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PASADENA LIGHT RAIL FINAL SUPPLEMENTAL EIR

Los Angeles County Transportation Commission

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**PASADENA-LOS ANGELES LIGHT RAIL TRANSIT PROJECT
FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (FSEIR)
STATE CLEARING HOUSE NO. 89082327**

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SECTION 1
INTRODUCTION TO EIR

Purpose of EIR

This supplemental environmental impact report (SEIR) has been prepared for the Los Angeles County Transportation Commission (LACTC) in accordance with the California Environmental Quality Act (CEQA) and state "Guidelines for the Implementation of the California Environmental Quality Act", as amended. The LACTC is the designated lead agency for this project.

The determination that the LACTC is the lead agency was made in accordance with Section 21067 of the EIR guidelines which defines the lead agency as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect on the environment."

The draft SEIR was completed in September 1992 and circulated for public review and comment for the mandatory period of time (45 days). During this review period, public agencies, responsible agencies, and interested parties were asked to comment on the adequacy of the SEIR.

Format of Final SEIR (FSEIR)

This FSEIR consists of the following sections:

- **Section 1: Introduction to the FSEIR.** This section describes the purpose and format of the FSEIR.
- **Section 2: Summary of Environmental Analysis.** This section includes a summary description of the proposed light rail transit project and the environmental impacts anticipated to result from the construction and operation of the project.
- **Section 3: List of Public Agencies, Organizations, and Businesses/Individuals Commenting.** Persons commenting on the draft SEIR are identified.
- **Section 4: Responses to Comments on draft SEIR.** Individuals and agencies commenting on the draft SEIR are identified along with their comments. The preparers of the draft SEIR and lead agency representatives have responded to the individual comments received.

- **Section 5: Responses to Testimony Received in Public Hearings.** This section includes comments received from public testimony given at public hearings held for the draft SEIR. The preparers and lead agency representatives have responded to individual comments received.
- **Section 6: Errata and Changes to the draft SEIR.** Corrected and updated information is provided in the FSEIR.

SECTION 2
SUMMARY OF ENVIRONMENTAL IMPACT ANALYSIS

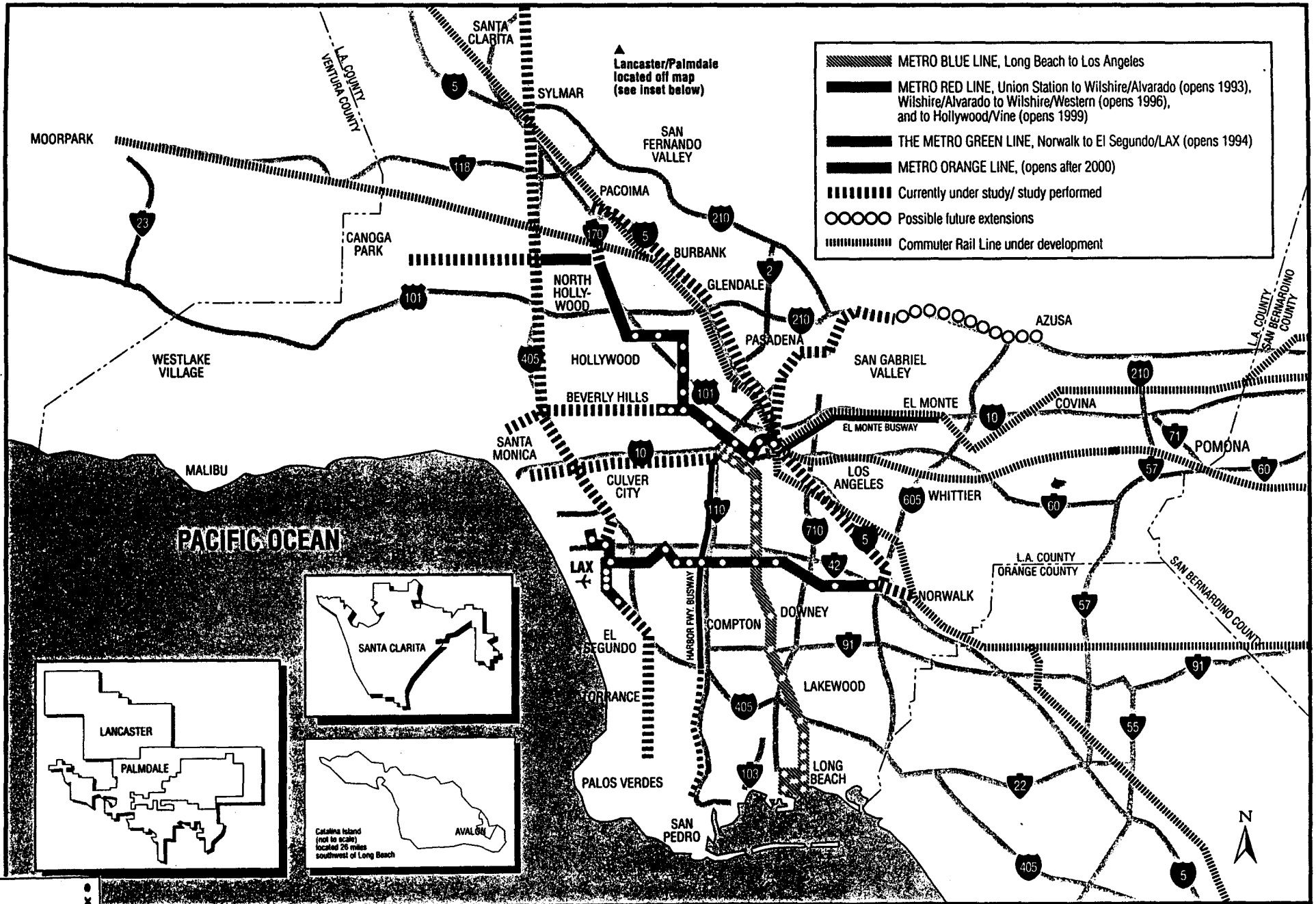
2.1 SUMMARY DESCRIPTION OF PROPOSED PROJECT

In the Spring of 1990, LACTC certified the EIR for the Pasadena-Los Angeles Light Rail Transit Project. However, since that time, requests for alterations to the project and further environmental review have made it necessary to prepare a Supplemental EIR. A supplemental EIR is prepared when information of substantial importance to the project becomes available which was not known at the time of certification of the previous EIR.

The proposed project consists of three areas of modification and additions to the previously certified and approved EIR:

- **Maintenance Facilities.** Additional analysis beyond the certified EIR has been requested for the proposed light rail maintenance facility at Taylor Yard. Additionally, two other sites for the maintenance facility are under consideration, including a large parcel northeast of the Chinatown community referred to as the "Cornfield" site, and along the west bank of the Los Angeles River between Macy Street and the Santa Ana Freeway.
- **Station Locations.** The City of Pasadena has requested a station at Allen Street (replacing the previously cleared stations at Hill and Altadena Avenues) and a station at Fillmore Street (replacing stations at Glenarm and California Streets). Previously environmentally cleared stations at Fair Oaks Avenue and Los Robles Avenue have also been dropped from consideration. A new station is also being considered along the approved alignment adjacent to the Southwest Museum on Marmion Way in Mount Washington.
- **Grade Separations.** Two grade separations are under consideration. One is in the vicinity of Colorado Boulevard in the City of Pasadena and the other is at Figueroa and Marmion Way in the City of Los Angeles.

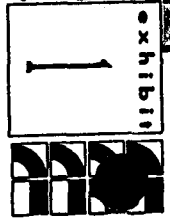
The regional context of the proposed project is indicated in Exhibit 1. Exhibit 2 illustrates the Pasadena-Los Angeles Light Rail alignment. The project modifications and additions, as analyzed in this SEIR, are referred to as "alternatives" to the previously certified and approved project. The analysis in this SEIR focuses only on those environmental issues specific to the project modifications that could either alter the findings of the previously certified EIR, or were not previously environmentally cleared. The previous EIR examined two main alignment alternatives: the Highland Park Alignment which would extend through Highland Park, South Pasadena, and Pasadena; and, the









LOS ANGELES 300-MILE METRO RAIL PLAN

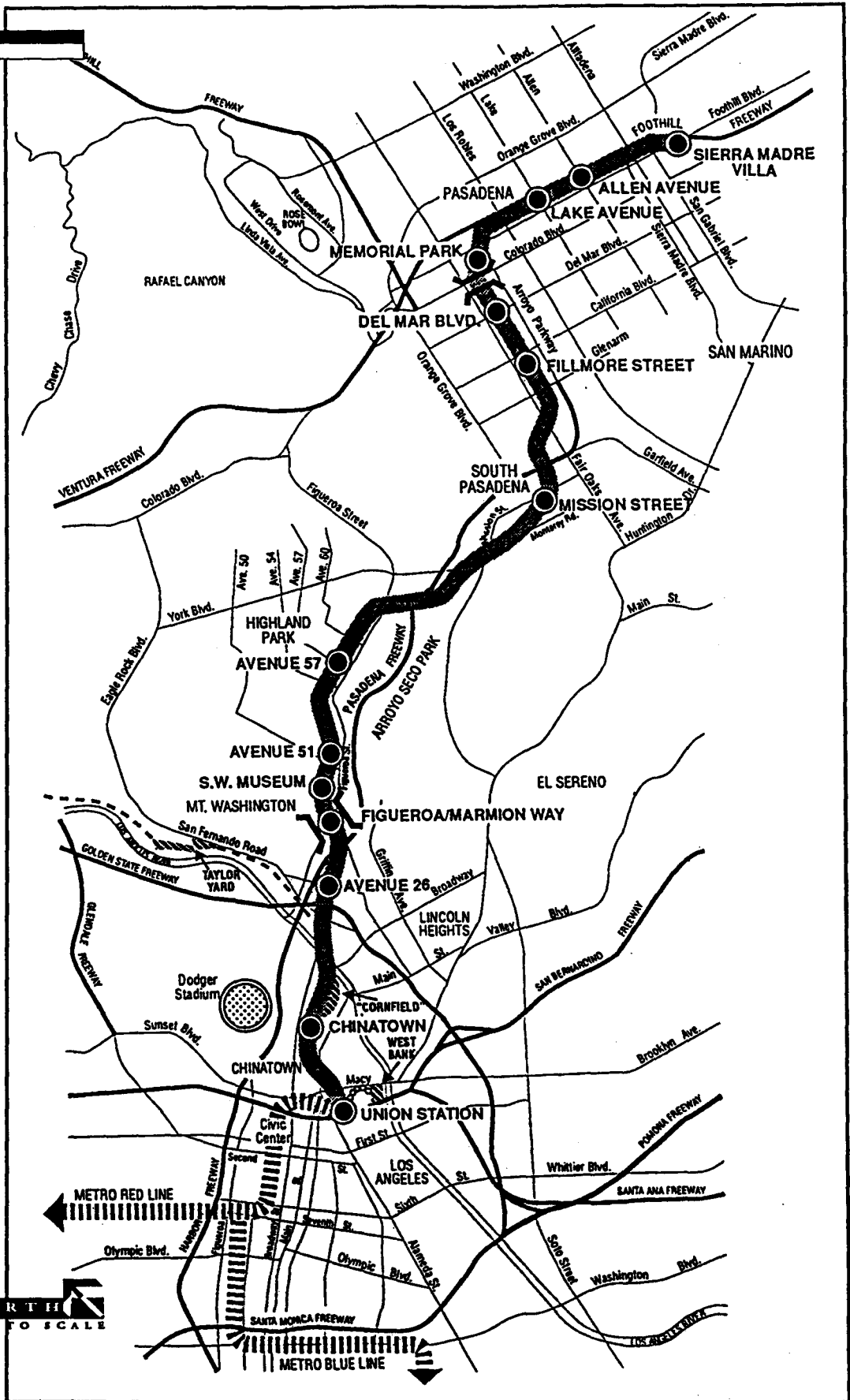
Pasadena Light Rail Final Supplemental EIR

Michael Brandman Associates



LEGEND

-  ALIGNMENT
-  STATION LOCATION
-  PROPOSED GRADE SEPARATIONS
-  PROPOSED MAINTENANCE YARD SITES
-  GLENDALE LINE
-  NON-REVENUE CONNECTOR



PASADENA LRT ALIGNMENT

Pasadena Light Rail Final Supplemental EIR

Michael Brandman Associates

exhibit
2

North Main Street Alignment which would extent through Lincoln Heights and El Sereno. Downtown alignment options to connect the Long Beach LRT and two maintenance yard locations were also analyzed in the previous EIR. Environmental clearance has already been provided to these alignment alternatives and, therefore, do not require further environmental documentation. This SEIR only analyzes specific project modifications (maintenance facilities, station locations, and grade separations) not cleared in the certified EIR.

2.2 **ENVIRONMENTAL EFFECTS AND MITIGATION MEASURES**

Table 2-1, located at the end of Section 2, summarizes environmental impact and mitigation measures for the modifications and alternatives. Impacts that remain after mitigation are noted in the summary as "unavoidable adverse impacts" if the project is approved as proposed (CEQA Section 21081).

Impacts of the project are rated in the table according to the following:

- **Not Significant.** Adverse effects not substantial according to CEQA, but should be mitigated to the extent feasible.
- **Significant.** Substantial adverse impacts or changes to the environment as defined by CEQA.
- **Beneficial.** Beneficial impacts resulting from the implementation of the proposed project.

The environmental analysis identified three unavoidable adverse impacts - those significant environmental impacts which remain after mitigation:

Transportation and Circulation. Significant adverse impacts on traffic circulation are expected during the construction of the Marmion Way and Figueroa Street grade separation. However, this impact will only be temporary. Under all Colorado Boulevard grade separation scenarios (no-build, at-grade, or subway) the intersection of Fair Oaks Avenue and Colorado Boulevard would be impacted beyond an acceptable level of service. There are no reasonable mitigation measures that would reduce the level of impact to an acceptable level of service.

Aesthetics. The aerial structures proposed for the grade separation at Marmion/Figueroa and the yard lead to the West Bank Maintenance Yard Option are considered an unavoidable visual impact. Partial mitigation of the aerial structures is possible through attractive and community-sensitive architectural design treatments.

2.3 CUMULATIVE IMPACTS

This SEIR analyzes the cumulative impacts from related projects. Related projects include developments or improvements that are closely related to the proposed project from an operational standpoint. For the purposes of this analysis, regional transit projects currently under construction, planned, or proposed are considered cumulative related projects.

The certified EIR analyzed cumulative impacts and since the time of certification no additional transit projects of regional significance have been constructed, proposed, or planned. Thus, no supplemental analysis is required in this SEIR. It should be noted that development of the related projects would result in the intensification of transit related development. Although the intensification of development generally results in increased trip generation to dense areas of development, the cumulative effects of urban densification near regional modes of transportation would result in the reduction of the number of vehicle miles travelled and increased mobilization of the region's population. This, in turn, could lead to reduced air pollutant levels in the region.

Also, development of the related projects would result in increased demands on electrical and fossil fuel sources. However, increased use of the related projects will be effective in reducing automobile traffic, which consumes greater amounts of fossil fuels, and could result in a net reduction in demand on nonrenewable energy sources.

2.4 ALTERNATIVES TO THE PROPOSED PROJECT

The previously certified EIR for the approved Pasadena-Los Angeles Light Rail Transit Project analyzed a range of reasonable project alternatives as defined by the state CEQA Guidelines, Section 15126 (d). A description of these alternatives and their evaluation is also provided in Appendix C of the draft SEIR. The Highland Park, Union Station "no subway," Alternative was selected and approved by the LACTC in the Spring of 1990.

While none of the alternatives considered in the earlier route refinement studies or in the previously certified EIR were completely free of adverse environmental impacts, the Highland Park Alternative represented the best alternative in terms of traffic impacts and in terms of structural displacement, as it will use its own separate right-of-way.

Inasmuch as this alignment is approved and funding available, the line may proceed with construction at this time, no additional alignment alternatives are considered in this analysis. The "project" as described in Section 2.1, Summary and Description of the Proposed Project, of this FSEIR comprises light rail transit (LRT) maintenance and storage yard alternatives, station location modifications, and grade separations not previously considered in the EIR certified and approved in the spring of 1990. These "alternatives" are addressed throughout Sections 3.0 and 4.0 of this EIR and are under consideration by the Commission. This SEIR ensures that all reasonable requests for alterations to the approved alignment have been analyzed, that sufficient environmental review has been provided, and that when approved, the project "alternatives" selected demonstrate integration of project alternatives that can further mitigate previously identified project impacts, and that the final project implementation, construction, and operations incorporates the results of this analysis.

2.4.1 NO-BUILD ALTERNATIVE

The no-build alternative would result in the construction and operation of the previously approved LRT alignment absent of the project modifications analyzed in Section 4.0 of the Draft SEIR. The alternatives analyzed in the Draft SEIR represent minor modifications to the approved Pasadena-Los Angeles Light Rail Transit Project. The certified EIR prepared for the previously approved project recommended selection of the Highland Park, Union Station "no subway" alternative as the environmentally superior alternative in terms of minimizing environmental impacts. Selection of the no-build alternative would result in implementation of the previously identified environmentally superior alternative, and would, therefore, still achieve the transit objectives of the previously approved project.

Selection of the no-build alternative would preclude the proposed modifications or improvements (maintenance facility, station locations, and grade separations) and benefits related to specific areas along the alignment for traffic and circulation, aesthetics (provision of additional landscaping/buffers), and land-use compatibility.

The primary issues to be resolved and the subject of this SEIR are selection of the maintenance and storage yard location, and identification of the alternative station locations to be constructed in Los Angeles and Pasadena. Also, the extent of mitigation required at future grade separations needs to be resolved through the public review process and FEIR preparation.

A number of important issues were raised by community held prior to the preparation of the Draft SEIR. Additional analysis beyond the certified EIR has been requested for the light rail maintenance facility at Taylor Yard. Issues raised included potential noise, air quality, traffic, safety, and visual impacts of the Taylor Yard maintenance facility alternative on residences, schools, and businesses located in the vicinity of the proposed yard site.

Ultimately, the decision to approve the project is left to the decision-making authority, the LACTC, Board of Commissioners. As explained in earlier sections, the LACTC has a duty "to avoid or minimize environmental damage where feasible" (CEQA Guidelines Section 15021 (a)). If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable" (CEQA Guidelines, Section 15093, subd. (a)). Thus, where a project will cause significant adverse environmental effects that are not "at least substantially mitigated," the LACTC can still approve the project if the LACTC issues a "statement of overriding considerations" setting forth its specific reasons for balancing competing policies and factors as it did (CEQA Guidelines, Section 15093 subd. (b)).

Table 2-1 summarizes environmental impacts and mitigation measures identified for the alternative project considerations. Impacts that remain after mitigation are noted as "unavoidable adverse impacts."



TABLE 2-1

SUMMARY TABLE

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
4.1 LAND USE		
<p>Implementation of the Taylor Yard Wye would result in the demolition of a LADOT storage and maintenance yard and either the Old City Jail, or the Anhing Corporation storage structure. Additionally, development of various components discussed in this Supplemental EIR will require partial and full takings for completion of criteria curves and a service and maintenance yard, respectively.</p>	<p>The LACTC would provide just and appropriate compensation in accordance with California law to property owners. In the acquisition of real property by a public agency, the state requires that agencies: (1) ensure consistent and fair treatment for owners of real property; (2) encourage and expedite acquisition by agreement in order to avoid litigation and relieve congestion in the courts; and (3) promote confidence in public land acquisition.</p>	<p>Implementation of the above mitigation measures would reduce land use impacts to an acceptable level.</p>
<p>In areas where proposed stations do not include parking facilities, parking overflow may become a problem. The extent of this problem cannot be identified until the Light Rail Transit system is in operation.</p>	<p>The following mitigation measures are recommended:</p> <ol style="list-style-type: none"><li data-bbox="743 898 1505 1133">1. Once the light rail facility is in operation, a parking analysis shall be prepared to identify any parking overflow problems. Special parking permit programs in residential areas or enforcement of time limits in commercial areas can be implemented to reduce the impact of parking overflow if supported by the findings of the parking analysis.<li data-bbox="743 1174 1505 1339">2. If Taylor Yard is chosen for the Police Academy training facility and/or a Burbank/Glendale Transit station, in addition to the LRT service and maintenance facility, the LACTC development activities shall be coordinated with the City of Los Angeles, Bureau of Engineering.	

