
Woodman VanNuy	Fulton	2	64	120	3143	40375	2	30	23	17	2.6	0.3	0.0	0.0	35	35	30	74	49	62	70	70	70	No
Fulton VanNuy	Coldwater	2	64	120	3459	44462	17	3	23	16.9	2.8	0.3	0.0	0.0	35	35	29	74	48	61	70	70	70	No
Coldwater VanNuy	Whitsett	2	64	120	3587	49199	2	30	23	19.2	2.3	0.3	0.0	0.0	35	35	28	105	47	60	69	69	69	No
Whitsett VanNuy	Laurel	2	64	120	2998	41494	2	30	23	20.5	2.1	0.2	0.0	0.0	35	35	31	74	49	62	70	70	70	No
Laurel VanNuy	Collfax	2	64	120	2592	24526	2	30	23	25.7	1.4	0.2	0.0	0.0	35	35	31	74	49	62	68	67	67	No
Collfax VanNuy	Lankershim	2	64	120	1782	21877	2	30	23	24.4	1.8	0.2	0.0	0.0	35	35	30	74	49	62	68	67	67	No
Lankershim VanNuy		2	64	120			6	204	6	204	22	0	0.0	0.0	35	35	30	74	49	62	68	67	67	No

TRAFFIC NOISE LEVELS FROM EXISTING TRAFFIC
OrangeLine Alternative Analysis Topanga Canyon

Start	End	Category	Width FT	Alpha Deg	NUMBER OF VEHICLES				ADT	PK Hr	Bus ADT	%NIGHT	TRAFFIC MIX, %			SPEED, MPH		BUS	FEET TO ROAD CENTER	PREDICTED A-WEIGHTED NOISE LEVELS		Total Ldn	Severe Impact
					Peak Hour	ADT	Bus ADT	NIGHT					TRUCKS	MED	HVY	AUTO	TRUCK			Leq	Ldn		
Victory	VanOwen	2	60	120	3219	47624	3	14	21	21.3	2.9	0.3	35	35	23	58	69	71.3	58.1	71.5	No	No	
Rapid Bus	VanOwen	2	60	120	2594	34536	3	14	21	19.5	2.7	0.3	35	35	23	58	68	69.7	59.5	70.1	No	No	
Rapid Bus	ShermanWay	2	60	120	2614	38128	3	14	21	21.5	1.3	0.1	35	35	26	58	67	69.8	59.1	70.1	No	No	
Rapid Bus	Saticoy	2	60	120	2367	38314	3	14	21	22.8	1.8	0.2	35	35	26	58	67	70.2	59.1	70.5	No	No	
Rapid Bus	Strathern	2	60	120	2888	42017	3	14	21	22.1	1.8	0.2	35	35	27	58	68	70.5	59.2	70.8	No	No	
Rapid Bus	Roscoe	2	60	120	2333	32553	3	14	21	20.5	1.5	0.2	35	35	25	58	67	69.1	58.7	69.4	No	No	
Rapid Bus	Parthenia	2	60	120	3004	43687	3	14	21	17.5	1.7	0.2	35	35	27	58	68	69.9	59.3	70.3	No	No	
Rapid Bus	Nordhoff	2	60	120	2409	32512	4	87	13	20.3	1.8	0.2	35	35	28	58	67	69.5	59.5	69.9	No	No	
Rapid Bus	Plummer	2	60	120	2409	32512	4	87	13	20.3	1.1	0.1	35	35	28	58	67	69.2	59.6	69.7	No	No	
Rapid Bus	Lassen	2	60	120	2409	32512	4	87	13	20.3	0.0	0.0	35	35	28	58	50				No	No	

**APPENDIX 8-F
LIST OF PREPARERS**

APPENDIX 8-F: LIST OF PREPARERS

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David Yale, Director, Regional Transportation Planning & Development
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Jennifer Weiland, Biologist/Environmental Analyst
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Melissa Clemons, Field Biologist

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Cornelis Overwig, Senior Consultant

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Souyma Ananthanarayanan, Assistant Planner
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