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
<p>4.2 TRANSPORTATION AND CIRCULATION</p>		
<p>Traffic circulation around the Figueroa Street/Marmion Way grade separation will be impacted during construction.</p>	<p>1. At the Taylor Yard Wye Connector, construction activity shall keep clear of driveways for Anhing and M&M to allow truck movements into these businesses, and to avoid impacting existing traffic and parking demands of adjacent businesses, that use Avenue 19 for employee parking and for delivery access.</p>	<p>Construction of the Marmion Way and Figueroa Street grade separation would result in temporary, but unavoidable, significant adverse impacts on traffic circulation during construction.</p>
<p>The following intersections would be significantly impacted by project related traffic:</p>		
<p>Arroyo Parkway/California Boulevard Glenarm Street/Arroyo Parkway Fair Oaks Avenue/Colorado Boulevard</p>	<p>2. Closure of lanes and/or entire roadways to allow for the construction of the Marmion Way and Figueroa Street grade separation shall be avoided during the peak commute hours of 6 a.m. to 9 a.m. and 3 p.m. to 6 p.m.</p> <p>3. Complete closure of Marmion Way for construction of the Southwest Museum Station shall be avoided.</p> <p>4. During construction of the Colorado Boulevard grade separation, all east-west streets shall be maintained at full capacity.</p> <p>5. Construction of the Allen Avenue Station shall be conducted so that one lane of traffic in each direction is maintained at all times on Allen Avenue.</p> <p>6. Provided that Fillmore Street is closed, Arroyo Parkway at California Boulevard should be widened on the southbound approach to provide a southbound right turn lane. Arroyo Parkway at Glenarm Street should be widened on the northbound approach to provide a northbound right turn lane.</p>	<p>The intersection of Fair Oaks Avenue/Colorado Boulevard would be impacted beyond an acceptable level of service under all Colorado Boulevard grade separation scenarios; no-build, at grade, or subway. There are no reasonably feasible mitigation measures that would reduce the level of impact to an acceptable level of service.</p>

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
4.3 GEOLOGY, SOILS, AND SEISMICITY		
<p>The proposed project will not generate significant impacts. The proposed project will comply with the seismic criteria set forth in the Seismic Safety Element of the Pasadena and Los Angeles City General Plans, all applicable portions of the municipal Codes, the seismic safety requirements of the Departments of Building and Safety, the current Uniform Building Code, and the seismic design parameters of the Structural Engineers Association of California.</p>	<p>With incorporation of measures required for all projects built within the City and standard engineering practices, the project will not generate significant impacts.</p> <ol style="list-style-type: none">1. The project shall conform to the City of Los Angeles Seismic Safety Plan and applicable portions of the Municipal Code and seismic safety requirements of the Department of Building and Safety.2. All structures shall be designed in accordance with the current Uniform Building Code and the seismic design perimeters of the Structural Engineers Association of California.3. Frequent in-grading inspections should be conducted during construction. These inspections are necessary to substantiate previous geologic findings and to discover unforeseen conditions that may be exposed during grading. Any unanticipated adverse conditions encountered should be evaluated by the project engineering geologist and the soils engineer. Appropriate recommendations made will be followed.4. All soils disturbed during excavation shall be compacted to at least 90 percent of the maximum density as determined by ATSM D-1557-78 standard.	<p>No unavoidable significant adverse impacts are anticipated with implementation of recommended mitigation measures.</p>

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
<p>4.4 AIR QUALITY</p>	<p><u>Short-Term (Construction) Emissions</u></p>	<p>Although project-specific emissions associated with the short-term use of construction equipment and long-term consumption of energy may cause measurable increases in existing exceedances of ambient air quality standards, the remaining air quality impacts assessed in this analysis would either be beneficial, below a level of significance, or reduced to a level below that of significance through mitigation. Overall implementation of the project would substantially reduce long-term mobile emissions, offsetting emissions from other existing and reasonably foreseeable projects. No significant cumulative impacts to air quality are anticipated.</p>
<p>No significant impacts are expected. Air quality mitigation measures are proposed to reduce any potential adverse impacts and comply with regional air quality regulations.</p>	<p>Concurrent with an application for a grading permit, the applicant shall propose measures to suppress fugitive dust generated during construction activities. These measures shall be incorporated as conditions of grading permit approval. SCAQMD Rule 403 requires that fugitive dust be controlled so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance offsite.</p>	
	<p>Suppression measures may include:</p>	
	<ul style="list-style-type: none"> ● Twice daily watering (With use of reclaimed water or chemical soil binder where feasible) ● Suppression of grading activities during periods of high winds ● Wheelwashing of construction equipment ● Revegetating graded areas immediately after soil disturbance 	

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
AIR QUALITY (continued)	<u>Long-Term Emissions</u> <p>The proposed project would have a beneficial impact in the long-term with respect to mobile source emissions. However, generation of electricity required to serve the project would represent a significant impact with respect to stationary source emissions. The following measures would reduce long-term stationary source emissions:</p> <ol style="list-style-type: none">1. Prior to the issuance of building permits for development onsite, the applicant shall provide evidence demonstrating compliance with all SCAQMD regulations, including Regulation XIII, New Source Review.2. LACTC shall evaluate available options to reduce the amount of energy required to operate the Pasadena Light Rail Transit project alternatives, including alternative energy sources, use of clean fuel generators at maintenance facilities, energy-efficient equipment, limitation of operating hours, and implementation of energy-efficient automated controls for system operation. Additional measures would include the use of energy-efficient, low sodium parking lot lights in the park-and-ride facilities, the provision of adequate ventilation systems in enclosed parking facilities, use of lighting controls and energy-efficient lighting, provision of recycling bins in addition to trash bins (including contracting for recycling services), and the provision of dedicated parking spaces with electrical outlets for electrical vehicles.	

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
4.5 NOISE AND VIBRATION		
<p>No significant impacts are expected. Noise and vibration mitigation measures are proposed to reduce any potential adverse impacts.</p>	<p>The following mitigation measures are required by law or are included in the project to minimize impacts of project noise in the vicinity of the proposed project site:</p> <ol style="list-style-type: none">1. Short-term construction noise:<ol style="list-style-type: none">a. Heavy construction activities shall be limited to weekday hours from 7 a.m. to 6 p.m. with minimal activity on weekends, to the extent required by the Cities of Los Angeles and Pasadena exterior noise limits.b. Properly muffled construction equipment and trucks shall be used.c. During construction, portable sound barriers, or other techniques, shall be used at noise sensitive locations to ensure compliance with local noise ordinances. For example, an 8-foot perimeter barrier along both sides of the corridor during construction would help reduce the noise level by approximately 6 to 8 Db for ground floor construction. Portable barriers could also be used to surround noisy equipment during operation; this would help to reduce levels by 6 to 8 Db.	<p>No unavoidable adverse noise or vibration impacts would be associated with the proposed project.</p>

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
<u>NOISE AND VIBRATION (continued)</u>	<p>2. Vibration from Light Rail Transit Operations:</p> <p>a. For the Colorado Avenue subgrade segment, the rail subgrade structure shall not be in direct contact with a building structure or foundation. In cases where this is not possible, an elastomer element should be placed between the rail subgrade structure and the building or foundation to prevent direct transmission of groundborne noise and vibration into the building. If preliminary engineering concludes that vibration impacts cannot be adequately addressed, this grade separation may not be pursued.</p>	
<u>4.6 LIGHT AND GLARE</u>	<p>1. During construction of the Light Rail Transit alternative modifications, all safety lighting, construction equipment, and additional sources of lighting shall be shielded so as not to be visible 50 feet from the construction site.</p> <p>2. Maintenance and storage facility, station area, and guideway lighting fixtures shall incorporate directional shielding where needed to avoid the intrusion of unwanted light and glare into adjacent sensitive land uses, such as residential areas.</p> <p>3. Traction power substations shall be shielded from adjacent sensitive land uses.</p>	<p>Localized significant unavoidable adverse effects will exist on streets and at station crossings and maintenance yard facilities where lighting is necessary for safe operation of the Light Rail Transit.</p>
<p>No additional impacts beyond those identified in the certified EIR. Mitigation measures included in the certified EIR are applicable, and have been included in this Supplemental EIR.</p>		

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
<u>LIGHT AND GLARE (continued)</u>	4. Walls constructed for noise abatement and landscaping will also screen lighting from land uses adjacent to the Light Rail Transit system.	
4.7 <u>RISK OF UPSET/HEALTH AND SAFETY</u>		
No significant impacts are expected. Implementation of mitigation measures should maintain a level of risk consistent local, state and federal regulatory agencies.	<p data-bbox="743 581 909 609"><u>Taylor Yard</u></p> <ol style="list-style-type: none"> <li data-bbox="743 651 1507 781">1. Prior to project operation, the current compliance efforts for hazardous materials used by LACTC shall be expanded to ensure compliance with applicable laws and regulations. <li data-bbox="743 823 1507 922">2. If the linear configuration is implemented, remediation of the entire sale parcel will be completed to the satisfaction of DTSC prior to the onset of grading operations. <p data-bbox="743 964 947 992"><u>Cornfield Yard</u></p> <ol style="list-style-type: none"> <li data-bbox="743 1034 1507 1164">1. Prior to project operation, the current compliance efforts for hazardous materials initiated by LACTC shall be expanded to ensure compliance with applicable laws and regulations. <li data-bbox="743 1206 1507 1377">2. Prior to the issuance of grading permits, investigation for the presence of cryptic tanks and abandoned oil wells using geophysical methods shall be conducted by a qualified environmental professional to assess any potential presence of hazardous materials. Soil sampling or a soil 	With implementation of the mitigation measures, impacts associated with hazardous materials will be reduced to a level considered less than significant.

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
Colorado Boulevard Subgrade (continued)	5. Prior to the issuance of any demolition or grading permits, an adequate monitoring and/or bonding program shall be established between the City of Pasadena and property owners to ensure that demolition and construction vibration impacts do not adversely affect offsite structures.	
4.10 PUBLIC UTILITIES RELOCATION		
No significant impacts are anticipated.	The following mitigation measures are suggested to prevent loss of service to utility consumers. 1. LACTC shall prepare and maintain a list of persons that would be affected by losses of power, sewer, gas, and/or water main ruptures for notification and emergency service purposes. 2. All potentially affected utility consumers shall receive advanced notification by LACTC/RCC of construction activities. 3. Emergency back up service shall be made available by LACTC in the event of disruption in service.	No unavoidable significant adverse effects are anticipated following implementation of the mitigation measures.

TABLE 2-1 (continued)

<u>Environmental Impact</u>	<u>Mitigation Measures</u>	<u>Unavoidable Adverse Impacts</u>
<u>RISK OF UPSET/HEALTH AND SAFETY (continued)</u>	<p>organic vapor survey shall be performed prior to excavation or grading. The results of these studies shall be submitted to the DTSC for review.</p> <p>3. If warranted, subsurface investigation and sampling shall be undertaken prior to development and appropriate remediation measures developed, prior to the issuance of grading permits. The results of the remediation activities shall be submitted to DTSC for review and approval. These remedial actions shall consist of the removal and disposal or treatment of affected soils according to all applicable federal, state, and local regulations.</p>	
	<u>West Bank Option</u>	
	<p>1. Prior to project operation, the current compliance efforts for hazardous materials initiated by LACTC shall be expanded to ensure compliance with applicable laws and regulations.</p> <p>2. Prior to purchase of the site by LACTC, a Phase I Environmental Site Assessment shall be conducted.</p>	

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
4.8 AESTHETICS		
Development of the aerial structures at the West Bank Option and the Figueroa Street/Marmion Way grade separation will result in an unmitigable impact.	<p>The following mitigation measures will be effective in reducing the adverse visual impacts associated with modifications to the approved Light Rail Transit alignment.</p> <ol style="list-style-type: none"><li data-bbox="745 581 1509 678">1. During station construction activity, all safety lighting, construction equipment, and other visually obstructive sources shall be shielded from view.<li data-bbox="745 889 1509 1232">2. Stations shall be designed to be attractive and nonintrusive on surrounding areas. Station design and building materials used in their construction will emphasize low maintenance, and graffiti resistance. In the case where station platforms and parking facilities would be constructed adjacent to architecturally interesting buildings, design standards should be established for rail-related facilities in order to be sensitive to the style and cultural representation of both the building and the surrounding community.	The aerial structures proposed for the grade separation at Marmion/Figueroa and the West Bank Option are considered an unavoidable visual impact. Partial mitigation of the aerial structures is possible through attractive and community-sensitive architectural design treatments.

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
<u>AESTHETICS</u> (continued)	<ol style="list-style-type: none"> 3. Community workshops shall be performed to provide input during design of individual stations. 4. Landscaping shall be used to shield or enhance stations, the yards, and the right-of-way. Low maintenance plants and ground cover that are compatible with the Southern California climate and the architecture of the surrounding area will be selected. 5. Additional shielding of track and station structures shall be accomplished by the construction of sound walls and fencing at points along the rail way. 6. An arts program shall commit 0.5 percent of the project's construction budget toward art projects related to Light Rail Transit facilities. 	

4.9 CULTURAL RESOURCES

Cornfield Yard

Construction and operation of the maintenance yard would result in adverse effects on historic resources. As defined by CEQA, an adverse effect on historic resources is considered a significant impact.

1. Prior to commencement of construction, the project sponsor will be required to obtain approval from the City of Los Angeles Cultural Heritage Commission to alter the Cornfield Yard site, Cultural Landmark #82. Preservation of any at-grade resources is the preferable action, and should be undertaken to the maximum extent feasible. If in the course of construction, any suspected historical resources are discovered, activity will cease and a mitigation plan will be designed and implemented before any construction is resumed.

Project development and operational impacts (i.e., demolition, excavation, construction) on historic structures and/or resources can be mitigated to a level of insignificance with implementation of Mitigation Measures 1 through 6.

TABLE 2-1 (continued)

Environmental Impact	Mitigation Measures	Unavoidable Adverse Impacts
Cornfield Yard (continued)	2. Should historic and/or archaeological resources be unearthed during excavation, significant earthmoving and/or grading activities will immediately cease. A qualified archaeologist will be called in to assess the significance of the find, and recommend appropriate protection measures. In the event human remains of possible Native American origin are encountered during the course of construction, the Los Angeles County coroner's office and the Native American Heritage Commission will be contacted for preservation and protection of the remains.	
Southwest Museum Station		
No significant impacts are expected at the Southwest Museum site.	3. The project sponsor will consult with the Los Angeles Cultural Heritage Commission to ensure that the configuration, design, materials, colors, and signage of the Southwest Museum Station will be consistent with the architecture of the existing structures in the area.	
Colorado Boulevard Subgrade		
Construction of the Colorado Boulevard Subgrade could result in adverse effects on historic resources. As defined by CEQA, an adverse effect on historic resources is considered a significant impact.	4. Engineering studies have indicated that the construction of the Colorado Boulevard Subgrade is feasible. The project shall adhere to the criteria outlined in the engineering studies. This shall add to the protection of adjacent structures in the Old Pasadena National Register Historic District to withstand the level of vibration anticipated from construction and operation of the proposed light rail system.	

SECTION 3
LIST OF AGENCIES AND INDIVIDUALS
COMMENTING ON DRAFT SEIR

The following Table (3-1) identifies those individuals that have commented on the Draft SEIR.

TABLE 3-1

LIST OF AGENCIES AND INDIVIDUALS

	<u>Comment Date</u>
<u>Elected Officials</u>	
Councilmember Mike Hernandez - First Council District	November 10, 1992
<u>State Agencies</u>	
Department of Transportation - District 7 (Robert Goodell)	November 5, 1992
<u>Local Agencies</u>	
Southern California Rapid Transit District (Albert H. Perdon, P.E.)	October 26, 1992
City of Los Angeles, Planning Department (G. David Lessley, Principal City Planner)	October 16, 1992
Los Angeles Community Redevelopment Agency (Rich Macies)	November 18, 1992
City of Pasadena, Public Works and Transportation (Cynthia J. Kurtz, Director)	November 11, 1992
Los Angeles Unified School District, Real Estate Section (Elizabeth Harris, Realty Agent)	November 11, 1992
Los Angeles Unified School District, Business Service Division (Elizabeth Harris, California Environmental Quality Act Officer)	November 13, 1992
Los Angeles Unified School District, Environmental Health and Safety Branch (Susie Wong)	November 4, 1992

Organizations

Chinatown Community Advisory Committee (Munson A. Kwok)	November 12, 1992 November 15, 1992
Pasadena Heritage (Claire W. Bogaard)	November 10, 1992
Lincoln Heights Preservation Association (E. Michael Diaz)	November 10, 1992
Mount Washington Association (Louis Mraz, Mimi Smith, Pat Samson, Luicille Lemmon, Rosemary Brani, Scott Burleigh, Clare Marter Kenyon, Lynette Kampe, Laura Knowles, Jesse Simon)	October 21, 1992
Highland Park Heritage Trust (Bob Ebinger)	October 10, 1992
Madison Heights Neighborhood Association (Betsy Blue)	November 11, 1990
Mt. Washington Preschool & Child Care Center (Carol Siu)	November 10, 1992

Citizens

Brian D. Hyman	November 2, 1992
Gerald D. Lehmer, President Gerald Lehmer Associates, Civil and Structural Engineers	
Stefan Reed (private citizen)	October 20, 1992 October 28, 1992

Citizen Input Cards

Lynnette Kampe	October 22, 1992
Luis Hernandez	November 1, 1992
Mario Hernandez	November 1, 1992
Olga P. Asredondo (M.A.S.H. Loreto)	November 7, 1992
Mr. and Mrs. Joe Rivera	November 8, 1992
Antonio Longoria (Loreto Mash)	October 29, 1992
Esther and Rene Rascon (Loreto Mash)	November 4, 1992
Gabriel Lopez	November 4, 1992
Juan D. Martiez, Jr.	November 7, 1992
Rosa Tirado (MASH)	November 6, 1992
Gil Gildardo (Loreto MASH)	October 28, 1992
Adolph A. Calvillo	October 30, 1992
Anita Caluillo	October 31, 1992
M. Loera	October 25, 1992
Reuben Campos	October 26, 1992
Maria Evederor	November 7, 1992
Ana Berth Covarrubias	November 5, 1992
Raul Montes	November 6, 1992

Public Hearing Comments

Assemblyman Polanco

Bob Jamieson, Mt. Washington Association

Don Toy (private citizen/Chinatown Community Advisory Committee)

Sharon Clark (Transportation Advisory Commission, Chamber of Commerce Transportation Committee, Tri-cities Transportation Coalition)

Laura Knowles (Secretary, Mount Washington Association)

Charles Fisher (Chairman, Highland Park Heritage Trust and Highland Park Neighborhood Association)

Arlene Willie

E. Shipherd

Ann Walnum

William Hunter

John Bag Lady



SECTION 4

COMMENTS AND PREPARERS' RESPONSES TO COMMENTS ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

This section contains a summation of comments received on the draft SEIR circulated during September, October, and November 1992. The lead agency and the preparers of the draft SEIR have responded to each individual comment.

City of Los Angeles Planning Department, G. David Lessley, Principal City Planner

Comment 1: The LACTC should be aware that the segment of the Pasadena LRT that transverses the community of Highland Park would bisect a proposed Historic Preservation Overlay Zone (HPOZ) that has been initiated for the Highland Park area. This HPOZ is to be considered by the City Planning Commission at its meeting of November 19, 1992. The Commission has indicated an interest in what impacts that the light rail line might have on the HPOZ. Staff has concerns that the approximately 40 structures located along Marmion Way that have been categorized as Level 5 buildings by the architectural/historical consultant survey would be adversely impacted by the light rail line's proximity to these structures. The SEIR needs to closely examine the potential adverse impacts (including vibration) of this light rail system on the designated historic buildings within the proposed Highland Park HPOZ area.

Response 1: In the original EIR on the light rail alignment, certified in 1990, Section 4.14 discusses the historic and cultural resources along the alignment and examines the impacts to these resources. This SEIR focuses on the three alternative station locations (Southwest Museum, Allen Avenue, and Fillmore Street), three maintenance yard options (Taylor Yard, Cornfield Yard, and West Bank), and proposed grade separations in the vicinity Colorado Boulevard and at the intersection of Marmion Way and Figueroa Street. Section 4.9, Cultural Resources, of the SEIR, notes that only the Cornfield Yard, Southwest Museum Station, and Colorado Boulevard Subgrade sites have the potential to affect cultural resources. The cultural resources impacts associated with these proposed alternative sites are discussed in the SEIR. Implementation of the light rail transit project is not anticipated to impact historical structures located along Marmion Way. Nevertheless, mitigation measures stated in both the certified EIR and the SEIR will fully mitigate any potential impacts due to vibration from construction and/or operation of the LRT to historical/architectural structures.

Councilmember Mike Hernandez - First Council District November 10, 1992

Comment 1: The following mitigation measures are offered on behalf of the First Council District for traffic, toxic waste, community cohesion, air quality, and noise impacts. These mitigation measures will either: (1) avoid impacts altogether; (2) minimize the impact; (3) rectify the impact; (4) reduce or eliminate the impact over time; or (5) compensate for the impact. Finally each of the mitigation measure is feasible, in that they are capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

Response 1: Comment noted.

Comment 2: Any grade separations adopted by the Commission should be constructed below-grade to preserve the residential community atmosphere of communities, in particular Highland Park. Aerial structures should be eliminated from consideration due to their visual and noise impacts.

Response 2: A below grade separation would reduce visual and noise impacts; however, it would increase safety concerns during construction and significantly increase the cost of construction. Implementation of the Highland Park/Mount Washington aerial structure would result in unavoidable adverse visual impacts, but it would not create significant noise impacts and would cost up to \$17 million over an at-grade option. Although a below-grade separation would reduce visual impacts to an insignificant level and somewhat reduce noise impacts, it would cost approximately \$38 million over an at grade option.

Comment 3: Light rail vehicles will be constructed, tested, and modified as needed so as to meet reasonable noise standards of no more than 65 A-weighted decibels (DBA) at a distance of 50 feet from the track at full speed.

Response 3: Maximum sound levels for an at-grade LRT traveling at 35 mph is 74 dBA at 50 feet from the train. Full speed of an LRT indicates an average speed of 35 to 45 mph in residential areas. At 50 mph, maximum sound levels increase to 74 dBA. Therefore, LRT operations will comply with local noise ordinances for operation in residential areas along the alignment.

The 1990 Draft EIR identifies noise impacts that would be generated by operation of the LRT along portions of the alignment. These locations include: (1) midway between Avenue 41 and Avenue 42 to Stanley Avenue; (2) both sides of the right-of-way from Stanley Avenue to midway between Avenue 60 and Avenue 61; and (3) the south side of the right-of-way from the intersection of Marmion Way to Arroyo Drive and to Arroyo Verde Road. Sound walls will be provided to mitigate noise impacts at these locations. The recommended height of the soundwalls is based on the assumption that the LRT travels at between 35 and 45 mph. However, in actuality, the LRT is more likely to be traveling at lower speeds due to the numerous street crossings along the alignment. Refer to 1990 Draft EIR, Section 4.6, page 4-106, for a full description of mitigation measures to be provided.

To further minimize potential noise impacts, LACTC is in the process of replacing the horns from the existing 100 dBA horns to a 86 dBA. As much of the noise from LRT is caused from wheel-to-rail friction, LACTC will be starting a rail maintenance program by which they periodically grind the imperfections from the tops of rails. This will provide for reduced noise during vehicle movement and braking. LACTC has initiated this program based on Blue Line operational experience. LACTC will be renting the equipment for preliminary usage and eventually buy one for long-term maintenance of all rail.

Comment 4: The Commission will obtain a 65 dBA noise level vehicle through, but not limited to, such techniques as noise reduction underbody skirts, noise reduction insulated boxes around the motors, brakes, and/or other high noise components.

Response 4: See Response to Comment 3.

Comment 5: The Commission will test the entire vehicle fleet for maintenance of a 65 dBA maximum noise level on a quarterly basis and adjust or repair the vehicles as needed, including grinding the wheels or track as needed.

Response 5: See Response to Comment 3

Comment 6: The commission commits to automatic track lubricators or equivalent measures to eliminate wheel squeal at any minimum radius curves.

Response 6: See Response to Comment 3.

Comment 7: The Commission will provide and install double pane glass in the doors and windows of all residential structures where any part of said structure is within 100 feet of the right-of-way without cost.

Response 7: See Response to Comment 3. LACTC would be willing to work with the affected communities identified for soundwalls if there is a preference for double pane windows instead of soundwalls.

Comment 8: The Commission will pay all costs and fully provide preferential parking permits for station residents in all station areas.

Response 8: The Commission does not typically provide reimbursement for city parking permit programs. The LACTC depends on city support and cooperation in deciding whether the city should initiate such a program. Some communities prefer to forgo this program as unduly restrictive.

Comment 9: The Commission will provide each light rail vehicle with wheel safety guards to prevent children from placing toes beneath the wheels, such as are present on the San Diego Light Rail vehicles.

Response 9: The San Diego Trolley requires wheel safety guards on its vehicles because passengers board the vehicles from street level. In comparison, stations on the Pasadena line will be similar to those on the existing Blue Line, in which passengers board the vehicles from platforms approximately 3 feet above street level, minimizing the possibility of passenger's feet being caught under the vehicles. Furthermore, the Pasadena line will operate on a dedicated right-of-way fenced off from the adjacent communities, and with a full compliment of crossing equipment at at-grade street crossings. The LACTC also has an aggressive school safety program.

Comment 10: The Commission will provide each light rail vehicle with folding passenger devices which lower into place whenever a vehicle is at the front of a train and prevent pedestrians from falling under trains. These devices shall be updated versions of the safety devices provided on all street cars operating in the City of Los Angeles until 1963.

Response 10: Safety devices known as "Cow Catchers" were widely used on street cars operating in Los Angeles through 1963 because many of the early street car lines operated on local streets along

side automobile traffic, and pedestrians boarded the vehicles from street level. The opportunities for automobile and pedestrian related incidents on the Pasadena Line will be significantly less than on earlier rail transit systems because the rail line will operate on a fully dedicated right-of-way with controlled pedestrian access at station locations only.

The rail vehicles on the Pasadena line will be fitted with safety bars as required by PUC General Order 143-A, Section 306: "Every RV shall be equipped with a bar made of wood fiberglass, or metal installed full width in front of the leading wheels on the LRV vehicle or a fender, or a lifeguard to provide protection against foreign objects being caught under the car body when the LRV or the train is in motion."

Comment 11: Wherever the right-of-way is sufficiently wide to allow space surplus to existing and projected future tracks and stations, the Commission shall provide one tree on each side of the track at intervals not to exceed 60 feet. The trees shall be not less than 26-inch box trees. (Also, trees shall be maintained not less than 1 year at the commission's expense, with any trees that die being replaced at Commission expense.)

Response 11: Very few areas exist where the right-of-way is wider than what is required for light rail operation. Where such places exist, the LACTC shall develop a landscaping plan. Trees and vegetation would be placed so that vision of train operators, pedestrians, and automobile operators is not impaired, and does not interfere with other operational requirements.

Comment 12: The Commission shall enroll the following high schools in the TOPS program no later than the first day of construction on the Pasadena Line - Franklin, Lincoln, Cathedral, Sacred Heart of Jesus. Not fewer than 250 total students shall be enrolled in the TOPS program during any of the first 5 years following the first day of construction or as long as construction lasts, whichever is longer.

Response 12: Currently the Franklin School is enrolled in the TOPS program. LACTC will actively work with other school administrators to enroll the remaining public schools in the project area in the TOPS program. However, because the TOPS program is voluntary, the Commission is unable to control the number of students in the program and cannot guarantee quotas. Nonetheless, LACTC will actively recruit students. Once a project is constructed and fully operational, the TOPS program cannot be maintained.

Comment 13: Following the completion of construction, the Commission shall continue to enroll at least 50 students in TOPS from the same high schools for an additional period of at least 10 years.

Response 13: See Response to Comment 12.

Comment 14: The Commission shall fund \$250,000 worth of pedestrian and community cohesion enhancing features at each station on the Pasadena line. Acceptable elements shall include park benches, ornamental walks, artwork, and small scale joint development. Not more than 10 percent may be spent on design and each station shall have at least three bilingual public meetings to approve the design features. All aspects of this work at a station shall be complete by no later than 90 days following the first day of revenue operation of that station.

Response 14: LACTC policy established that 0.5 percent of the construction budget for each station be set aside for the development of site specific public art projects. An advisory committee consisting of local citizens will be created in order to assist in the development of each art project. During the project's final design phase landscaping, and pedestrian enhancements such as walkways and benches, will be considered along the right-of-way wherever feasible and cost effective.

Comment 15: The Commission shall fund at least 2,000 square feet of space for community based services, including commercial activity. Upon request from the Council District Office, joint development efforts will be implemented to ensure community development and safety.

Response 15: Joint development is not related to the environmental impacts analyzed in the SEIR, but may be considered as an additional policy action.

Comment 16: The Commission shall hold at least three public meetings in the communities impacted by the light rail alignment on how to enter into small scale joint development agreements with the Commission.

Response 16: As part of the station area master plan assessment process undertaken by the Joint Development staff, community workshops will be held to provide neighborhood input into the individual station areas. Where joint development opportunities are identified, efforts will be made to seek community participation in all scales of development projects.

Comment 17: The Commission shall only locate the Pasadena line maintenance yard at the west bank behind the RTD CMF, or at the former state prison site near Olympic (connected to the Pasadena line via a nonrevenue track). Any maintenance yard site shall provide for a future joint development deck above the tracks by spacing tracks far enough apart to allow for future support columns.

Response 17: The prison site was not included as part of the "project" analyzed in the SEIR. An evaluation for this site concluded that while not functional for a Pasadena line yard site, the prison site can be considered as a Los Angeles Car Assembly plant. Support of this site and the West Bank site is noted. A future deck for joint development can be considered, though the priority is to minimize land requirements by efficient site planning.

Comment 18: Any yard site at the former state prison site shall include provision for a rail car construction factory.

Response 18: See Response to Comment 17.

Comment 19: The Commission shall not sell any maintenance yard part of its Taylor Yard property but shall cause that part previously considered for a light rail yard to be used as a community serving facility. Upon initiation of construction of any portion of the project, the Commission shall apply for the appropriate city land use authorization to restrict that particular portion of Taylor Yard known as Parcel C to be used as a mixed use community serving facility.

The application shall only be made upon completion of the community workshop process which will determine scenarios that will enhance ridership and community economic development uses at that site. The Commission shall pay the cost for city time necessary for processing the documents related to the site. This will partially offset the community impacts of both the Pasadena and commuter rail lines.

Response 19: Development of the unused portions of Taylor Yard would only appear to relate to mitigation of a LRT maintenance facility at Taylor Yard. While not related to the environmental impacts analyzed in the SEIR, this request may be considered as an additional policy action. If the maintenance yard is developed elsewhere, it is LACTC's discretion to determine how to dispense of the property. Additionally, the cost of processing documents is handled through a master cooperative agreement between LACTC and cities.

Comment 20: The Commission will modify its proposed project to commit as part of the Pasadena line no less than three light rail stations in Taylor Yard.

Response 20: The SEIR for the Pasadena-Los Angeles project does not provide the environmental clearance for selecting stations for other rail lines. Station selection for sites in Taylor Yard must be made in connection to the Glendale-Burbank line.

Comment 21: The Commission will initiate and operate a rail construction apprenticeship program at the local educational institutions within the communities impacted by the project and cause the construction contractors to hire not less than 100 graduates during project construction.

Response 21: LACTC will implement an apprenticeship program (TOPS). However, LACTC cannot guarantee a graduate employee threshold as the TOPS program operates on a voluntary enrollment basis.

Comment 22: The Commission will not allow construction noise impacts to exceed 10 dBA above ambient levels or 85 dBA under any circumstance. Such noise shields, vehicle mufflers, and use of electrical rather than diesel equipment as is needed will be used. Use of temporary electrical service will be established instead of diesel electrical generators.

Response 22: Noise levels are incorporated into the specifications of all construction contracts and include provisions to comply with the City of Los Angeles Noise Ordinance. Temporary electrical service is not always readily available and could impose substantial cost impacts on construction activities.

Comment 23: Construction shall not occur between the hours of 10:00 p.m. and 6:30 a.m. daily and Saturday construction shall be allowed between 10:00 a.m. and 4:00 p.m. and not on Sunday.

Response 23: Construction activities occurring during the evening and weekend periods mentioned would only be for emergencies and critical work periods requiring approval from the RCC construction management team.

Comment 24: Art programs shall respect the neighborhood character and fully incorporate historic themes and opportunities for local artists.

Response 24: It is LACTC's intent to hire artists from the communities to work with designers during the upcoming final design for the Pasadena line.

Southern California Rapid Transit District, Albert H. Perdon, P.E.

Comment 1: Because of the inherent difficulties of providing overnight car storage and bus interface facilities near the Sierra Madre Villa Station site, the District recommends that it would be in the best interest of all that the line be initially extended eastward to a point closer to Santa Anita Race Track as a more logical passenger destination point.

The transit and parking interface possibilities are limited at the Sierra Madre Villa site, especially since this is only a temporary terminal. The idea of extending to an area where more parking provisions would be available should receive further consideration. Traffic mitigation problems at Sierra Madre Villa also appear to be somewhat formidable.

Response 1: The extension of the light rail to the vicinity of the Santa Anita Race Track and beyond to Azusa is considered a fundable candidate corridor in LACTC's 30-year Integrated Transportation Plan. Please note that the EIR for the Pasadena-Los Angeles Light Rail Transit Project was certified in the Spring of 1990. Subsequently, the project was also approved. This SEIR focuses only on those environmental issues specific to the areas of modification to the previously certified EIR. The Sierra Madre site was chosen because of the potential access provided by extending new frontage roads off the 210 Freeway. Bus interfaces were integrated into the conceptual site plans. Overnight storage was achieved by extending tracks eastward along the 210 Freeway.

Comment 2: Present planning calls for patrons of the Glendale-Burbank Line to ride to Chinatown in order to transfer to a Pasadena train. Transfer between the two lines should be facilitated by placing adjacent station platforms at or near Avenue 26. It would require that the Glendale Line traverse Avenue 26 for several blocks on the surface. This possibility should be investigated prior to the Pasadena line entering final design.

Response 2: This alternative was analyzed in the Burbank-Glendale-Los Angeles Rail Transit Draft EIR. The alternative was found to be infeasible as it would result in additional land use displacement, traffic and circulation impacts, pedestrian safety concerns, and noise impacts to nearby residential communities. This alternative resulted in engineering difficulties because of freeway overpasses and bridges.

Comment 3: Addition of a station at Avenue 61 and Figueroa Street.

Response 3: Because it would be located on a curve, siting a station at Avenue 61 would be geometrically awkward and would necessitate land takings. Additionally, a station at Avenue 61 would be undesirably close to the approved station at Avenue 57.

Department of Transportation (District 7) - Robert Goodell, November 5, 1992

Comment 1: The District is satisfied with the SEIR's overall traffic analysis as submitted and find no significant impact to the State Transportation System.

Response 1: Comment noted.

Comment 2: Any transport of heavy construction equipment which require the use of oversize transport vehicles on State Highways will require a Caltrans transportation permit. It is recommended that truck trips be limited to off-peak commute periods.

Response 2: Comment noted.

Los Angeles Community Redevelopment Agency - Rich Macies

Comment 1: In a response to the Notice of Preparation, Agency staff requested that a fourth option be added which would provide that all maintenance be performed at the existing Blue Line Maintenance Facility thus eliminating the need for a Cornfield or Taylor Yard facility. However, this option has not been considered in the SEIR, why?

Response 1: A Blue Line non-revenue connector was considered prior to the selection of alternatives to be included in the SEIR. The Commission ultimately chose not to include this option in the SEIR for the following reasons:

- Travel to the Blue Line Maintenance Yard would require an extremely long dead head distance on non-revenue service.
- This alternative would require construction of approximately 3.5 miles of track lead from Union Station to the Blue Line that may have to be electrified to provide adequate operations.
- This alternative would be operationally difficult as it would provide only limited time for storage yard access and vehicle transfer for maintenance procedures.
- Use of the Blue Line Yard is only practical for performing heavy maintenance, requiring all daily maintenance and vehicle storage to occur closer to the Pasadena line. Thus, this option would still require development of a local vehicle storage and maintenance yard.
- Insufficient width is available along the west bank of the Los Angeles River because of the competing Metrolink, Amtrak, and freight activities. This option would also create interface problems in and around Union Station with Amtrak and Metrolink.

Comment 2: Any proposals for the development of the Cornfield site are likely to impact the Chinatown Redevelopment Project area. The Chinatown Community Advisory Committee (CCAC) which advises our Agency on redevelopment activities has expressed the need to consider the Cornfield site for the purpose of meeting the Redevelopment Plans goals of affordable housing, schools, parks, open space, etc. The development of a maintenance yard at this site could be in conflict with the Redevelopment Plan goals - this conflict should be noted in the SEIR.

Response 2: Development of the LRT Storage and Maintenance Facility at the Cornfield Yard will not preclude other development on the remainder of the site. As discussed in the Section 4.1 (Land Use) of the Draft SEIR, the placement of the proposed light rail facilities at Cornfield Yard would be consistent with the provisions of the Central City North Community Plan of the City of Los Angeles General Plan and the requirements of the City of Los Angeles Planning and Zoning Code. The LACTC understands the need to coordinate with community and planning agencies to ensure that community goals can be met.

Comment 3: Both Cornfield and Taylor Yard sites are subject to ongoing planning studies which may result in a change of land use designation in the area; selection of either sites could prohibit or otherwise impede proposed future plans as incompatible uses would result. This conflict should be noted in the SEIR.

Response 3: The ongoing planning processes have been addressed in the Draft SEIR and will be used in any refinement of the Pasadena-Los Angeles Light Rail Transit Project.

Section 4.1, Land Use, of the Draft SEIR, discusses future plans for Taylor Yard. Currently the Southern Pacific Transportation Company is offering for sale a large portion of Taylor Yard to the east (parcels D, E, and F). The Los Angeles Police Department is considering development of a new police academy and a driver training facility on parcels D, E, and F. LACTC and the SCRRA have purchased 70 of the 243 acres at the south end of Taylor Yard for transit related use and development. The crescent-shaped parcel on the southern end of Taylor Yard is being constructed as a metrolink commuter rail maintenance facility for the SCRRA. The remaining LACTC site is presently vacant. Various proposals to build on the vacant "for sale" portions of Taylor Yard have been developed. Through its efforts to subdivide and sell lots, SPTCo has entertained three development concepts. The largest of the concepts would be a grocery warehouse and distribution center located on 30 acres. A Costco and Food 4 Less comprise the other two concepts. The remainder of Taylor Yard would be developed with "power center" uses.

In relation to the development proposals noted above, the community has voiced a concern for a development that would include amenities for area residents, new housing opportunities, jobs for locals, and access to the Los Angeles River. These interests have initiated an open community planning process. With the cooperation of the local council district and LACTC, the Los Angeles Chapter of the American Institute of Architects (AIA/LA) is sponsoring the Taylor Yard Area

Planning and Urban Design Workshop. This process is using community meeting and workshops to identify the primary community concerns and develop realistic alternatives for Taylor Yard. LACTC will be developing the resulting alternatives through an additional transit related development feasibility study for which they have already retained consultants.

The Northeast Area Plan for the City of Los Angeles General Plan designates the Taylor Yard as "Heavy Industrial". This designation accommodates automobile parking (Zone "P") and heavy industry (Zone "M3"), including railroad repair shops. The Central City North Community Plan of the City of Los Angeles General Plan designates Cornfield Yard as "Light Industrial". This designation accommodates automobile parking (Zone "P"), airports/aircraft landing fields, junk yards, electric railroad yards (Zone "M2") and industrial uses (Zone "MR2").

The light rail service and maintenance facilities proposed by LACTC are consistent with the provisions of the Northeast Area Plan and the Central City North Community Plan of the City of Los Angeles General Plan and the requirements of the City of Los Angeles Planning Code. Additionally, because the Cornfield site and Taylor Yard are currently used for diesel locomotive operations, implementation of the proposed light rail facilities would not result in any increase in land use compatibility impacts above existing conditions.

Comment 4: Joint development is not related to the environmental impacts identified in the SEIR but may be considered as an additional planning action. The Initial Study, with respect to the Cornfield Site, mentions that LACTC would cooperate with the City of Los Angeles to implement a joint development project on the site in order to facilitate community acceptance; however, it is not clear how community acceptance would be gauged and incorporated not is it clear whether or not the maintenance facility would be implemented even if no joint project emerges. In addition, this requirement was not carried forward to the Project Description in the SEIR. Please clarify what the current Project Description is; whether or not it includes this requirement; and specifically what is intended by this requirement.

Response 4: The LACTC is currently cooperating with local City Council Districts and the Chinatown community, as noted in the Initial Study to study joint development opportunities at the proposed Cornfield Yard Storage and Maintenance Facility. As this collaborative effort will be ongoing into mid-1993, the joint development alternatives cannot be incorporated into the Project Description. For the purposes of the environmental impact analysis, the project description can be

considered a "worst case" scenario that considers the maximum extent of potential adverse environmental impacts of vehicle maintenance operations.

Comment 5: The mitigation measures for Land Use impacts include special permit programs in residential areas and enforcement of time limits in commercial areas would be needed to reduce the impact of parking overflow. Such parking programs are likely to have added costs to residents and government services. Please address how this additional impact will be mitigated and who would bear any costs.

Response 5: The Commission does not typically provide reimbursements for City parking permit programs. The LACTC depends on City participation and funding as part of its support and cooperation in the rail program. Some communities prefer to forgo this program as unduly restrictive.

Comment 6: Operation of the Los Angeles-Long Beach Blue Line LRT indicates that the sounding of the train horn as it approaches either station platforms or grade crossings can have a negative impact on both residential and commercial areas. However, under Noise and Vibration impacts, noises from Light Rail horns has not been discussed. Please analyze this impact and propose appropriate mitigation measures.

Response 6: LACTC is in the process of replacing the existing 100 dBA horns with 86 dBA horns. This will minimize the potential for noise impacts. Additionally, as much of the noise from LRT is caused from wheel to rail friction, LACTC will be starting a rail maintenance program by which they periodically grind the imperfections from the tops of the rails. This will provide for reduced noise during vehicle movement and braking. LACTC has initiated this program based on Blue Line operational experience.

Comment 7: Residential areas are specifically susceptible to glare impacts from maintenance yards. The Cornfield Site, where residential areas are at a higher elevation, but visible to the site, residential areas are especially susceptible to reflective glare. Under Light and Glare impacts, mitigation #2 should be specific to indicate that both sources and reflected surfaces are to be shielded - the latter are especially important where topography is not flat.

Response 7: Comment noted. Revisions are reflected in Section 6, Errata Section of this Final SEIR.

Comment 8: Under Operational Characteristics, page 3-11, the description should note under what conditions the vehicle horn is to be sounded. Clarification of this description is important to analyze the potential level of impact.

Response 8: The Public Utilities Commission (PUC) requires that the vehicle horn be sounded upon approach of an at-grade crossing and as the vehicle approaches the stations.

Comment 9: As stated on page 4-61, potential operational noise sources considered are train passersby along the route and vehicular traffic near passenger stations; this may be an erroneous assumption as Light Rail noise also results from sounding of train horn as the train approaches the stations and grade crossings.

Response 9: Please refer to Response to Comment 6.

Comment 10: For the Cornfield Yard site (page 4-69), onsite receptors of noise to the south need to be analyzed.

Response 10: Please see Section 4.5, Noise and Vibration, of the SEIR. As discussed in this section, no significant unavoidable noise impacts are expected at the Cornfield site.

Comment 11: Regarding mitigation of historic resources for the Cornfield site (page 4-100), a more detailed description of the historic landmark #82 and more specific mitigation need to be discussed. Also, there is an important omission - impact on the bridge located at a distance of approximately 250 feet north of Sotello Avenue which forms a part of the cultural landmark is not described; it is not clear whether this bridge would be preserved as an existing at-grade resource or whether this bridge is in the proposed project area. Please clarify.

Response 11: Please refer to the setting portion of the Cultural Resources section on pages 4-91 and 4-92. The description of historic landmark #82 indicates that the resources identified are not in the portion of the yard planned for vehicle maintenance and storage. As such, the resources will not be impacted.

City of Pasadena, Public Works and Transportation - Cynthia J. Kurtz, Director

Comment 1: On page 2-8, item #4 should include Green Street and Union Street in addition to Colorado Boulevard to clarify that the grade separation includes structures on these streets. Additionally, under the "Unavoidable Adverse Impacts" with regard to this item, there needs to be clarification developed to indicate that the below-grade scenario will not result in any adverse impacts.

Response 1: The grade separation does not include structures on either Green Street or Union Street. Please refer to mitigation measure #4 in the Cultural Resource Section of the Final EIR, Table 2-1.

Comment 2: On page 2-8, item #6 needs to be revised to indicate that Fillmore Street will be closed and, therefore no widening will be required.

Response 2: Comment noted. As indicated in the comment, Fillmore Street will be closed and, therefore, no widening will be required.

Comment 3: On pages 3-7 the last sentence needs to be clarified as it sounds like Pasadena will only have four stations in the City since there were originally nine proposed and it indicates a deletion of five stations. Actually Pasadena will have six stations constructed in the City, those being at Fillmore, Del Mar, Memorial Park, Lake Avenue, Allen Avenue, and Sierra Madre Villa. This clarification needs to be made so that the reader immediately realizes this fact.

Response 3: The commentor is correct. The City of Pasadena will have six stations if the station modifications identified in the SEIR are adopted. These six stations include locations at Fillmore Street, Del Mar Boulevard, Memorial Park, Lake Avenue, Allen Avenue, and Sierra Madre Villa.

Comment 4: On page 3-8, the Fillmore Station explanation needs to be corrected to indicate that a center platform is being provided and not a side platform as stated.

Response 4: Comment noted. See Section 6, Errata and Changes to the SEIR, of this document.

Comment 5: The exhibit referenced for the Allen Avenue Station on page 3-8 and description need to be corrected to indicate that the station will be located just west of Allen and not east of Allen Avenue as shown in the exhibit.

Response 5: See Section 6, Errata and Changes to the SEIR, of this document.

Comment 6: The discussion of "Grade Separations" on page 3-8, needs to be clarified to include intersections of Green Street, Colorado Boulevard, and Union Street, all as part of the grade separation being proposed in this area of the report. Without this clarification, the reader may get the impression that the grade separations only involve two specific streets.

Response 6: See Section 6, Errata and Changes to the SEIR of this document.

Comment 7: Exhibit 3.3-8 needs to be revised to indicate that the Allen Avenue Station is to be located just west of Allen Avenue and not east of Allen Avenue as shown on the exhibit. In addition, the proposed widening indicated needs to be revised as it has been determined no widening will be required on Allen Avenue.

Response 7: See Section 6, Errata and Changes to the SEIR, of this document.

Comment 8: Exhibit 3.3.7 for the Fillmore Station needs to be revised to show that the station is located just north of Fillmore Street and not within Fillmore Street as shown on the Exhibit. In fact only the ramp area to the station will be in Fillmore Street, as shown by the latest drawings provided to the City by the RCC.

Response 8: Comment noted. See Section 6, Errata and Changes to the SEIR, of this document.

Comment 9: Section 3.3.4, Grade Separations, on page 3-9 should be expanded under the Colorado Boulevard grade separation item to include Green Street and Union Street in the first sentence to clarify that the grade separation involves these three streets.

Response 9 See Section 6, Errata and Changes to the SEIR, of this document.

Comment 10: On page 4-6, under Stations and Grade Separations, the Fillmore Station needs the clarification that there may be limited parking at this location, since at this time the City has expressed concerns over a parking lot at this location.

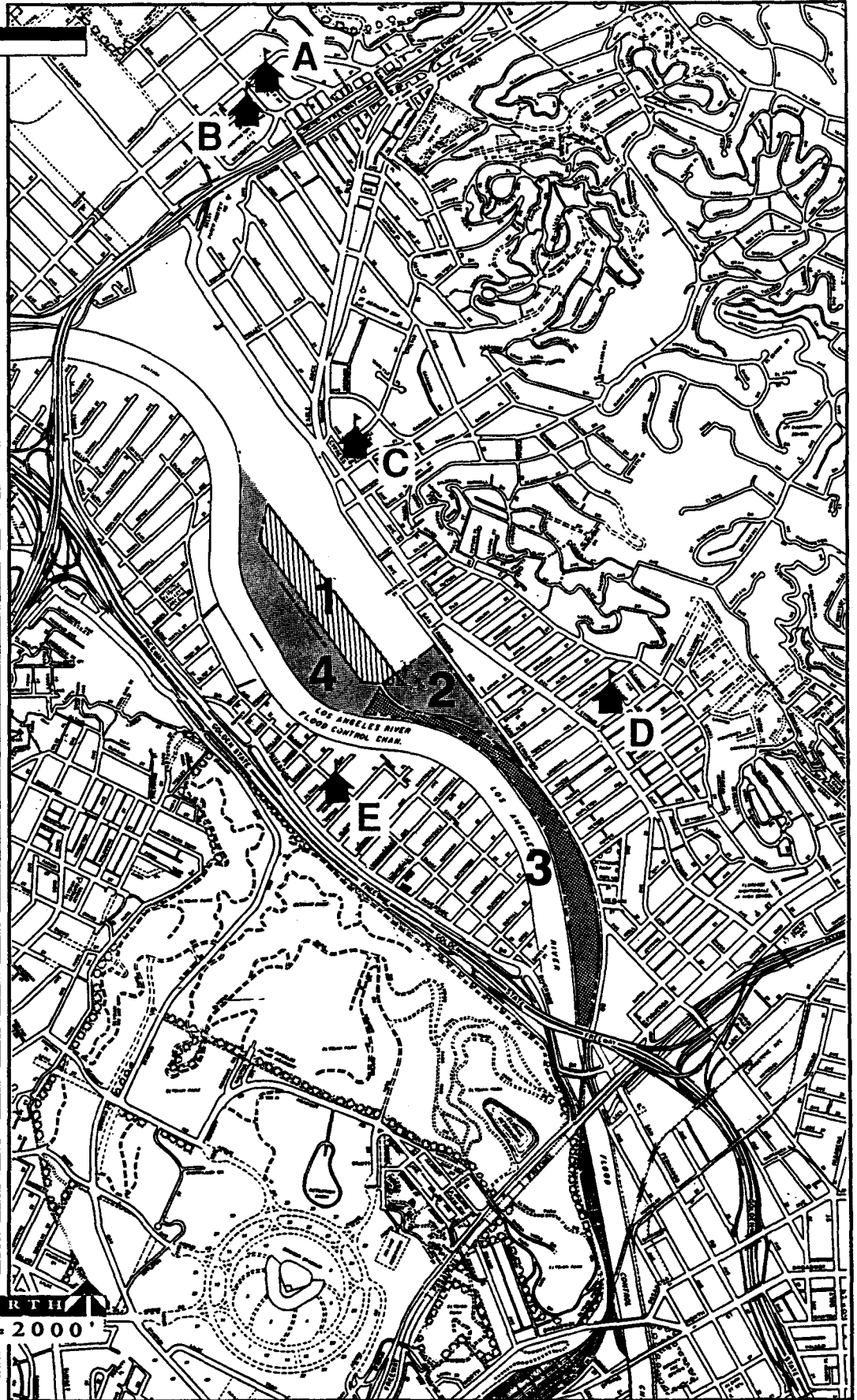
Response 10: On page 4-6, last paragraph, second sentence, indicates that there may be limited parking at this station location.

Comment 11: Page 4-12, under the description for the Fillmore Station, the word "vacating" needs to be removed in the first and last lines of the paragraph as the City will not be vacating the street, but merely "closing" it. Therefore, the work "closing" needs to be inserted in lieu of the word "vacating." in addition, on page 4-13, under Colorado Boulevard grade separation, the words "vacating" in the first line and the word "vacation" in the third line need to be replaced by the word "closing."

Response 11: See Section 6, Errata and Changes to the SEIR, of this document.

LEGEND

- 1** LINEAR YARD OPTION
- 2** ORIGINAL YARD OPTION
- 3** METROLINK YARDS
- 4** ACTIVE SOUTHERN PACIFIC YARD
- A** FLETCHER DRIVE SCHOOL
- B** WASHINGTON IRVING JR. HIGH SCHOOL
- C** GLASSELL PARK SCHOOL
- D** ARAGON AVENUE SCHOOL
- E** DORRIS PLACE SCHOOL



LOCATION OF AREA SCHOOLS

Pasadena Light Rail Final Supplemental EIR

Michael Brandman Associates

exhibit

3

Los Angeles Unified School District, Real Estate Section - Elizabeth Harris, Realty Agent, November 11, 1992

Comment 1: Though the SEIR did not provide adequate analyses of noise and air emissions impacts on area schools, it is understood that the LACTC will provide these analyses to the District well before December 16, 1992. This will allow the Los Angeles Unified School District (LAUSD) to review the analyses before the LACTC certification of the Burbank-Glendale Light Rail EIR, which involves other Taylor Yard projects.

Response 1: Noise. There are three elementary schools within 1/2 mile of the Pasadena Line yard and shop site. These include Aragon Avenue Elementary School, Glassell Park Elementary School, and the Dorris Place Elementary School (see Exhibit 3). The following table lists the approximate distances from these three elementary school to the Original Taylor Yard location, the Linear Taylor Yard location, the Metrolink Yard location, and the Southern Pacific R.R. Yard location. These distances were estimated based on the approximate location of noise-generating maintenance facilities, such as maintenance shop, open air service area, train washer, industrial wastewater treatment plant, and locomotive maintenance area, to the nearest elementary school property line. Noise level reduction due to distance attenuation corresponding to each distance are provided in parenthesis (in dB), Table 1.

TABLE 1

**APPROXIMATE DISTANCE BETWEEN NOISE SOURCES AND RECEPTORS
(AND CORRESPONDING NOISE ATTENUATION)**

Noise Source	Distance to Elementary School, Feet (Noise Reduction, dB ^a)		
	Glassell Park	Aragon Avenue	Dorris Place
Original Taylor Yard Facility	2,640 (-34)	1,320 (-28)	1,400 (-29)
Linear Taylor Yard Facility	1,700 (-31)	3,000 (-36)	1,150 (-27)
Metrolink Yard Facility	5,200 (-40)	1,800 (-31)	2,640 (-34)
Southern Pacific Yard Facility	1,200 (-28)	2,650 (-34)	1,450 (-29)

^a Based on 6 dB reduction per doubling of distance with respect to noise level at 50 feet from noise source in outdoor sound propagation.

Source: MBA 1992.

These noise reduction levels did not take into consideration the effect of shielding provided by buildings, houses and natural berms that are located between the rail maintenance facilities and the schools. All three elementary schools have limited direct line-of-sight to the Original Taylor Yard site, as well as the Metrolink Yard facility. Approximately 6 to 8 dB noise reduction can be added to overall noise attenuation from these two facilities. Aragon Avenue Elementary School and Dorris Place Elementary School do not have direct line-of-sight to the Linear Taylor Yard site and Southern Pacific R.R. Yard. Approximately 10 dB noise reduction can be added to overall noise attenuation from these two facilities to the two school sites. Glassell Park Elementary School has limited line-of-sight to both the Linear Taylor Yard site and Southern Pacific R.R. Yard. Noise level from these two sources can be expected to be reduced approximately 5 to 6 dB. Total noise reduction from distance attenuation and shielding at these three school sites from the two Taylor Yard sites ranges from 34 dB (Original Taylor Yard to Aragon Avenue Elementary School) to 46 dB (Linear Taylor Yard to Aragon Avenue Elementary School). Refer to Table 2.

TABLE 2

**TOTAL NOISE REDUCTION FROM DISTANCE ATTENUATION AND SHIELDING
AT THREE SCHOOL SITES FROM RAIL MAINTENANCE FACILITIES, dB***

Noise Source	<u>Distance to Elementary School, Feet (Noise Reduction, dB*)</u>		
	Glassell Park	Aragon Avenue	Dorris Place
Original Taylor Yard Facility	-40	-34	-35
Linear Taylor Yard Facility	-36	-46	-37
Metrolink Yard Facility	-46	-37	-40
Southern Pacific Yard Facility	-33	-44	-39

* Based on 6 dB reduction per doubling of distance with respect to noise level at 50 feet from noise source in outdoor sound propagation.

Source: MBA 1992.

Based on page 7-1 of the Operations and Maintenance Plan proposed for this facility, the only activities or functions performed at the yard and shop site would be:

- Vehicle storage and yard operations
- Vehicle servicing and light maintenance (including car washing)
- Component replacement and limited repair
- Maintenance-of-way operations

Equipment proposed to be used at this facility consists primarily of electric and manual (hand-operated) machinery. Major repair of light rail vehicles which would require heavy-duty, stationary, diesel-powered equipment, would take place at the Long Beach (Blue Line) maintenance yard.

With the maximum noise level expected to be generated by the Pasadena Line yard maintenance activity set at 69 dBA, based on MBA's field measurement results at Long Beach Blue Line car wash facility, noise levels reaching these schools from the two Taylor Yard sites would range from 23 to 35 dB.

Without detail noise information for maintenance facilities at Southern Pacific R.R. Yard and the proposed Metrolink Yard, direct comparison between the contributions from Pasadena Line yard facilities and those two is not possible. However, an analysis based on the above projected noise levels at these three school from Pasadena Line yard can show that noise contribution from Pasadena Line yard and shop would not have any significant impact on existing ambient noise levels and cumulative noise levels from all rail maintenance facilities in this area.

Addition of one noise level to another is done as follows: When noise level from one source equals noise level from another source, the sum of the two noise levels is a level 3 dB higher than the original noise levels. When the difference between the two noise levels is less than 10 dB, the resulting noise level is 1 to 3 dB higher than the higher of the original two levels. If noise level from one source is at least 10 dB higher than the other, the lower noise level does not contribute to the overall noise level (0.4 dB contribution of less), i.e., the resulting noise level would be the same as the higher noise level of the two levels.

Three scenarios can be analyzed using the above statements. The first one assumes that noise levels at the three schools, attributable to Metrolink Yard and Southern Pacific R.R. Yard facilities, are comparable with those from Pasadena Line yard facilities. Under this assumption, a maximum of 3 dB is added to the higher of the original two noise levels. Overall rail maintenance-related noise level at these schools would be in the range of 26 to 38 dBA. If we also assume that, as a worst case scenario, noise levels from the rail maintenance yard are constant during the day when schools are in

session, the noise levels at these schools would be 26 to 38 dBA Leq. Noise level in this range is much lower than the LAUSD's criterion of 67 dBA Leq for exterior use. No project-related cumulative noise impacts would be anticipated for this scenario.

The second scenario assumes that noise levels attributable to Metrolink Yard and Southern Pacific R.R. Yard facilities are much lower (10 dB or more) than those from Pasadena Line yard facilities. This means that overall rail maintenance-related noise at the schools would be near those from Pasadena Line yard facilities, which are expected to be in the range of 26 to 38 dBA Leq. No project-related cumulative noise impacts would be anticipated for this scenario.

The third scenario assumes that noise levels attributable to Metrolink Yard and Southern Pacific R.R. Yard facilities are much higher (10 dB or more) than those from Pasadena Line yard facilities. This means that overall rail maintenance-related noise at the schools would be near those from Metrolink Yard and Southern Pacific R.R. Yard combined, and noise levels from Pasadena Line yard facilities would not contribute substantially to the overall noise levels. No project-related cumulative noise impacts would be anticipated for this scenario.

Air Quality. Based on: (1) the absence of heavy or major repairs or maintenance activities occurring onsite; (2) the predominance of electrically-powered equipment; (3) the enclosure of all stationary machinery and ensuring that machinery is equipped to prevent air pollution in conformance with the most strict regulations of the EPA, state, and local jurisdictions; (4) compliance with SCAQMD regulations and implementation of recommended mitigation measures and pollution controls designed to reduce air emissions; and (5) a 7-day maintenance schedule that would distribute operations evenly throughout the day and reduce a peaking of activities and, thus, the potential for concentrated emissions during school activity periods, there would be no substantial health risk associated with construction or operation of the Pasadena line yard and shop (see Appendix A for December 11, 1992, correspondence with Los Angeles Unified School District).

Comment 2: It is understood the LACTC will provide a refined air emission analysis, and that the EIR consultant will keep in touch with Bill Piazza of the District's Environmental Health and Safety Branch so as to ensure that the analysis is undertaken in accordance with the modeling and guidelines discussed previously by the LAUSD.

Response 2: LACTC and its consultants have maintained contact with Bill Piazza of LAUSD in supplementing the air emissions analysis. Please refer to Response to Comment 1 and the following fugitive dust analysis. Participation emission rates less than or equal to 10 microns (PM10) were generated by using proposed project scheduling reports and standard construction calculations for all earthmoving activities. To ensure a conservative estimate of PM10 impacts only maximum daily emissions were considered.

In order to assess the impact of these emissions on Los Angeles Unified School District sites, air quality modeling using the Fugitive Dust Model (FDM) was performed. FDM is an approved U.S. Environmental Protection Agency model specifically designed for computing particulate concentrations and deposition impacts from fugitive sources.

The model requires several input parameters, including emission source data and local meteorology. Meteorological data from the South Coast Air Quality Management District's Downtown Los Angeles monitoring station was used to represent local weather conditions and prevailing winds.

The maximum predicted 8-hour concentrations generated from the proposed "cornfield" and "Taylor Yard" sites were 77.34 and 44.06 micrograms per cubic meter, respectively.

Comment 3: Under Air Quality, the discussion of regional impact should be supplemented by a localized impact analysis. While offsets may mitigate impacts on a regional scale, these cannot be applied as mitigation to localized impacts.

Response 3: Prior to the discussion of Regional Air Quality Impacts, the SEIR discusses local long-term impacts on air quality (pages 4-50 to 4-52). This discussion is broken into two segments: (1) Stationary Sources and (2) Mobile Sources, also see Response to Comment 1 and Attachment A.

Comment 4: District staff further understands that the analysis of cumulative noise impacts will be undertaken in accordance with District guidelines, which were provided to LACTC staff.

Response 4: Refer to Response to Comment 1.

Comment 5: The LAUSD is currently studying the Cornfield Yard. It is one of several sites which is included in a feasibility study for a new high school. A DEIR on this high school project was

circulated for public review in November of 1990, but has not yet been certified by the Board of Education.

Response 5: Comment noted. Please note that the proposed maintenance yard will occupy only a portion of the Cornfield site. Thus, implementation of the LRT facilities would not preclude other developments from occurring on the site.

Comment 6: In addition to the fencing to prohibit children from crossing the rails in the vicinity of Arroyo Seco and other schools, the fencing at the Arroyo Seco School playground, which abuts the tracks, should be raised so that students' balls do not go over the fence and onto the tracks.

Response 6: Soundwalls to be constructed as noise and safety mitigation will serve this purpose. The soundwalls are to be 6 feet in height and approximately 12 feet from the existing school fence.

Comment 7: Some of the fences along the Long Beach LRT are repeatedly cut so that pedestrians can cross over the tracks. Before designing fences in areas abutting schools, please discuss the pros and cons of different type of fencing with the School District staff, in order to derive a optimal design for fences (or walls) to ensure student safety. Please coordinate planning for fences or walls through this office.

Response 7: As requested, prior to finalizing fence design and location for areas along the previously approved alignment that are adjacent to school facilities, LACTC will work in cooperation with the school district staff to ensure student safety. See also Response to Comment 6, which indicates that a soundwall would be constructed along the Arroyo Seco School and will further prevent students from crossing the tracks.

Comment 8: As agreed in our November 4th meeting, please take measurements of ambient noise at Arroyo Seco School, in accordance with the District's noise guidelines.

Response 8: As noted in the 1990 draft EIR, a 6-foot soundwall will be implemented at this location to mitigate noise impacts to the Arroyo Seco School (see page 4-106 of the draft EIR which is available for review at LACTC).

Comment 9: Where grading, excavation, or other dirt-moving is to be undertaken near schools, extra care should be taken to minimize fugitive dust. Please provide details of construction work needed at Arroyo Seco School (soundwalls, measurements of berms, etc.) and provide a "hot spot" analysis if particulate emissions are likely to be substantial.

Response 9: Air pollution controls outlined in the Operations and Maintenance Plan, to control the potential for fugitive dust emissions during project construction (soundwall and track replacement) include implementation of SCAQMD Rules 402 and 403. In order to implement these regulations, the following procedures would be used:

- Cover loads of materials, debris and waste materials taken from construction sites.
- Water down and sweep streets which have heavy volumes of construction vehicles carrying debris and excavated materials daily.
- Establish regular cycles and locations for washing trucks which haul waste materials from Worksite.
- Water down construction sites as needed to suppress dust during handling of excavation soil or debris or during demolition.

Construction equipment that will be used for this project will have been designed and equipped to prevent or control air pollution in conformance with the most strict regulations of the EPA, State and local authorities. Construction work at the Arroyo Seco School will include removal of the existing track work and installation of new track and the construction of a soundwall. These activities would not result in substantial soil displacement and, therefore, would not result in a significant impact from fugitive dust. As stated in the previous paragraph, construction work along the portion of the alignment adjacent to Arroyo Seco School would comply with SCAQMD Rules 402 and 403. See also Response to Comment 1.

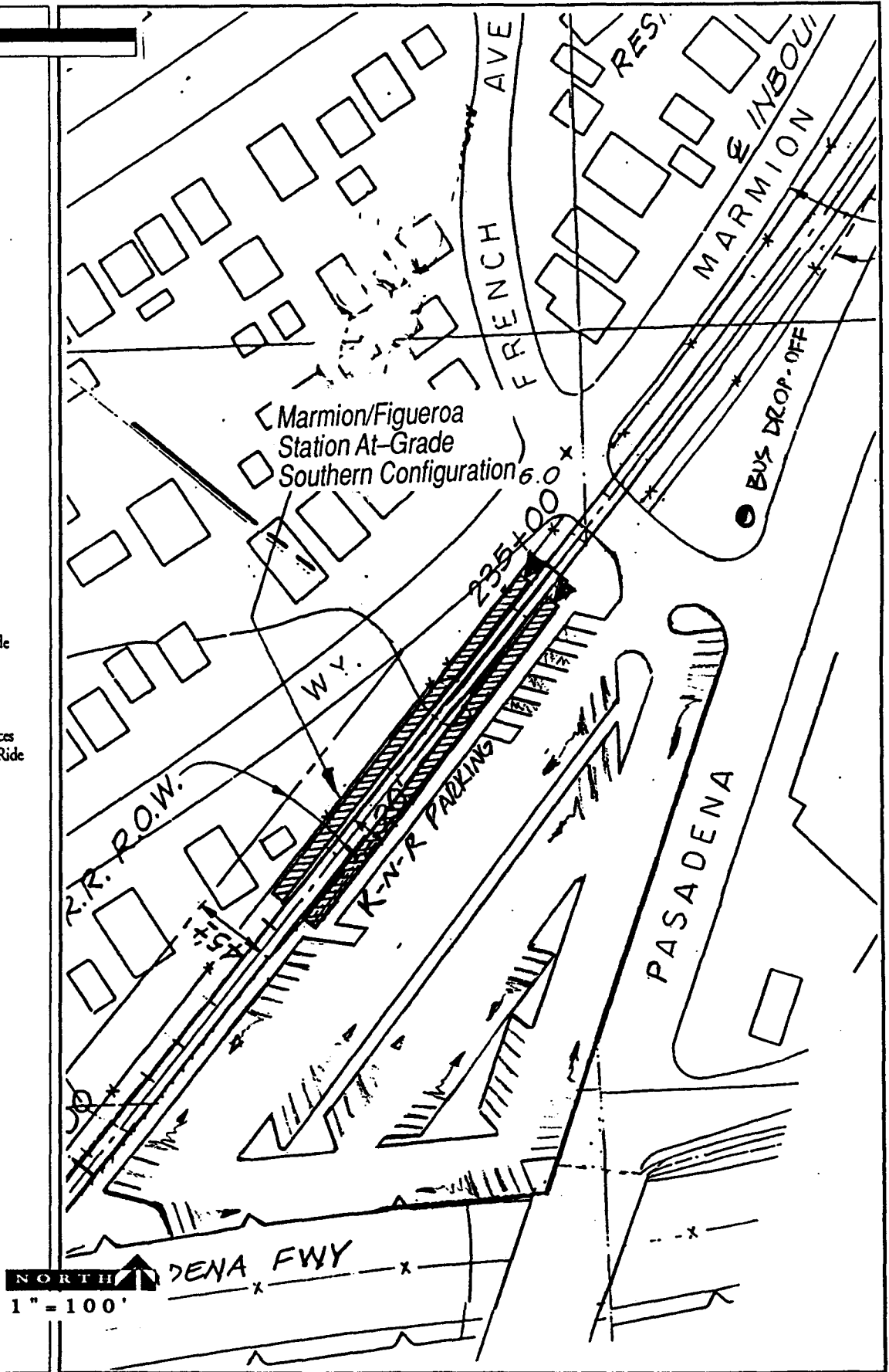
Comment 10: Please provide a site plan for the Park-and-ride Lot which is being considered near French Avenue. It seems that this lot is approximately 400 to 500 feet from the Loreto Street and Hillside Schools.

Response 10: Preliminary site plans have been prepared and shown on Exhibit 4 following this page.

LEGEND

NOTE:

1. Refer to Marmion/Figueroa Grade Separation Drawing (REV. "B", dated 7/30/92)
2. This Park-N-Ride lot Provides Approximately 175 Parking Spaces and Handicapped and Kiss-N-Ride Parking



PARK-N-RIDE LOT CONFIGURATION

Pasadena Light Rail Final Supplemental EIR

Michael Brandman Associates

exhibit

Comment 11: Please provide hot spot analysis for this Park-and-ride Lot and discuss the impact of increased emissions on students. Also, please provide the noise impacts.

Response 11: As indicated on page 4-26 of the Pasadena Light Rail Supplemental EIR, the park-and-ride lot is proposed for French Avenue near the intersection of Marmion Way and Figueroa Street. The projected number of trips for this facility for the peak hour would be 312 trips. (It should be noted that the park-and-ride lot would only be implemented if the light rail alignment is grade-separated at Marmion Way and Figueroa, causing the station to shift southward.)

It is recognized that park-and-ride lots have the potential to affect local pollution concentrations, resulting in localized concentrations of carbon monoxide, often termed "hot spots." CO hot spots are cause for concern if there is a potential that sensitive receptors may be exposed to high concentrations of carbon monoxide. Carbon monoxide is a "localized" pollutant; transport is extremely limited. Therefore, the highest concentrations of CO are associated with areas of highest traffic density. Traffic density is defined by the operating level of service (LOS) of a roadway. Thus, the potential for "hot spots" directly corresponds to the projected LOS at the nearby intersection.

As stated in Table 4.2-9 in the EIR, the LOS for the intersection located nearest the proposed park-and-ride lot (Marmion Way, Figueroa Street, and French Avenue) would experience a LOS B in the year 2010 (project buildout). LOS B indicates a stable flow of traffic with few restrictions on operating speed. With LOS B, the potential for queuing or idling of vehicle engines would be minimal. Since hot spots are linked to poorly functioning roadways, no CO hot spot would be associated with the proposed French Avenue park-and-ride lot.

This is demonstrated quantitatively in Table A which depicts existing and projected CO levels for the a.m. peak hour for the intersection of Pasadena Avenue and French Avenue which would be most impacted by the park-and-ride lot.

Currently the intersection of Pasadena Avenue and French Avenue exceeds state and federal 8-hour standards for CO concentrations. Additionally, under both future scenarios (future without the project and future with the project) carbon monoxide concentrations within the vicinity of the intersection exceed the state and national 8-hour CO standards. It should be noted that the CO levels projected at this intersection would be lower in all cases than existing CO levels. Furthermore, future vehicle emissions will decrease with the gradual introduction of engineering controls into the vehicle fleet mix.

Implementation of the proposed project would not have a significant impact on local air quality due to project related increases in mobile-source emissions.

TABLE A
MAXIMUM CARBON MONOXIDE CONCENTRATIONS*

Intersection	Receptor Location ^c	Carbon Monoxide Concentrations ^b (1 hr/8 hr)		
		Existing	2010 Future With Project	2010 Future Without Project
Pasadena Avenue and French Avenue	E 19	19.4/12.4	17.5/11.0	17.6/11.1
	E 29	18.6/11.8	17.1/10.8	17.3/10.9
	SW 32	18.4/11.7	17.0/10.7	17.2/10.8
	SW 123	16.9/10.6	16.4/10.3	16.4/10.3
	NW 32	18.4/11.7	17.0/10.7	17.2/10.8
	NW 123	16.9/10.6	16.4/10.3	16.4/10.3

- ^a The federal standards are 35 ppm (1-hour average) and 9.5 ppm (8-hour average); state standards are 20 ppm (1-hour average) and 9.1 ppm (8-hour average).
- ^b A background carbon monoxide level of 16.0 has been added to the 1-hour concentration. A background carbon monoxide level of 11.0 was added to the 8-hour concentration.
- ^c Receptor location indicates direction and distance (in meters) from the intersection centerline. Receptors were located to approximate CO concentration near schedules attributable to the French Avenue park-and-ride site.

Source: Michael Brandman Associates 1992.

Once an exceedance is identified for existing conditions or predicted for future without project conditions, the determination of significance is based upon whether or not the project would contribute "substantially" to that exceedance. The SCAQMD's Rule 1303 provides additional guidelines for determining the significance of an increase in carbon monoxide concentrations in an area that already exceeds the CO standard. Rule 1303 defines an allowable increase in 1-hour CO concentrations as less than 1 ppm and 8-hour CO levels as less than 0.45 ppm.

The highest level increases in CO concentrations between the future without the project and cumulative future with the project scenarios is 0.10 ppm for the 8-hour period. Therefore, because the projected-related increase in emissions would be lower than the above identified threshold, implementation of the French Avenue park-and-ride lot would not have a significant impact on local CO concentrations.

Though students at the Loreto Street and Hillside schools are considered sensitive receptors, students would be located approximately 400 to 500 feet from the intersection of Pasadena Avenue and French Avenue. As stated above, carbon monoxide is a "localized" pollutant; transport is extremely limited. This low level of vehicular activity combined with the acceptable level of service on local roadways and nearby intersections indicate that localized vehicular emissions associated with access to the park-and-ride lot would not result in a significant air quality impact or health risk. In addition, any afternoon peak traffic emissions concentrations would occur after students have been let out of school.

Noise impacts to the Loreto Street and Hillside Schools would be dominated by the presence of the Pasadena Freeway. Since the Hillside School is located on the opposite side of the Pasadena Freeway, noise impacts from the proposed park-and-ride lot would not be significant. The Loreto School is located over 500 feet from the proposed park-and-ride facility. Additionally, the Pasadena Freeway is located adjacent to the school site. Therefore, noise impacts are not anticipated to be significant at this school location.

Comment 12: If there is to be vacation of French Avenue, or changes to any other streets in the area, please provide details. Students cross the tracks at French Avenue when walking to and from school. Please explain how safe pedestrian access would be maintained. Please discuss the speed of the trains at this crossing, and their frequency.

Response 12: French Avenue will remain open. Pedestrian access will be possible using sidewalk access. The line will operate trains at a minimum frequency of one every 6 to 7 minutes in each direction, with maximum speeds ranging from 45 to 55 mph between the Avenue 25 and Marmion Way/Figueroa Stations. However, as French Avenue is located near all three alternative station locations, the LRT vehicles will be moving slowly as they either approach or depart from the Marmion Way/Figueroa Station. Additionally, the PUC requires that all LRT vehicles sound their horns as they approach each at-grade crossing (such as French Avenue).

Comment 13: Will there be overflow parking at this station which might interfere with on-street parking at the nearby schools. If so, please provide mitigation.

Response 13: Significant overflow parking impacts are not anticipated at this time. Once the ultimate configuration of the station is determined, LACTC will reevaluate the potential for spillover parking.

LACTC will coordinate with the LADOT and LAUSD to ensure that any potential spillover parking minimizes the impact to on-street parking at nearby schools.

Comment 1: The Rail Transit project's noise, air quality, and aesthetic impacts at the Arroyo Seco School should be further analyzed through this SEIR process. This request can be justified by CEQA procedures.

Response 1: **Noise.** The distance from nearest classroom building to centerline of rail tracks is approximately 30 feet. It is approximately 20 feet from this nearest classroom building to the property line, where a 6-foot soundwall will be implemented.

Noise Impacts from LRT Operation

Maximum sound levels for an at-grade LRT traveling at 35 mph is 74 dBA at 50 feet from the train. At 50 mph, it increases to 80 dBA. The 6-foot soundwall, after it is implemented (along the R.R. right of way), will provide from 10 up to 25 dB noise reduction, depending on the location of the receptor at the school site. The nearest classroom building will receive approximately 20 dB noise reduction. LRT operation noise received just outside of this nearest classroom building would be 54 dBA, when the train travels at 35 mph. The noise level goes up to 60 dBA if the train travels at 50 mph. The 60 dBA train passby noise level is lower than the 67 dBA exterior noise criterion set by the LAUSD.

Noise Impacts from Construction of Soundwall and Track Replacement

Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles may involve 2 minutes of full power, followed by 3 or 4 minutes at lower settings.

It is recommended that the proposed 6-foot soundwall be built prior to the track replacement in the area adjacent to Arroyo Seco School. The 6-foot soundwall will provide, as discussed above, from 10 up to 25 dB noise reduction for receptors on the school site, depending on the location of the receptors.

Typical construction equipment expected to be utilized during the construction of the transportation facilities and the related radiated noise levels are presented in Table 3. See also Response to Comments 8 and 9, Elizabeth Harris, November 11, 1992.

TABLE 3
TYPICAL CONSTRUCTION EQUIPMENT NOISE
BEFORE AND AFTER MITIGATION

Equipment	Mitigation Measures	Noise Level (dBA)		Distance (feet)
		Before	After	
Pile Driver	Muffler on exhaust and sound barrier the leads	103	95	25
Pavement Breaker	Muffled	105	100	3
Diesel Driven Electric Welder	Mufflers plus acoustical enclosure	93	76	23
Air Compressor (Diesel Driven)	Muffled	105	85	3
Air Tracked Drill	Acoustical enclosure	104	83	23
Chain Saw				
Gasoline	None	113	113	3
Electric	None	86	86	3
Sinker Drill	Acoustical enclosure	95	78	3
Earth Movers				
Front Loader	Muffler	79	75	50
Back Hoe	Muffler	85	75	50
Dozer	Muffler	80	75	50
Grader	Muffler	91	75	50
Truck	Muffler	91	75	50
Paver	Muffler	89	80	50
Material Handlers				
Concrete Mixer	Muffler	85	75	50
Crane	Muffler	83	75	50
Jack Hammer	Muffler or acoustical enclosure	88	75	50

Source: Urban Mass Transportation Administration, 1974; U.S. EPA, 1971.

Equipment expected to be used for track replacement would generate maximum noise levels of 86 dBA at 25 feet. When noise reduction from the soundwall is subtracted from this construction noise, the nearest classroom building would not be exposed to construction noise levels exceeding 66 dBA (a 20 dB reduction). At this level, noise would not be considered significant.

During construction of the soundwall, however, noise levels at classroom buildings facing the rail tracks would be substantially higher. Unless portable sound barriers are used, no noise shielding would be expected during this period. Use of portable sound barriers effectively between the classroom buildings and the soundwall construction location would reduce the noise level by approximately 8 to 20 dB, depending on the height and material of the portable sound barriers. Construction noise levels at the nearest classroom building would be up to 86 dBA. Even with noise reduction from portable sound barriers, such construction noise would still be high, ranging from 60 to 78. Therefore, it is recommended that construction of the proposed 6-foot soundwall be conducted after school hours (i.e., after 3 p.m.) during weekdays or during the nonschool activity summer periods. No significant construction noise impact would be expected since no sensitive school use would take place.

Air Quality. Refer to Response to Comment 9, Elizabeth Harris, November 21, 1992.

Aesthetics. Construction of the soundwall may require removal of existing vegetation adjacent to or within the LRT alignment. Any vegetation removed will be replaced on a one to one basis where feasible, recognizing slope constraints. In addition, the soundwall shall be an earth tone color to blend into the hillside.

Comment 2: The SEIR erroneously concluded that there would be no noise impacts on Arroyo Seco School. Much, if not most, of the alignment by the school is not in a depressed configuration as discussed in the DEIR's response to comments. The alignment is located about 30 feet from the school, on the top of a steep slope which rises above the school, and which may make noise mitigation more difficult.

Response 2: The 1990 EIR on the environmental analysis for the light rail alignment was certified in 1990, including the portion of the route adjacent to Arroyo Seco School. The 1990 draft EIR included a soundwall for noise mitigation at the Arroyo Seco School. See Section 4.6 of the draft EIR

which is available for review at LACTC. A 6-foot soundwall would be constructed and would mitigate noise impacts to less than significant levels.

Comments 3: Noise measurements should be taken at the Arroyo Seco School.

Response 3: Refer to Response to Comment 2.

Comment 4: It is possible that under CEQA Guidelines (Section 15162), this new information about the track configuration (i.e. the alignment by Arroyo Seco School is located on the top of a steep slope which rises above the school rather than depressed) would trigger a subsequent environmental review. When taken together with new information about high noise levels of the Blue Line trains (e.g. noise registered up to 97 decibels in the north Long Beach area in 1992 - higher than anticipated by the 1990 DEIR at 84 dBA at locations within 180 feet from the track centerline), the noise impacts at Arroyo Seco should definitely be analyzed, and mitigation provided, during this SEIR process.

Responses 4: The intent of the 1990 EIR was to provide a soundwall at this location, as identified on page 4-106 of the draft EIR. LACTC will follow through on the mitigation measure as stated in the draft EIR. See also Response to Comment 2, which identifies the mitigation as a 6-foot soundwall.

Comment 5: Because the train configuration is not depressed at Arroyo Seco School, there are related impacts which should be reviewed before certification of the SEIR:

1. Existing trees and vegetation on the slope, that screen out some noise as trains pass by and views of the tracks, may be removed. How will they be removed, what type and size of trees will be replanted, and how will the tree removal/replacement affect noise attenuation?
2. There is visual evidence of slope instability and slumping, which may be exacerbated by frequent LRT vibrations. Specifically, what will be done to stabilize this slope?

Response 5: Refer also to Response to Comments 2 and 4.

1. Construction of the project may require removal vegetation adjacent to, or within, the LRT right-of-way to provide safety clearance near the cantenary system. Any vegetation removed will be replaced where feasible.

2. Please refer to mitigation measures 2, 3, and 4 of section 4.3.3 of the draft SEIR, which mitigates the potential for slope instability and slumping impacts generated by frequent operation of the LRT.

Comment 6: The LAUSD requested design details on mitigation for the project impacts at Arroyo Seco School for the District review before the certification of the SEIR. There was no acknowledgement that this would be provided in that time frame. LACTC responded that since the project impacts at Arroyo Seco School had been reviewed in the DEIR (1990), and the document had been certified, there was no need to tie this in with the SEIR. LAUSD does not agree. All project impacts at Arroyo Seco should be reviewed and that mitigation be fully outlined in the FEIR with appropriate detail. The LAUSD needs to be able to review the analysis of project impacts and mitigation measures at Arroyo Seco School before it can support certification of the Final SEIR for this project.

Response 6: Refer to Response to Comments 1, 2, and 4.

**Los Angeles Unified School District, Environmental Health and Safety Branch - Susie Wong,
Internal Memorandum to Elizabeth Harris, Real Estate Division - November 4, 1992**

Comment 1: LACTC has failed to adequately evaluate cumulative impacts on noise and air quality which may result from locating the Pasadena LRT maintenance facilities on the Taylor Yard. As discussed earlier, there are already two rail maintenance facilities on this site.

Response 1: Refer to Response to Comments 1 and 3, Elizabeth Harris, November 11, 1992.

Comment 2: It should be noted that at a community workshop held on October 23-25, 1992, local business owners, residents, politicians, schools, state, and local agencies, and various activist groups opposed another rail maintenance facility on the Taylor Yard.

Response 2: Comment noted.

Comment 3: The Final SEIR should address the recommendations which will be presented by the American Institute of Architects (AIA) on November 13-15 and take them into consideration. In addition, the comment period should be extended to November 18, 1992 so that results from the workshop can be included for consideration.

Response 3: Comment noted.

Comment 4: The SEIR has failed to identify and mitigate noise impacts from new rail installation and horns blowing when the trains come around the curve behind the Arroyo Seco School. The rails are not in a depressed area as indicated in the SEIR, but are clearly visible from the school. Therefore, the SEIR must include mitigation for these impacts since there is no earthen berm to protect the school from noise impacts. It is recommended that a noise barrier with an appropriate attenuation be erected around this site.

Response 4: See Response to Comments 1 and 2, Elizabeth Harris, November 11, 1992.

Additionally, LACTC is in the process of replacing the horns from the existing 100 dBA horns to a 86 dBA. This will minimize the potential for noise impacts. As much of the noise from LRT is caused from wheel to rail friction, LACTC will be starting a rail maintenance program by which they

periodically grind the imperfections from the tops of the rails. This will provide for reduced noise during vehicle movement and braking. LACTC has initiated this program based on Blue Line operational experience. LACTC will be renting the equipment for preliminary usage and eventually buy one for long-term maintenance of all rail.

Comment 5: The SEIR has failed to identify and mitigate vibration impacts from construction and operation of the LRT on the Arroyo Seco School. The slope behind the school which angles upward to the trackage is not supported and some slumping has already occurred. The vibration which will result from steady rail traffic may cause this slope to fail. Therefore, an engineering study is necessary to ensure the stability of this slope.

Response 5: Please refer to Section 4.3.3 of the SEIR, Geology, Soils, and Seismicity, for a discussion of mitigation measures designed to ensure slope stability for all portions of the project.

Comment 6: The trackage in the area of Arroyo Seco School is not properly fenced to prohibit children from crossing the rails. The SEIR should include provisions for fencing to ensure that pedestrian traffic is prohibited from taking "short cuts" across the rails.

Response 6: Refer to Response to Comment 12, Elizabeth Harris, November 11, 1992.

Chinatown Community Advisory Committee - Munson A. Kwok, November 12, 1992

Comment 1: The Chinatown Community Advisory Committee opposes the proposal to place the LRT maintenance yard in the Cornfield property. The Committee is concerned, despite the SEIR analysis, that the operations will disturb nearby residents, who include the people of Chinatown, many elderly and young. Noise and vibration, light and glare, will remain serious issues, especially in the deep of the night when sound carries and light may be scattered by the surroundings or by the pollution filled atmosphere. This happens with Dodger Stadium now. Since many of the maintenance operations will be nocturnal, these are sufficiently serious to the Committee as there are residents just on the other side of Broadway, across from the proposed yard site.

Response 1: Comment noted. As your comment indicates, the SEIR found that after implementation of the proposed mitigation measures, impacts associated with noise and vibration, and light and glare will be reduced to not significant levels. This findings was based on methodology, standard practices, and guidelines approved by the City and County. The comment will be forwarded on to the decision makers for their consideration.

Comment 2: The SEIR did not address cultural resources at the Cornfield site adequately. The Zanja Madre, the original water system for Los Angeles, crosses this site. In addition, some historically significant engineering achievements in Los Angeles reside on this site, or nearby. The American Society of Mechanical Engineers recognized the centennial structures in this area as the first steel overpasses for a "light rail" system a century ago. An appropriate mitigation here is a museum and educational center recounting the engineering triumphs (from Zanja to Light Rail) that have made this City great.

Response 2: The Zanja Madre is addressed and discussed in detail on pages 4-95 through 4-96 of the draft SEIR. Although no archaeological surveys have been conducted in the Cornfield Yard area, significant archaeological resources are expected to exist, including the Zanja Madre. Mitigation measures recommended to minimize any potential impacts to archaeological resources are addressed on page 4-101 of the draft SEIR.

Comment 3: Object that the bulk of the analysis of maintenance yards in the SEIR focuses on Taylor Yard. So as not to "short shift" the public, more work should be done for an adequate SEIR and this matter should not go through by negative declaration.

Response 3: The discussion on Taylor Yard is longer in length because there are three components for a maintenance yard at Taylor Yard (original option, linear option, and the Taylor Yard Wye Connector), while there is only one proposed configuration for the Cornfield and West Bank options. The SEIR addressed environmental impacts to the Cornfield Site in Section 4.

Comment 4: The choice of the Cornfield as a maintenance yard is not the "highest and best" use of the precious acreage adjacent to Chinatown. This is the only site you propose contiguous to residential and commercial neighborhoods that are rapidly growing. A better investment for the City and County into their futures is a broad range of developments attractive to a living community, not a maintenance yard.

Response 4: The Taylor Yard has a similar relationship to residential areas. Development of any of the yard alternatives will not preclude development of other, community serving uses. Additionally, the Central City North Community Plan of the City of Los Angeles General Plan designates Cornfield Yard as "Light Industrial". This designation accommodates automobile parking (Zone "P"), airports/aircraft landing fields, junk yards, electric railroad yards (Zone "M2") and industrial uses (Zone "MR2"). The light rail service and maintenance facilities proposed by LACTC are consistent with the provisions of the Central City North Community Plan of the City of Los Angeles General Plan and the requirements of the City of Los Angeles Planning Code. Additionally, the Cornfield site is currently used for diesel locomotive operations.

Chinatown Community Advisory Committee - Munson A. Kwok, November 15, 1992

Comment 1: The Chinatown Community Advisory Committee opposes the use of the Cornfield site for the placement of maintenance facilities. This project is not in the highest and best use of this valuable acreage. The Chinese community already surrounds the southern half of the Cornfield site. Therefore, it is logical to assume that as this land becomes available, community-oriented developments will move into the Cornfield site. This site is the only one proposed by LACTC that is immediately adjacent to any sort of thriving residential and business community. The placement of the yard here would imply a serious deprivation of near-future potential for one of the significant and important ethnic communities which make up our multicultural city and county. A more appropriate usage would be the development of a mixed use community with housing for a cross section of economic needs, controlled development of business and office centers, crucial portions of open and recreational spaces, recreational facilities, and centers for community services such as child care, board and care, culture, and job training.

Response 1: The Taylor Yard is also contiguous to residential areas. Development of any of the yard alternatives will not preclude development of other, community serving uses. Additionally, the Central City North Community Plan of the City of Los Angeles General Plan designates Cornfield Yard as "Light Industrial". This designation accommodates automobile parking (Zone "P"), airports/aircraft landing fields, junk yards, electric railroad yards (Zone "M2") and industrial uses (Zone "MR2"). The light rail service and maintenance facilities proposed by LACTC are consistent with the provisions of the Central City North Community Plan of the City of Los Angeles General Plan and the requirements of the City of Los Angeles Planning Code. Additionally, the Cornfield site is currently used for diesel locomotive operations.

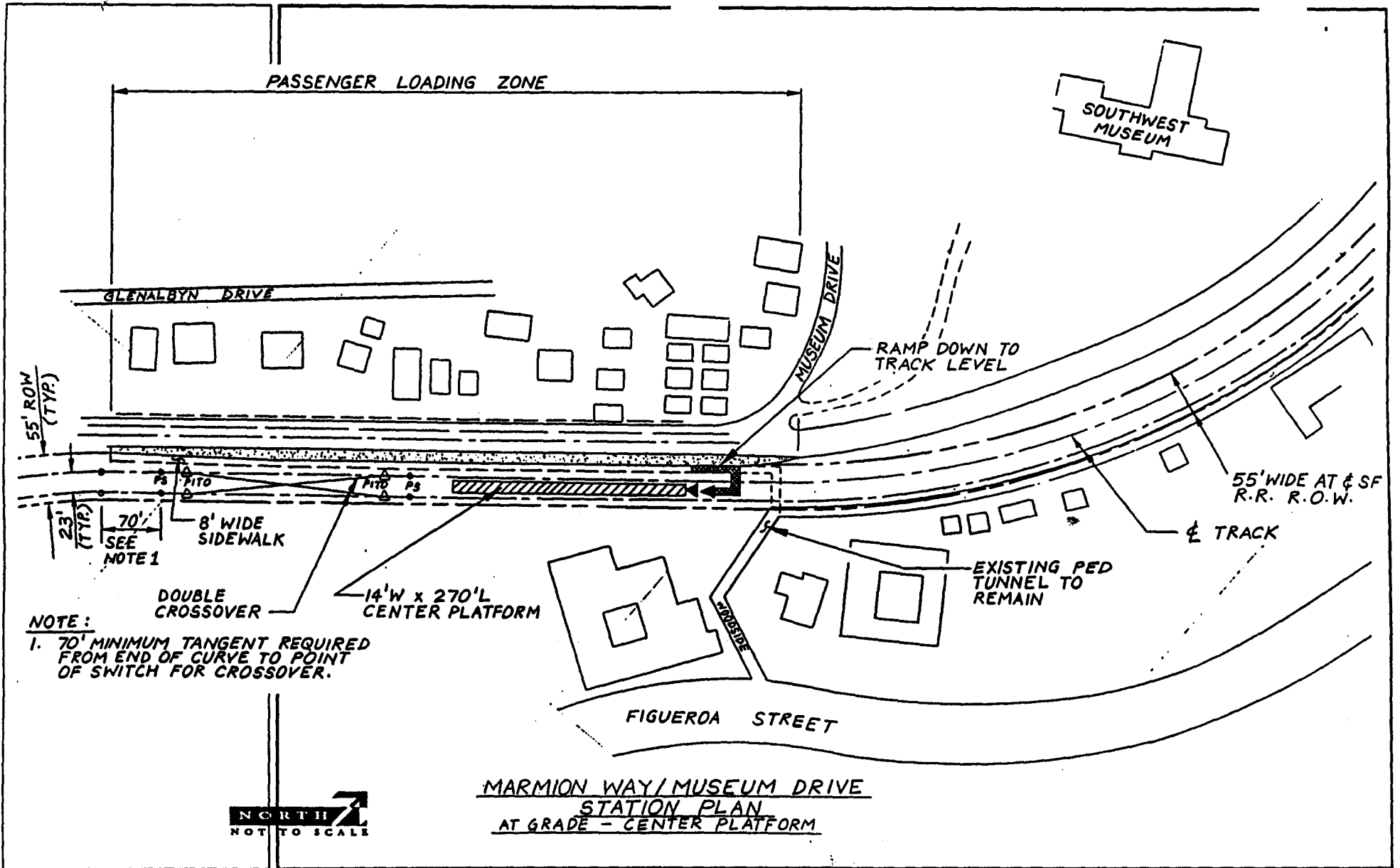
Pasadena Heritage - Claire W. Bogaard

Comment 1: There are several references to types of stations in the SEIR: at-grade, subway, and aerial. There is no substantive information about those three station designs, their size, or the specific locations where they will be used. Please provide full and complete information as to the design of the different stations, where they will be used, and how large they will be.

Response 1: Section 3.3.3, Station Locations, of the Draft SEIR and Section 4.8, Aesthetics, discuss the characteristics and locations of the three light rail stations studied in this document. As noted on page 4-87 of the Draft SEIR, at-grade stations would typically consist of 300-foot long platforms varying from 10 to 15 feet in width and approximately 3 feet in height. A canopy fare vending machine, a closed circuit television (CCTV), and a phone would be located on the platform. It should be noted that the certified EIR (Section 3.2B) examined 36 candidate stations, of which 17 stations related to the approved project.

This SEIR analyzes the environmental effects associated with the modifications to the approved project, including three alternative station sites: Southwest Museum station, Allen Avenue station, and Fillmore Street station. There are three alternative site configurations being considered for the location of the Fillmore Street Station. Two of the proposed configurations are at-grade, north or south along the alignment, or one would be elevated over Figueroa Street. Refer to page 3-9 of the Draft SEIR, Section 4.1, Land Use, for description of these alternative configurations. The City of Los Angeles requested that a station be considered adjacent to the location of the Southwest Museum in Mount Washington at Marmion Way and Museum Drive, along the previously approved alignment. The City of Pasadena has requested that a station at Allen Street (replacing the previously cleared station at Hill and Altadena Avenue) and a station at Fillmore Street (replacing stations at Glenarm and California Streets) be considered. The Fillmore Street station would be located between Arroyo Parkway and Raymond Avenue, north of Glenarm Street. This station would consist of a side platform. The Allen Avenue station would be located within the AT&SF right-of-way in the median of the I-210.

Final station design has not been developed at this time. However, Exhibits 3.3-6, 3.3-7, 3.3-8, 4.2-4, and 4.8-1 of the draft EIR and following this page, graphically depict the three alternative station sites and typical station cross sections. Architectural teams will work with the neighboring communities, appropriate City agencies, and interested parties to develop architecturally sensitive designs.



NOTE:
 1. 70' MINIMUM TANGENT REQUIRED FROM END OF CURVE TO POINT OF SWITCH FOR CROSSOVER.

MARMION WAY/MUSEUM DRIVE
STATION PLAN
AT GRADE - CENTER PLATFORM

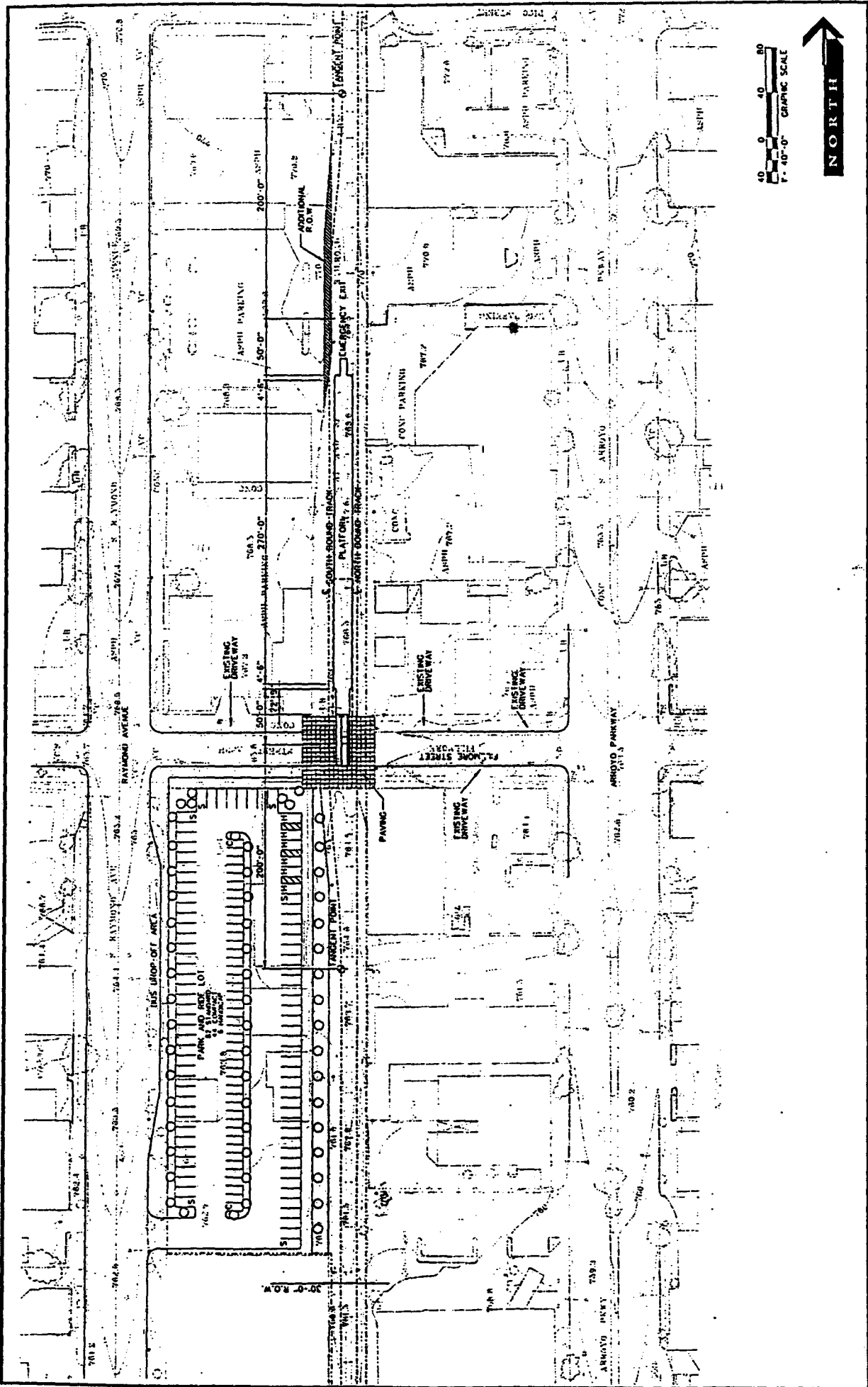
336
 exhibit

SOUTHWEST MUSEUM STATION

Pasadena Light Rail Supplemental EIR

Michael Brandman Associates

exhibit
 3.3-6



FILLMORE STATION

Pasadena Light Rail Final Supplemental EIR

Michael Brandman Associates

exhibit 3.3-7

exhibit 3.3-7



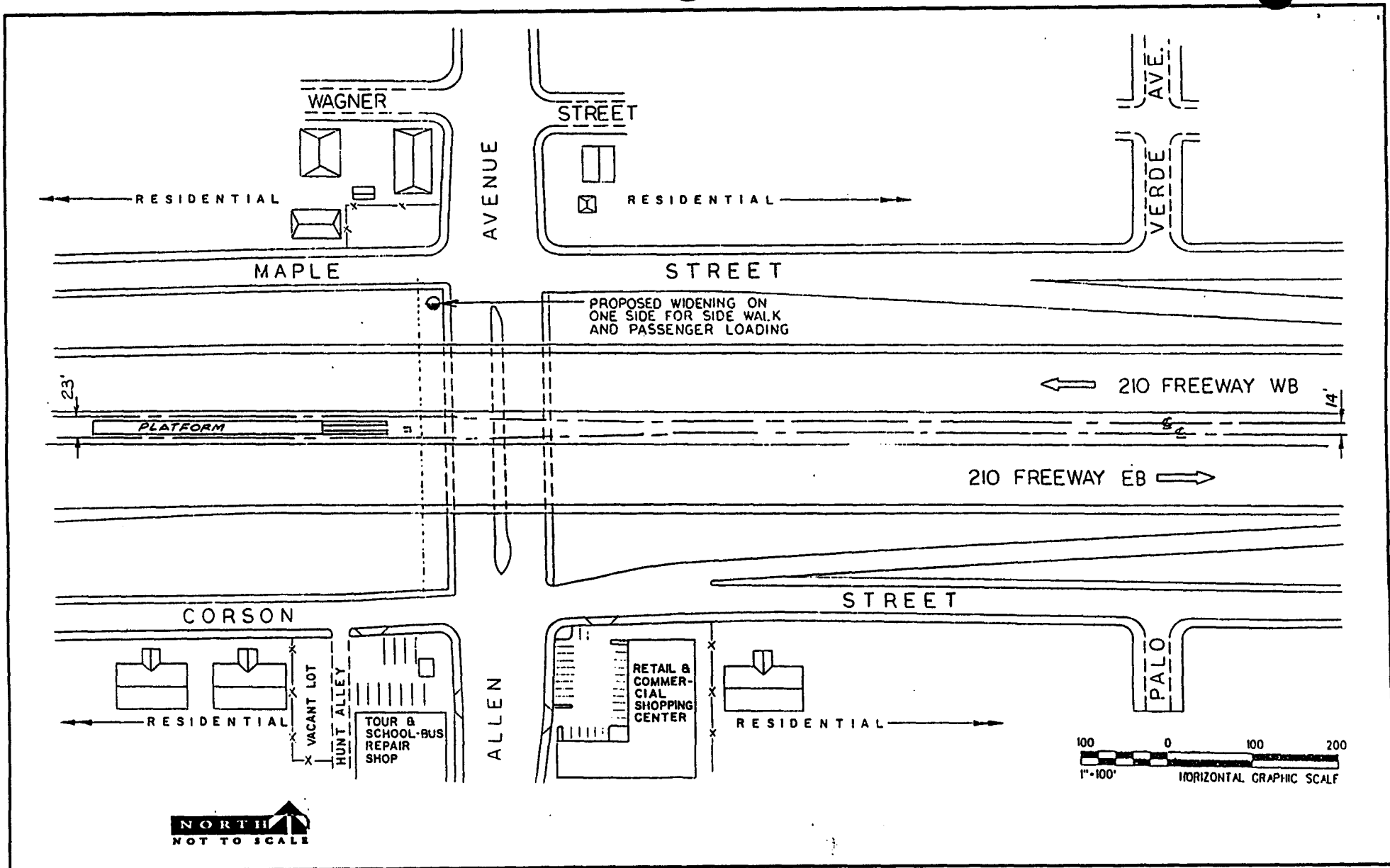


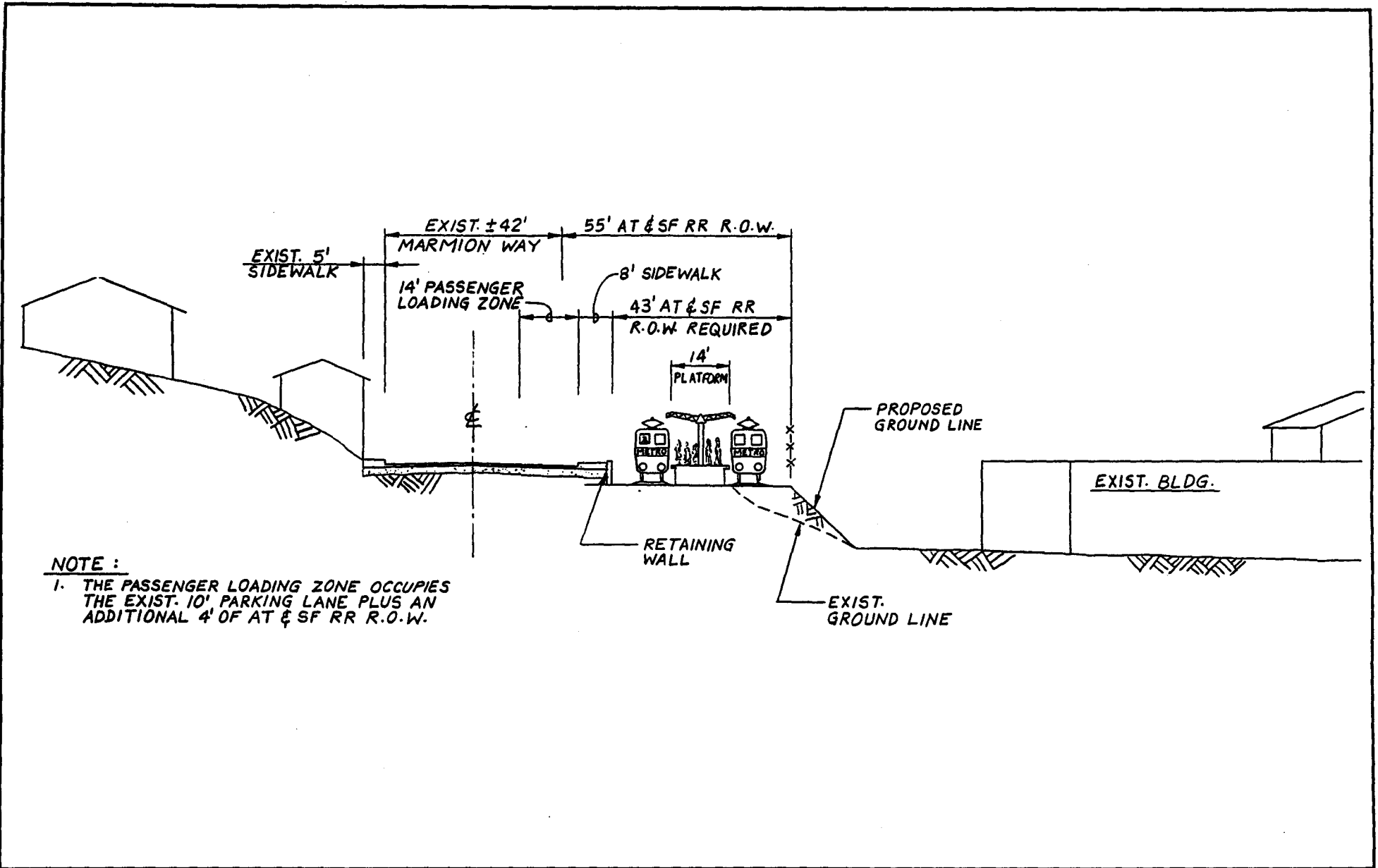
exhibit
 3.3-8

ALLEN AVENUE STATION

Pasadena Light Rail Final Supplemental EIR

Michael Brandman Associates

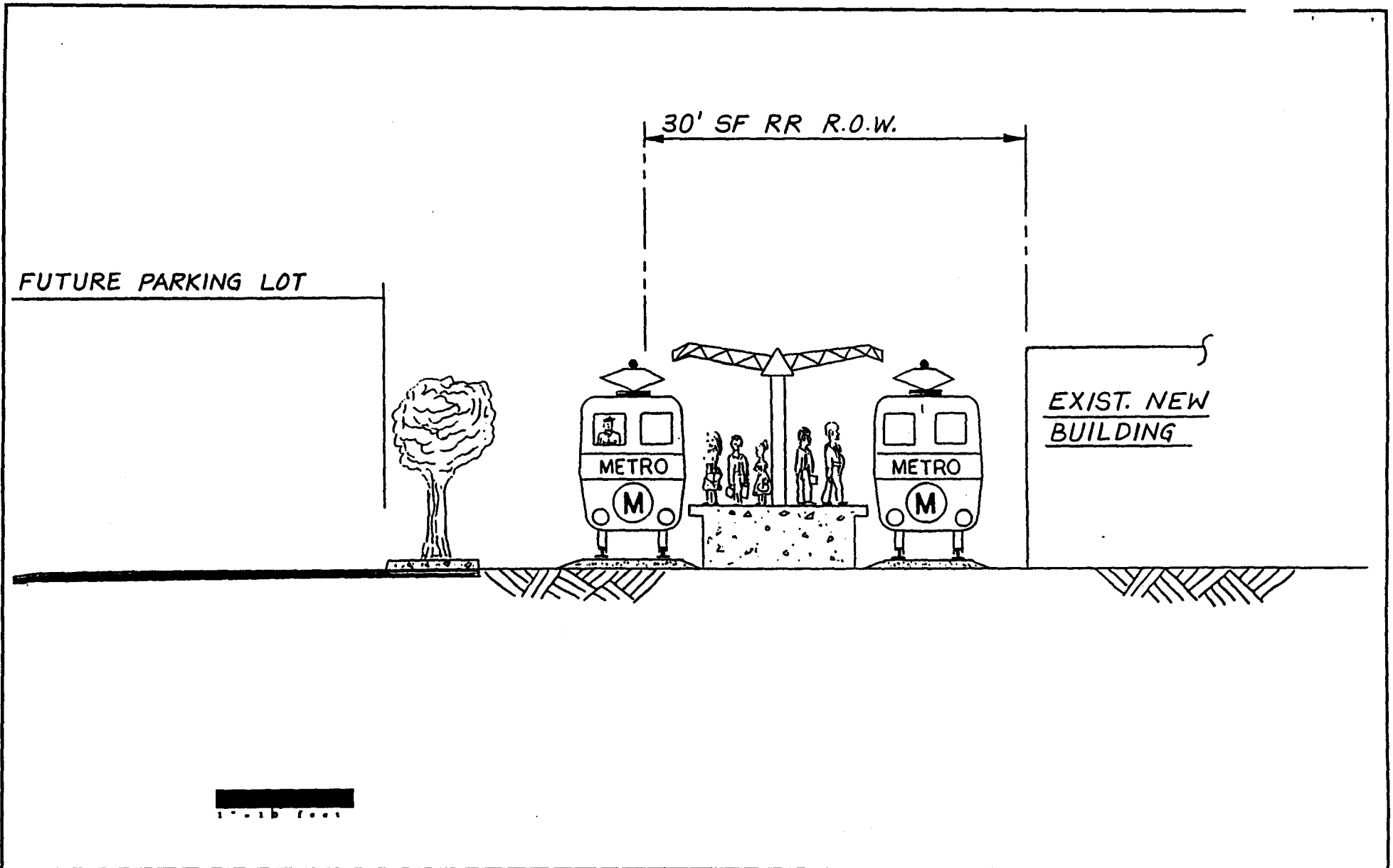
exhibit
 3.3-8



NOTE :

1. THE PASSENGER LOADING ZONE OCCUPIES THE EXIST. 10' PARKING LANE PLUS AN ADDITIONAL 4' OF AT & SF RR R.O.W.

MARMION WAY/MUSEUM DRIVE CROSS SECTION



4.8-1
 exhibit

FILMORE STREET STATION SECTION-LOOKING NORTH

Pasadena Light Rail Supplemental EIR

Michael Brandman Associates

exhibit
 4.8-1

Comment 2: It is noted in the SEIR (page 2-18) that appropriate engineering studies shall take place prior to commencement of construction of the Colorado Boulevard Subgrade to determine the capability of adjacent structures...to withstand the level of vibration anticipated from construction and operation of the proposed light rail system.

Response 2: Please see Section 6, Errata and Changes to the EIR. There have been revisions to Section 3.3.4, Grade Separations, of the SEIR to reflect that feasibility studies have been conducted for the grade separation. The preliminary engineering and feasibility study conducted for the proposed Colorado subgrade, determined that this configuration is feasible, given the criteria it must adhere to (i.e., avoidance of historic structures, safe foundation characteristics and structural properties).

Comment 3: Would ask that more information about the types of studies to be performed and by whom be included in the FEIR. In Pasadena, there are several crisis situations with older buildings that were supposedly shored and then "slipped" during the construction phase. The expense of shoring in the crisis situation is very expensive and causes costly delays.

Response 3: The EMC, an engineering consortium employed by the Rail Construction Corporation (RCC), a subsidiary of LACTC, prepared the Colorado subgrade feasibility study. Copies of this study are available upon request at LACTC.

Comment 4: The SEIR notes that "Engineering studies may conclude that this option should not be implemented due to adverse effects on existing structures." What exactly will happen if the buildings cannot be protected from vibration? The SEIR never answers that question.

Response 4: As discussed in the response to the commentor's earlier question, preliminary feasibility studies have been conducted for this grade separation and determined that this configuration is feasible, given the criteria it must adhere to (i.e., avoidance of historic structures, safe foundation characteristics and structural integrity). Please see Section 6, Errata and Changes to the EIR; there have been revisions to Section 3.3.4, Grade Separations. However, should later engineering studies indicate adverse vibration impacts to structures that cannot be mitigated, then this option would not be pursued.

Comment 5: It would be helpful if the FEIR more carefully described the plan for the Fillmore Street Station. What will be the design for the station, how will the parking lot be designed, how much land

will be needed for the entire station, how much private land will need to be acquired? Are there any historic buildings on the private land?

Response 5: As discussed in Section 3.3.3, Station locations, of the SEIR, the City of Pasadena has approved a station at the intersection of the AT&SF right-of-way and Fillmore Avenue, north of Glenarm Street, to serve Huntington Hospital. The station would consist of a center platform which would require the closing of Fillmore Street between Arroyo Parkway and Raymond Avenue.

Additionally, as discussed in Section 4.1, Land Use, LACTC has proposed properties adjacent to the westerly edge of alignment and south of the intersection for limited parking and other Light Rail Transit related services. The area is bounded by commercial and warehouse uses, some of which will be redeveloped near the time of this project's implementation. This station is not expected to impact adjacent uses.

Section 4.8, Aesthetics, of the SEIR describes the at-grade stations as maintaining 300-foot long platforms from which patrons would board the Light Rail Transit. These platforms will vary from 10 to 15 feet in width and will be approximately 3 feet high. A canopy fare vending machine, a closed circuit television (CCTV), and a phone will be located on the platform. Exhibit 4.8-1 illustrates a typical station cross section. As stated above, the final design plans have not been established. However, mitigation number 2 in Section 4.8.3 will ensure that the stations are designed to be attractive and nonintrusive on surrounding areas and will be sensitive to the surrounding community. Additionally, mitigation 3 indicates that community workshops will allow for community input during the design of stations.

Finally, as discussed in Section 4.9, Cultural Resources, of the SEIR, only the Cornfield Yard, Southwest Museum Station, and Colorado Boulevard Subgrade sites have the potential to affect cultural resources.

Comment 6: The same questions apply for the Allen Avenue Station. How will it be designed-how will passengers access the station? Where will the parking lots be located? Will there be a cost for parking lot use?

Response 6: The City of Pasadena has requested that a station at Allen Avenue (replacing the previously cleared stations at Hill and Altadena Avenue) be considered. Because the proposed Allen

Avenue station would be located within the AT&SF right of-way between east and westbound lanes of the I-210, land use compatibility, parking displacement, and taking impacts would not occur.

As with the Fillmore Street Station, the proposed Allen Avenue Station would maintain a 300-foot long platform from which patrons would board the Light Rail Transit. This platform would be between 10 to 15 feet in width and approximately 3 feet high. A canopy fare vending machine, a closed circuit television (CCTV), and a phone will be located on the platform. Exhibit 4.8-1 illustrates a typical station cross section. As stated above, the final design plans have not been established. Because the station will be located within the existing AT&SF right-of-way, no aesthetic impacts are expect. However, mitigation number 2 in Section 4.8.3 will ensure that the stations are designed to be attractive and nonintrusive on surrounding areas and will be sensitive to the surrounding community. Additionally, mitigation 3 indicates that community workshops will allow for community input during the design of stations.

Passengers will access the station from beneath the platform, off of Allen Avenue. Current engineering drawings indicate that the concrete slope area underneath the freeway overpass will be reconstructed into a bus loading and drop-off facility. Presently, facility designs do not provide for any automobile parking.

As discussed in Section 4.9, Cultural Resources, of the SEIR, only the Cornfield Yard, Southwest Museum Station, and Colorado Boulevard Subgrade sites have the potential to affect cultural resources.

Comment 7: The old Santa Fe Station on Del Mar and Raymond is listed on the National Register of Historic Places. There is no information as to the impact of the proposed project on this historic station. There are other buildings on the site also listed on the National Register. What are the impacts on those structures?

Response 7: Section 4.9 of the draft EIR, page 4-97, identifies the old Santa Fe Station as having historic significance. It is listed in Table 4.9-3 as "NR," a resource listed on the National Register of Historic Places. The "impact" of the LRT on this resource was discussed in the previously certified EIR and is not discussed further in this SEIR.

Comment 8: There is no real explanation as to the need for closing Holly Street. Holly Street is part of the Civic Center and a very important view corridor. Why must the street be closed? would it not be better to continue the tracks underground at that point to protect the Civic Center from another intrusion and to maintain intact the historic axis to the City Hall? What exactly is the design for the space which is now Holly Street and proposed closure.

Response 8: Please see Section 6, Errata and Changes to the EIR. The closure of Holly Street is being considered to provide the access necessary to maintain the present location of the proposed Memorial Park Station. The location of the proposed Memorial Park Station is on the north side of Holly Street adjacent to Memorial Park and the proposed Civic Center West Development. This station location is important in that it provides light rail access to the Pasadena Senior Citizen Center, Memorial Park and the proposed Civic Center West project. Because of engineering constraints and criteria related to grades, Holly Street must be closed off so that the LRT line can successfully meet the grade of the platform area and the underpass structure north of Walnut Avenue.

Comment 9: The information on historic resources is incomplete and contains misinformation. The Civic Center Historic District is one of the historic districts in the downtown area that is listed on the National Register of Historic Places. It includes Memorial Park, the Old Police Building, and other nearby buildings. The Civic Center Historic District was listed on the National Register of Historic Places in the early 1980s.

Response 9: The Santa Fe Station is on the National Register of Historic Places. Table 4.9-1 inadvertently designates this structure, as well as the Casablanca Fan Company, Fishbecks and Stats Floral, as HR (historical resource). Table 4.9-1 of the SEIR is hereby revised to identify these structures as having the Historical Significance classification of NR (National Register of Historic Places). While designation of these four resources was incorrect, potential impacts and mitigation were discussed for structures within or adjacent to the Old Pasadena National Register Historic District. Refer to mitigation measure #2, Section 4.5.3, page 4-73, of the Draft SEIR for mitigation measures specific to structures along the Colorado Avenue subgrade segment.

Of the four structures listed above, the Casablanca Fan Company is the only building on the City's Unreinforced Masonry list. As with those structures listed in Table 4.9-4, Significant Historic Structures with Unreinforced Masonry, there is the potential for adverse impacts from vibration during construction and operation.

Comment 10: In the mid 1980s the Old Pasadena Historic District was listed on the National Register and includes most of the buildings lining the tracks north of and including the Santa Fe Station to Walnut Street. Pasadena Heritage was responsible for nominating both of these historic districts and information about them is available for review in the office at 80 West Dayton Street in Pasadena.

Response 10: One of the purposes of the SEIR was to address the proposed subterranean construction and operation of the light rail system from Memorial Park Station south to Del Mar station. To assist in preparation of the SEIR, the City of Pasadena Urban Conservation Section prepared a list of the significant historic/cultural resources located along the light rail corridor. Those contained in the list included those structures which could possibly be affected by implementation of the project. The proposed light rail alignment lies within the western portion of the Civic Center Historic District. While the District, which is on the National Register of Historic Places, does contain significant historic structures, these structures are not adjacent to the proposed alignment, and are therefore, not anticipated to experience adverse impacts during construction or operation.

Comment 11: Pasadena Heritage has serious concerns about the impacts of the proposed light rail project on many historic buildings that line the route. The FEIR will need to include more complete information about those historic structures and possible impacts of the proposed project on each of the historic resources.

Response 11: The Rail Construction Corporation is completing engineering studies along the Colorado Boulevard subgrade. It is believed that the construction methods employed can avoid damage to adjacent buildings. However, as stated in the Draft EIR, if engineering studies demonstrate that significant impacts to historic structures would be realized, that this option would be dropped from further consideration.

Comment 12: Traffic counts that are available in the offices of Pasadena Heritage conflict with several of the traffic findings in the SEIR. In particular, the counts for the intersection of California and Arroyo Parkway, Glenarm and Arroyo Parkway, and Fair Oaks and Colorado Boulevard. The City of Pasadena maintains current information on those intersections so the traffic consultants should be directed to the City for more accurate information.

Response 12: Members of the consultant team visited the City of Pasadena to obtain the latest traffic counts they have on file. For the three intersections mentioned (California Boulevard and Arrow

Parkway, Glenarm Street and Arrow Parkway, and Fair Oaks Avenue and Colorado Boulevard), the City had no counts more recent than those used for the EIR. However, we found that another consulting firm had recently counted traffic at two of the intersections. One of the intersections, Glenarm Street and Arroyo Parkway, had less traffic in the more recent count than in the EIR count. This intersection was not reanalyzed.

The second intersection, California Boulevard and Arroyo Parkway, was found to have significantly higher traffic volumes than the volumes used in the EIR. A revised traffic analysis found that because of these higher existing volumes, more mitigation measures may be needed. The EIR and Supplemental EIR recommended widening the southbound approach to the intersection to provide for a right-turn lane. Both of these widenings may involve acquisition of property. Gasoline stations occupy the corners in question.

The second intersection, California Boulevard and Arroyo Parkway, was found to have significantly higher traffic volumes than the volumes used in the EIR. However, this more recent count includes traffic generated by some recently constructed projects which we anticipated would be built by the year 2010. These projects include new office buildings along Lake Avenue and elsewhere in Pasadena. As a result, the estimated future volumes are not much different from those used in the Supplemental EIR. The recommendations for this intersection are the same as contained in the Draft Supplemental EIR.

Comment 13: The information about the Pasadena-Los Angeles Rail Transit Project needs to be more thoroughly studied and documented for public review. There is mention of an earlier EIR but that study was never made available to Pasadena Heritage. We would be pleased to have an opportunity to review the document at this time.

Response 13: The Pasadena-Los Angeles Light Rail Transit EIR was certified in the spring of 1990. A copy may be obtained from LACTC. The LACTC will ensure that Pasadena Heritage is added to the mailing list for the project.

Comment 14: Pasadena Heritage requested a copy of the FEIR by letter on July 20, 1990. It was only by accident that we learned of the existence of the SEIR and were able to obtain a copy for our review. Please add Pasadena Heritage to the list of those receiving information about the proposed project, including the earlier EIR and the FEIR.

Response 14: The Pasadena Heritage will be added to the list of those requesting information on the draft and final SEIR.

Lincoln Heights Preservation Association - E. Michael Diaz, November 10, 1992

Comment 1: Every effort should be made to ensure a product that will benefit our community and beyond merely providing stations. Specifically, LACTC should look beyond transportation and think about land use and how it can be creatively developed to serve the communities which are being affected by this new rail line.

Response 1: Comment noted. The LACTC is currently developing a long-range land use and transportation policy in collaboration with the City of Los Angeles to establish a vision for linking land use and transit planning decisions within and adjacent to rail stations.

Comment 2: The Avenue 26 Station is strategically located and should become a major terminus with feeder bus lines and park-and-ride services. Additionally, some public monies should be used to establish joint mixed-use development which will address the needs of the surrounding communities. A coordinated vision of land use is needed which will provide transportation, as well as housing, cultural, education, and shopping, and business opportunities.

Response 2: Comment noted. LACTC will work with the local community to develop a site plan which is sensitive to the needs of the neighborhood.

Comment 3: The awkward street configuration at Marmion Way and Figueroa would result in a hazardous grade crossing. However, there is strong opposition to a flyover grade separation because of the negative visual impact that this would have on the surrounding neighborhood. A more thorough analysis should be made into the possibility of a depressed grade separation at this intersection. The following should be noted: (a) there is no plan nor apparent need for any other depressed sections along this line; and (b) Proposition A and C funds which are additional transportation revenues could be used to cover the added costs. The station and parking structures planned for Marmion Way and Figueroa should be constructed below grade and the existing park maintained to continue providing the neighborhood open, green space.

Response 3: A below-grade configuration at Marmion Way and Figueroa has been developed. While feasible from an engineering perspective, this option would severely impact traffic circulation during construction for a prolonged period of time. Major utility relocation would be necessary, as well.

Compared to the at-grade configuration analyzed in the previously certified EIR, the below-grade configuration would cost approximately \$38 million more.

Comment 4: Bus feeder lines should be integral to the Southwest Museum Station in order to provide service to the adjacent communities and the Southwest Museum, the Lummis Home, and the Casa de Adobe. However, priority here should be given to the local community transportation needs. Bringing audiences to local attractions should not be done at the sacrifice of service and convenience to local residents.

Response 4: LACTC will work with the Southern California Rapid Transit District (RTD) as it considers complementary bus service serving the Pasadena-Los Angeles line.

Comment 5: The use of Taylor Yard as a maintenance yard is unacceptable for three reasons:

1. This parcel is currently being studied for future development and a maintenance yard would be totally at odds with what is being considered.
2. A maintenance yard would necessitate the demolition of the former Lincoln Heights Jail building.
3. From a local community investment perspective, this is a scenario for instant diminishing return. Few jobs, youth services, educational, or cultural opportunities will be provided. What can be assured of is more congestion, visual blight, noise and toxic pollution.

Response 5: Section 4.1, Land Use, of the Draft SEIR, discusses future plans for Taylor Yard (also see Response to Los Angeles Community Redevelopment Agency (Rich Macies)). The Northeast Area Plan for the City of Los Angeles General Plan designates the Taylor Yard as "Heavy Industrial". This designation accommodates automobile parking (Zone "P") and heavy industry (Zone "M3"), including railroad repair shops. The light rail service and maintenance facilities proposed by LACTC are consistent with the provisions of the Northeast Area Plan and the requirements of the City of Los Angeles Planning Code. Additionally, Taylor Yard is currently used for diesel locomotive operations.

Section 4.1, Land Use, of the Draft SEIR, discussed impacts and mitigation related to the former Lincoln Heights Jail building. Demolition of this structure may result from development of the Burbank-Glendale-Los Angeles line, and possibly from the Pasadena-Los Angeles line should Taylor Yard be selected as the preferred alternative for a vehicle storage and maintenance yard. Mitigation

of the demolition will include assistance with relocation of organizations located in the building and compensation to the City for acquisition of real property.

Please see Sections 4.1 (Land Use), 4.2 (Transportation and Circulation), 4.4 (Air Quality), 4.7 (Risk of Upset/Health and Safety), 4.8 (Aesthetics), and 4.9 (Cultural Resources) of the Draft SEIR. With implementation of the mitigation measures outlined in the SEIR, impacts associated with a maintenance facility at Taylor Yard will be reduced to a level considered less than significant.

Mount Washington Association - Louis Mraz, Mimi Smith, Pat Samson, Luicille Lemmon, Rosemary Brani, Scott Burleigh, Clare Marter Kenyon, Lynette Kampe, Laura Knowles, Jesse Simon

Comment 1: A station adjacent to the Southwest Museum or shuttle connectors to a nearby station will improve public access to this important cultural landmark.

Response 1: Comment noted. As discussed on page 4-11 of the Draft SEIR, the proposed Southwest Museum Station would be located only 100 feet from the Museum entrance access ramp. Thus museum patrons would benefit from increased accessibility.

Comment 2 Opposes a flyover grade separation at the intersection of Figueroa/Marmion Way due to the visual impacts and limit the potential revitalization at the intersection. The visual impacts would be impossible to mitigate. Promotes a below grade separation (open trench grade separation) at the intersection of Figueroa/Marmion Way. A below grade separation will minimize environmental impacts to the neighborhood. No authority has presented any compelling reason why a below grade separation is not worth studying; a meaningful discussion of this option is possible only after engineers have estimated a cost.

Response 2: A below-grade configuration would severely impact traffic circulation during construction for a prolonged period of time. Major utility relocation would be necessary, as well. Compared to the at-grade configuration analyzed in the previously certified EIR, the below-grade configuration would add approximately \$38 million to the project's budget.

Comment 3: The LACTC should consider the addition of a station nearby or south of the intersection of Figueroa/Marmion Way, in Lincoln Heights.

Response 3: A station just north of the intersection of Figueroa/Marmion Way was included in the previously certified (1990) EIR. The draft SEIR does analyze a southern alternative to the Figueroa/Marmion Way station, as well as a northern option and aerial option. Other than this station location the next station south of Figueroa/Marmion Way is Avenue 26 as indicated in the previously (1990) certified EIR.

Comment 4: Support the usage of Proposition A or Proposition C funding to supplement LACTC's costs in studying and building the below grade separation at the intersection of Figueroa/Marmion

Way. The Mt. Washington Association will work with Councilman Hernandez' office to explore the possibility of using the City of Los Angeles' discretionary transportation funding to cover a portion of the engineering and construction costs of this below grade separation.

Response 4: Comment noted.

Comment 5: Supports the Cornfield option for the LRT Maintenance Yard as long as LACTC mitigates any objection by Chinatown's residents.

Response 5: Comment noted. LACTC took public testimony at a public hearing held on October 15, 1992 in the Chinatown community. The public comments given at this hearing and responses can be found in Section 4, Responses to Public Testimony Received in Public Hearings, of this Final SEIR. Additionally, the LACTC will continue to work closely with the community during all phases of project implementation.

Comment 6: Oppose the use of parcels in the Taylor yard for the LRT Maintenance Yard; the adjacent communities are currently studying how best to develop this area. Taylor Yard already has an overabundance of poorly sited maintenance facilities.

Response 6: Comment noted.

Highland Park Heritage Trust - Bob Ebinger, October 10, 1992

Comment 1: The Highland Park Heritage Trust supports the Mount Washington Association in their opposition to the proposed flyover separation at Figueroa and Marmion Way. In a previous letter (July 22, 1992), the Highland Park Heritage Trust stated a concern regarding this grade separation and hoped that the scale and design would be sensitive to the surrounding neighborhood. However, after viewing the flyovers in the Long Beach Line we are adamantly against such a massive edifice at this location.

Response 1: The SEIR recognizes that the proposed aerial structures for the grade separation at Figueroa and Marmion Way will have a significant unavoidable adverse visual impact. The proposed mitigation measures, along with attractive and nonintrusive station designs, community workshops, landscaping, and an arts program, will be partially effective in reducing visual impacts. Partial mitigation of aerial structures is possible through attractive and community-sensitive architectural design treatment.

Comment 2: The intersection of Figueroa and Marmion Way is the gateway to lower Highland Park/Mt Washington. The surrounding area is historic. Much of this area as well as Highland Park to the north will soon be part of a Historic Preservation Overlay Zone. What is needed at this intersection is some positive visual statement extolling the neighborhood. A 1.5 mile barrier dividing this area is not needed. The proposed flyover is a visual and environmental pollution.

Response 2: As stated above, the SEIR presents mitigation measures (attractive and nonintrusive station designs, community workshops, landscaping, and an arts program) that will be effective in reducing visual impacts of the proposed aerial structures. Partial mitigation of aerial structures is possible through attractive and community-sensitive architectural design treatment.

Comment 3: The Highland Park Heritage Trust supports a below grade separation for the intersection of Figueroa and Marmion Way. LACTC has stated that this type of construction would disrupt commerce and traffic more than above grade construction. However, LACTC will weigh the inconvenience in the short-term with the irreparable damage done by the erection of this formidable barrier.

Response 3: Comment noted.

Comment 4: The Highland Park Heritage Trust supports the Cornfield Option for the maintenance yard and the Southwest Museum station. However, this station must be in addition to the other stations. We can not sacrifice any stations (Avenue 26, Figueroa/Marmion Way, and Avenue 51) to construct the Museum station.

Response 4: Inclusion of the Southwest Museum Station in the adopted project would not necessarily result in the deletion of the previously adopted station at either Marmion and Figueroa or Avenue 51. However, a Southwest Museum Station would result in close station spacing which would impact the line's operation. The Southwest Museum and Avenue 51 stations would be less than 2,000 feet apart and the Southwest Museum Station and Figueroa/Marmion station(s) would be approximately 3,500 feet apart.

Comment 5: The Highland Park Heritage Trust supports the linkage of this light rail line with the Glendale Line at one of the stations near downtown.

Response 5: Comment noted.

Comment 6: The traction power sub-station at Avenue 61 should be placed on the abandoned Union Pacific right-of-way to the north of the Santa Fe Line. This location would avoid the demolition of any housing stock.

Response 6: LACTC has considered the impacts to residents and is pursuing the relocation of this TPSS to the abandoned Union Pacific right-of-way to the north of the Santa Fe right-of-way.

Madison Heights Neighborhood Association - Betsy Blue, November 11, 1990

Comment 1: The Madison Heights Neighborhood Association (MHNA) feels that grade separation is necessary for a successful light rail - from Glenarm all the way to the 210 freeway. Our special concern is that it will never be possible to rebuild the line with grade separation if we discover 30 years from now that grade separation is necessary to avoid gridlock.

Response 1: The EIR on the light rail alignment was certified, and the route was approved in 1990. This earlier EIR stated that the advantage of the LRT is to be at grade except where it will severely interfere with traffic. A multitude of traffic analyses based on future growth and feasibility studies were conducted to determine the areas where interference would be greatest and a grade separation necessary. It should be noted that the purpose of the LRT is to remove a percentage of the vehicles on the road, thus reducing "gridlock." The EIR concluded that the rail line would not require grade separations at grade crossings to mitigate impacts.

Comment 2: Transportation planners in Pasadena have stated that grade separations were requested for only a few intersections (Green, Colorado, and Union) because they knew that this metro line would be too costly to be authorized and funded.

Response 2: As stated above, the previously certified EIR stated that the LRT typically is at grade except where it will severely interfere with traffic. There are no additional grade separated structures proposed. The certified EIR cleared the LRT to be at grade along the entire alignment. The grade separation in the vicinity of Colorado Boulevard is being considered at the request of the City of Pasadena.

Comment 3: With Clinton's election and the rejection of Proposition #156, we anticipate that LACTC is going to be rethinking transit plans and finding new funding. This is a window of opportunity for the LACTC to ask for a grade separation from Glenarm to the 210 Freeway.

Response 3: Please refer to comments 1 and 2.

Comment 4: MHNA predicts that the LRT will create gridlock at each of the intersections of Arroyo Parkway. Without grade separation at the intersection of Glenarm and Arroyo, the entrance to the Pasadena Freeway, with present average daily traffic of 43,000 cars will be gridlocked at rush hours

in 20 to 30 years. This is taking into account increased density of development envisioned in the General Plan and light rail trains arriving at 4 minute intervals with 45 seconds of gate-down time. If this occurs, drivers will opt for residential streets rather than the freeway.

Response 4: Please note, that the SEIR evaluates modifications to approved light rail alignment. These modifications include the three station sites (Southwest Museum, Allen Avenue, and Fillmore Street), three maintenance yard sites (Taylor Yard, Cornfield, and West Bank), and two grade separations (Colorado Boulevard and Figueroa/Marmion Way). The alignment through the intersection of Glenarm Street and Arroyo Parkway has been previously approved, but traffic operations at the intersection were reanalyzed for this SEIR because of the relocation of the station from Glenarm Street to Fillmore Street. The intersection is expected to be oversaturated by the year 2010 under "No Build" conditions. Construction of the LRT with a station at either Glenarm Street or Fillmore Street may further impact the intersection. The recommended mitigation measure is to add a right-turn lane for northbound traffic. This provides more capacity for traffic exiting the Pasadena Freeway.

Comment 5: Without grade separation, the intersection of Del Mar and Arroyo will be gridlocked at rush hours with light rail every 4 minutes, the traffic of the transportation center, and the targeted traffic of Del Mar as an east-west mobility corridor. Can multiple examples of similar actual situations, not just computer simulations be sited to assure us that light rail can work without gridlock at these two intersections.

Response 5: The computer models utilized for the analysis are recognized by the local and state agencies as standard predictive tools and are widely accepted. Please note, that the SEIR does not evaluate modifications to the approved light rail alignment; the alignment through these intersections on Arroyo Parkway have been previously approved and are not a part of the analysis for this SEIR.

Comment 6: The lack of grade separations and gridlock on Arroyo Parkway will also result in safety issues. We are concerned that the paramedics will lose vital minutes getting to our neighborhood and returning to the Huntington Hospital. As part of the SEIR, LACTC should work with the hospital to determine how many cases would be affected each year by those extra minutes to the emergency room.

Response 6: Section 4-10 (page 4-120) of the project's Final EIR, certified in 1990, explores the impacts the light rail project would have on emergency services. The LACTC will meet with local emergency service providers in order to integrate emergency access provision into the light rail project's design, and to mitigate any impacts on emergency service response times which may be caused by the rail line.

Comment 7: Police and Fire Department response times are equally affected by grade separation. Please coordinate with the Police and Fire Departments to determine the impacts to response time without grade separation.

Response 7: Please refer to Response to Comment 6.

Comment 8: Grade separation will eliminate much of the noise pollution associated with light rail. The Long Beach line is accompanied by loud warning whistles at each intersection which represents a lot of noise pollution for near neighbors.

Response 8: Please see section 4.6, Noise and Vibration, of the previously certified Draft EIR. This section notes that some noise impacts along the alignment will remain after mitigation, though these impacts will not be significant.

Comment 9: The Fillmore Station should be fully integrated into the workings of Huntington Hospital to encourage ridership. Fillmore Station needs to be made a safe place for women to be 24-hours a day. A park-like strip is envisioned for hospital staff, 2 blocks long, from the eastern part of the hospital to the station. European Square - with trees, lighting, benches, small neighborhood commercial shops, cafes, dry cleaners, corner grocery, video store, etc. should be provided. In addition, multi-family apartment buildings, with day care, teen center, senior center - run by the hospital and their staff should be provided. A metro station without this sort of Hospital staff housing, and on-going activity would be deserted at night and generally less successful.

Response 9: Comment noted and will be forwarded to the City of Pasadena which is responsible for land use decisions.

Comment 10: The Fillmore Station is designated to have about 80 parking spaces. Parking should not be expanded beyond this. There is a concern regarding increased traffic through our neighborhood as San Marino residents use the parking facilities. Circulating minibuses along Glenarm and down to the Huntington Hotel would be preferred - to encourage people to leave their cars in their driveways. Also, careful design the "kiss and ride" traffic flow will be important at Fillmore Street and Del Mar, given the potential for gridlock.

Response 10: Comment noted.

Mt. Washington Preschool & Child Care Center - Carol Siu, November 10, 1992

Comment 1: The Mt. Washington Preschool and Child Care Center would like to state its support for the proposed light rail station or shuttle stop serving the Southwest Museum. This stop would serve the needs of the whole community. It would provide a site for public transportation-linked child care center. Such a stop would also serve the other surrounding historical centers, providing a complete community node for currently under-used museums, including Casa de Adobe and the Lummis House.

Response 1: Comment noted.

Comment 2: The Zeigler House, a historical monument previously owned by the Southwest Museum and directly opposite the light rail station, has been identified for a child care center. With Councilman Alatorre's help and much community support, it was purchased by the City last June. The Mt Washington Preschool believes that this proposed child care center is so far the only potential child care site adjacent to the light rail systems in the inner city. This makes the mixed use potential of this site between transportation and child care all the more compelling. Councilman Mike Hernandez also supports this ability to serve the community and increase use of the light rail system. With your help, this could be a very exciting model project, proving that a combination of child care and convenient public transportation can lead to safer, more child friendly neighborhoods.

Response 2: Comment noted.

Brian D. Hyman, November 2, 1992 (included in letter from Pasadena)

Comment 1: With regards to the proposed subgrade modifications between Del Mar and Colorado Boulevards, the Draft SEIR provides an incomplete analysis of the impacts of vibration on nearby historic structures. The report fails to consider what would become serious implications if these structures are unable to withstand the anticipated levels of vibration caused by subgrade construction and rail operations.

Response 1: Please see Section 6, Errata and Changes to the EIR. There have been revisions to Section 3.3.4, Grade Separations, of the SEIR to reflect that feasibility studies have been conducted for the grade separation. The preliminary engineering and feasibility study conducted for the proposed Colorado subgrade, determined that this configuration is feasible, given the criteria it must adhere to (i.e., avoidance of historic structures, safe foundation characteristics and structural properties).

Comment 2: Section 4.9 of the SEIR states that engineering studies shall take place prior to starting subgrade construction to determine whether nearby buildings are able to withstand anticipated vibration levels. However, just prior to construction, subgrade alignment is or is not feasible. If subgrade were found at that point to be unsuitable, an untenable situation would be placed on the City and the LACTC. Short of drastically modifying the alignment or canceling the project altogether - both of which would be extremely costly - proceeding at-grade would likely stand as one of two remaining options, the other being demolition of historic structures. Clearly, neither of these is acceptable. Further analysis should be undertaken now to better identify the tolerances of the buildings. Additional mitigation measures could also be identified through additional analysis.

Response 2: Please see Section 6, Errata and Changes to the EIR. There have been revisions to Section 3.3.4, Grade Separations, of the SEIR to reflect that feasibility studies have been conducted for the grade separation. The preliminary engineering and feasibility study conducted for the proposed Colorado subgrade, determined that this configuration is feasible, given the criteria it must adhere to (i.e., avoidance of historic structures, safe foundation characteristics and structural properties).

**Gerald D. Lehmer, President
Gerald Lehmer Associates, Civil and Structural Engineers**

Comment 1: The SEIR only deals with construction methods and impacts in a general way. However, mention is made of a feasibility study which is still in progress. I would appreciate the opportunity to review the feasibility study in more detail to determine if adequate provision is being taken to protect historic buildings and related foundation impacts, noise and vibrations (page 4-36).

Response 1: The construction and design plans have not yet been finalized. However, the document does address environmental impacts under worse case scenarios. The feasibility study is available from LACTC upon request.

Comment 2: The use of secant piles may not be the most economical method of retaining soils adjacent to the old buildings. Direct underpinning and the use of more conventional shoring and tie-back anchors may perform better and be a more positive method of supporting the existing foundations.

Response 2: Preliminary engineering studies indicate that more conventional shoring methods could effectively support some of the potentially impacted foundations. These methods will be used where feasible.

Comment 3: A more detailed study should be made regarding the construction on all three street separations so that negative impacts can be reduced. Consideration should be given to having either Green of Union Street and half of Colorado Street open at all times during construction.

Response 3: A detailed feasibility study has recently been completed for the Colorado Boulevard subgrade. A copy of this study is available at the LACTC. No other street separations within the City of Pasadena are being considered. It is contemplated that construction of the subgrade would result in temporary street closures at Green Street, Colorado Boulevard, and Union Street. During closure of any one of these roadways, all east-west streets will be maintained at full capacity

Stefan Reed (private citizen), October 20, 1992

Comment 1: Recommends a flyover grade separation at Figueroa and York Boulevards. Although it costs more, the traffic signals at Figueroa and York Boulevards will need to be synchronized with the light rail train grade crossing signal and gates for traffic to go ahead for York Boulevard corridor and stop light for Figueroa Street corridor there at the grade crossing.

Response 1: Comment noted.

Comment 2: Prefers the Cornfield and Taylor Yard sites for maintenance yards because they are located away from busy intersections.

Response 2: Comment noted.

Comment 3: The Alameda freight corridor project can handle 70-75 trains a day. The Cornfield vicinity is somewhat offset from the right-of-way which LACTC has purchased from the freight rail companies. This site is suited for land use revision an expansion, now.

Response 3: Comment noted.

Comment 4: The 58 plus acres acquirable in a first phase; the area between Alpine/Vignes to Los Angeles/Riverside.

Response 4: Comment noted.

Comment 5: A problem with the Cornfield Yard is its capacity, if it is to be the maintenance yard for the blueline north and the Glendale, later the Sylmar line. You should consider use of the Cornfield site to support the tri-cities line rail vehicles. It is not needed for a Burbank nor Glendale, nor Pasadena site A&A maintenance yard.

Response 5: Comment noted.

Comment 6: Southern Pacific/Rio Grande/Cotton Belt and you can expand the Taylor Yard roundhouse locomotive maintenance site to share with the metrolink equipment maintenance.

Response 6: Comment noted.

Comment 7: Both the Cornfield and Taylor properties have the potential to be multi-use. They can be used for railcar building and testing, residences for employees and police, storage and routine check of equipment including control center position. Much land is under used in the area.

Response 7: Comment noted.

Comment 8: Because traffic impacts, the increase in land use density, the blue line connector route not yet selected, and not all metrolink lines are in service - the Macy Street overpass at Broadway, Spring, Main, and Alameda Streets should be used for traffic mitigation. Otherwise, LACTC needs to coordinate with Chinatown business people for Spring Street to be connected between Sunset/Macy and Alameda/College. Some street portions will be eliminated for needed and better land space and landscaped uses. Some T.O.P.S. classes, employee training, and public education or meeting can also be accommodated on the Cornfield site.

Response 8: Comment noted.

Comment 9: In Pasadena Central, the Fair Oaks corridor and the Arroyo Seco corridor can be a one-way couplet from California or Glenarm to Colorado or Walnut. This is also needed for land use changes in Central Pasadena. The Fair Oaks and Arroyo Seco corridors need to be realigned between the 110 and 210 Freeways to increase the use of land. The public would have to be educated and the zoning appealed and revised, now. If Fair Oaks could be aligned to the west and Arroyo Seco could be realigned to the east which is possible, that would do the spacing. It would add significantly to joint development.

Response 9: Comment noted.

Comment 10: No one wants to finance the recession of the 110 Freeway from the AT&SF overpass to the 210 Freeway - this can be tunneled. Air rights would not be required.

Response 10: Comment noted.

Stefan Reed (private citizen), October 28, 1992

Comment 1: Should consider the old P.C.C. site Pico/Figueroa for a new maintenance yard.

Response 1: Comment noted. Several potential maintenance yard sites were considered in route refinement and planning studies and in the previously certified EIR. Please refer to Section 3.3-2 of the draft EIR, Siting Criteria. A search for vacant or underused property was conducted adjacent to the Pasadena-Los Angeles line. The alternative sites analyzed in the SEIR reflect the most viable options.

Comment 2: Taylor Yard is the wrong place for coordination in downtown's expansion; however, the Cornfield property is expandable. The concept is not visionally of limitation as solely industrial use.

Response 2: Section 4.1 (Land Use) discusses a community participation planning process in which LACTC is soliciting ideas for alternative development scenarios. The product from this process will be incorporated into the joint development concepts developed for the vehicle storage and maintenance facility.

Comment 3: The Taylor Yard has the potential to be a tourist attraction, but it doesn't have to be. The Cornfield property has enough acreage, including expandable acreage, to accommodate light rail vehicles from four lines or three and one-half lines: Blue Line North, Blue Line Glendale, later Burbank, Tri-Cities line, San Gabriel Valley line. Land in both Sylmar and West border from Irwindale can be used for backup or future maintenance sites for the blueline and extensions even if extensions are not confirmed.

Response 3: Comment noted.

Comment 4: Implement the "Wye" connector, the Taylor Yard Wye Connector, and use Avenue 19.

Response 4: Comment noted.

Comment 5: Vacate both Holly Street and Fillmore street. The County has excess portion of the streets.

Response 5: Comment noted. Please see Section 6, Errata and Changes to the EIR. There is an modification to Section 4.1, Land Use, of the Draft EIR regarding Holly Street.

Comment 6: The residents of Pasadena are concerned, but should admit to the changes needed for the Colorado Boulevard grade separation.

Response 6: Comment noted.

Comment 7: Would it be cost effective to design an area in north downtown Los Angeles to treat and channel groundwater? Liquefaction can be limited, the groundwater reclaimed, retreated to be used for watering landscaping at stations or trees planted along electric city or regional bus lines.

Response 7: As discussed in Section 4.7, Risk of Upset/Health and Safety of the Draft SEIR, the contaminated soil and groundwater beneath the proposed maintenance yard will be remediated prior to construction. It is standard practice to return the treated water to the groundwater table. Liquefaction can occur over a limited area and its potential for occurrence can be minimized through measures such as soil densification.

Comment 8: Cornfield Yard can maintain more than 75 vehicles by removing the buildings along north Spring Street near the Los Angeles River. Also, the North Spring Corridor can be elevated from the bridge at the Los Angeles River to a point between College Avenue and Alpine/Vignes Streets. College Avenue can be either shortened to a few feet from North Broadway or elevated to intersect the North Spring overpass. The North Spring overpass could potentially have reversible one-way travel lanes; that the area is outdated.

Response 8: Comment noted.

Comment 9: Placing the maintenance yard at Cornfield Yard would allow for more privacy or exclusivity. The College Avenue elevation would allow expansion for Cornfield property, south, to Alpine Street/Vignes Streets.

Response 9: Comment noted.

Comment 10: Nearly 6,000 vehicles, possibly 5,600, can be removed from heavy travel loads with implementation of blue line north-east extension.

Response 10: Comment noted.

Comment 11: LACTC should place police at each grade crossing from the East Pasadena extension.

Response 11: The Notice of Preparation and Initial Study for the SEIR found the potential impacts to Police Services to be not significant. Thus, they are not included in this environmental analysis.

Comment 12: For phase two and three of the light rail and maintenance expansion, including the LACTC purchased Taylor Yard property, use it for Glendale (Pacoima) and Tri-Cities lines. Soundwalls would need to be erected.

Response 12: Many operational factors must be considered for future needs depending on timing and selection of future lines. Future needs assessment and corresponding environmental analysis will be performed in relation to proposed new lines.

Comment 13: A tank can be installed on Taylor Yard property for harnessing methane gas. Oil rising from below can be separated from water and piped away. It could be also retreated and otherwise used efficiently.

Response 13: The quantity of the oil and solvents contained in the soil and groundwater beneath the Taylor Yard site (expressed in parts per million) is, in terms of economic value, limited. Additionally, because it is refined oils and solvents, the potential for harnessing methane is limited. It is standard practice to return the treated water to the groundwater table.

Comment 14: The parking areas should be double decked and, in a few cases, tri-decked which will provide additional open space. This is room for landscaping.

Response 14: Parking structures are generally not proposed due to funding considerations.

Comment 15: LACTC can relocate the old steam mill from Cornfield Yard.

Response 15: Because the Cornfield Site is a cultural landmark (# 82), preservation of any at-grade resources is the preferable action, and would be undertaken to the maximum extent feasible.

Comment 16: Rather than Cornfield property, the newer Senior High School should be sited at the "North Main Street" property between the Southern Pacific/Denver-Rio Grande bullring tracks and North Main Street east bank from Los Angeles River to I-5. This property north from the old truck terminal along North Main Street can be used for building new rail cars. The school could be built, elevated, above part of Cornfield Yard to increase the use of the land area with some transit vehicles parked underneath it.

Response 16: School siting and environmental review activities are the responsibility of the LAUSD. The LAUSD has not made final determinations as to the placement of new facilities in the area.

Comment 17: The North Main corridor is better. Also, the street is planned for a grade separation at Los Angeles River sides. Part of North Main can be realigned between east bank Los Angeles River and the SP tracks to the Interstate 5 and Griffith Avenue. The School District must be notified.

Response 17: Comment noted. The LACTC approved the Highland Park corridor in 1990, discontinuing consideration of the North Main Street Option.

Comment 18: The old Santa Fe rail station will provide a better east terminus then for Arcadia to extend into Azusa.

Response 18: Comment noted.

Comment 19: Metrolink cars can be stored on the "West Bank" maintenance location option soon. Also, the available area can be increased by storing the train cars underneath the possibly buildable land uses on West Bank area near Macy Street.

Response 19: Metrolink operations and facilities are not part of the Pasadena-Los Angeles Light Rail Transit Project. Comments regarding Metrolink may be addressed to Metrolink at 818 West 7th Street, Los Angeles, California.

Comment 20: The property along the 101 Freeway opposite the Union Station area along Commercial Street can be purchased and used as another maintenance site. The Alameda Street off ramp from the south bound 101 can be relocated or redesigned. Another site is the West Bank Los Angeles River at Fourth Street, south, from the red line yard, north, from Fourth Street (possibly closing Merrick). This option would be easily coordinated, designed, and connected with the RTD maintenance site along Temple Street. Common Street can be eliminated. It can add to needed Union Station area redevelopment. Traffic off ramping from the southbound 101 can detour to Temple Street and to Vignes Street. Additionally, the Arcadia location can be sited for the 30 year budget implementation program.

Response 20: Comment noted. Several potential maintenance sites were considered in earlier route refinement and planning studies. The Taylor Yard, West Bank option, and Cornfield yard were selected for analysis for a variety of reasons including access, right-of-way, configuration, land use compatibility, and minimal potential displacements. A search for vacant or underused property was conducted adjacent to the Pasadena-Los Angeles line. The alternative sites analyzed in the Draft SEIR reflect the most viable options.

Comment 21: The old Santa Fe Station (Del Mar Station) property and vicinity could be used. This is more timely and better than Sierra Madre Villa/210 in effectiveness.

Response 21: While a phasing option considered the Del Mar Station as an interim terminus, the City of Pasadena strongly prefers the adopted terminus at Sierra Madre Villa. The ability to provide direct access from I-210 allows traffic from points east to be diverted before reaching downtown Pasadena.

Lynnette Kampe (Mount Washington Association; 4232 Glenwood Avenue, LA 90065)

Comment 1: Would like to hear about the below-grade option.

Response 1: A below-grade option can be constructed, but at a far greater cost than an aerial or at-grade option. Compared to the at-grade configuration analyzed in the previously certified EIR, a below grade configuration has been estimated to cost approximately \$38 million above the cost of the at-grade option.

Comment 2: Will shuttle service be available, especially if some stations are eliminated?

Response 2: LACTC will coordinate with the SCRTD and other local transit agencies to provide bus line connections and shuttle service to stations. No previously cleared stations in the area of Mount Washington are to be eliminated from further consideration.

Comment 3: Avenue 42 would be the most convenient station location for many Mount Washington residents.

Response 3: Comment noted. The Project Description identifies a station near Avenue 42 as an alternative to the aerial or southern alternative for the station at Figueroa/Marmion Way. However, selection of this station would not provide for the desired station spacing between the Southwest Museum Station and Avenue 42.

Comment 4: What can be done to reduce graffiti on above grade structures?

Response 4: The SEIR incorporates design mitigation measures that would feature mural art from local artists. It is anticipated that the incorporation of community art will reduce the potential for graffiti. Security provided at station locations will serve as an additional deterrent.

Luis Hernandez, November 1, 1992 (resident 200 East Ave 38 90031)

Comment 1: Protest the development of the Metro terminal due to parking and over crowded population.

Response 1: Comment noted.

Mario Hernandez, November 1, 1992 (202 East Avenue 38 90031)

Comment 1: Protest the development of the Metro terminal due to parking and over crowded population.

Response 1: Comment noted.

Olga P. Asredondo, November 7, 1992 (M.A.S.H. Loreto; 3625 Marmion Way 90065)

Comment 1: Concerned about the bridge that is going to be in construction along Marmion Way, where are the workers going to park while they are working? If the residents leave, will there be any parking when they return?

Response 1: The SEIR explores the possible development of a park-and-ride facility at the intersection of Pasadena and French avenues in conjunction with the southern station alternative. This facility is discussed in Section 3, Project Description, of the SEIR. It is possible that construction of the park-and-ride facility could proceed ahead of the alignment construction. LACTC will develop a plan for construction staging and parking to minimize potential impacts along Marmion Way.

Comment 2: I am opposed to the City plans installing parking meters on our street; this will cost us residents money.

Response 2: The installation of parking meters is not a part of this project.

Comment 3: How about all the noise, vibration, etc.?

Response 3: Please see the appropriate sections of the SEIR (Section 4.5, page 4-58).

Comment 4: If there is any damage to the local residents from construction and operation of the LRT, is LACTC willing to pay for the damages?

Response 4: As discussed in the SEIR and Draft EIR (1990), residences are not expected to be damaged during construction or operation of the LRT. Residents seeking to levy damage claims must go through the proper authorities. Both construction contractors and LACTC are required to carry insurance to cover any damages to local residents from construction activities or operations.

Comment 5: If parking is not provided for the metrolink, I am opposed to this project. But it seems that nobody cares about it because in our community most of us are concerned about this matter.

Response 5: Comment noted. The proposed project includes light rail transit facilities and as such Metrolink facilities are not part of this project.

Mr. and Mrs. Joe Rivera, November 8, 1992 (3353 Jeffries Avenue 90065)

Comment 1: Suggest that you do whatever you can about parking accommodations.

Response 1: Please see Section 4.2.2 of the SEIR for a discussion of parking.

Antonio Longoria, October 29, 1992 (Loreto Mash 123 East Ave 37 90031)

Comment 1: Oppose the construction of the station at Marmion Way and Figueroa Street. Implementation of this station will increase transient and traffic, no parking is shown in any of the exhibits. Most of our neighbors feel the same way.

Response 1: Implementation of any stations will result in some increase in local traffic. However, the overall goal of the Light Rail Transit Project is to decrease regional trips. Therefore, any increase in local congestion in the vicinity of the station should be a result of area residents patroning the light rail. A park-and-ride option is indicated for the Figueroa/Marmion southern alternative, see Exhibit 3.3-10 of the draft SEIR.

Esther and Rene Rascon November 4, 1992 (Loreto Mash, 127 East Avenue 37 90031)

Comment 1: Oppose a station at Marmion Way and Figueroa Street. There is an existing traffic and parking problem and the plans to-date do not show any plans for extra parking. This will create a big problem by increasing traffic and transients. A parking area needs to be provided.

Response 1: Refer to Response to Comment 1, Antonio Longoria, October 29, 1992.

Gabriel Lopez November 4, 1992 (3908 Midland Street 90031)

Comment 1: The metroline station proposed for the intersection of Marmion Way and Figueroa Street will cause additional traffic problems in the area. There are three streets that meet at this intersection now, this causes traffic delays. The station location should be on Marmion and near Avenue 50. The station would work at a less busier intersection.

Response 1: LACTC plans stations so as to provide maximum accessibility to those persons that would use the LRT as an alternative form of transportation. Based on the spacing of stations from Pasadena to Los Angeles, it seems reasonable that there would be a number of people from the Lincoln Heights and Mt. Washington area that would use a station in the area. Additionally, this station location is near the confluence of three major community collector streets (Pasadena Avenue, Marmion Way, and Figueroa Street). The Commission believes that placing a station at Marmion Way and Figueroa Street would provide the most access to the greatest number of area residents. Impacts of the station are addressed in Section 4, Environmental Impacts Analysis, of the SEIR.

Juan D. Martiez, Jr., November 7, 1992 (3621 3/4 Marmion Way)

Comment 1: Parking situation, loitering, increased crime, and the traffic situation in our neighborhood.

Response 1: Comment noted. Please see the Environmental Impacts Analysis provided in Section 4 of the SEIR.

Rosa Tirado, November 6, 1992 (MASH 3575 Arroyo Seco Avenue 90065)

Comment 1: How will the LRT affect parking in our neighborhood? Metered parking?

Response 1: Please refer to the discussion on displacements related to parking and access on pages 4-13 through 4-16 and of the 1990 Draft EIR. No metered parking is proposed as part of the project at this time.

Comment 2: Where will the metro be located?

Response 2: Please see the Project Description provided in Section 3 of the SEIR for a discussion of proposed projects.

Gil Gildardo, October 28 (Loreto MASH, 201 East Avenue 38 90031)

Comment 1: Oppose the construction of a metro station on Marmion Way and Figueroa because it would increase traffic.

Response 1: Please refer to pages 3-10 through 3-15 of the 1990 Draft EIR for a discussion of station siting. Also refer to Response to Comment 1, Pasadena Heritage. Implementation of any station will result in some increase in local traffic. However, the overall goal of the Light Rail Transit Project is to decrease regional trips. Therefore, any increase in local congestion in the vicinity of the station should be a result of area residents patroning the light rail. Construction of an aerial guideway for the LRT over the intersection of Marmion Way, Figueroa Street, and Pasadena Avenue may require the temporary closure of lanes, or occasionally entire roadways during construction, which would result in temporary, but significant impacts to existing traffic conditions. To mitigate this impact, closure of lanes and/or entire roadways will be avoided during peak commute hours of 6 a.m. to 9 a.m. and 5 p.m. to 6 p.m.

Comment 2: I oppose the project because of three nearby stations; there should only be two.

Response 2: All of the stations proposed in the SEIR are alternatives to the project analyzed in the certified EIR. All of these components may be implemented, they are provided to allow the Commission the opportunity to make the best decision with the maximum of available alternatives.

Adolph A. Calvillo, October 30, 1992 (208 East Avenue 38)

Comment 1: A parking area should be provided so cars can go in and out by paying a token and avoid running around the neighborhood looking for parking spaces.

Response 1: Comment noted.

Anita Caluillo, October 31, 1992 (208 East Avenue 38)

Comment 1: Are parking facilities provided for the commuters using the LRT?

Response 1: Please see the Project Description provided in Section 3 of the SEIR. Also refer to Table 3-2 of the 1990 Draft EIR for a summary of short- and long-term parking facility locations.

Comment 2: Placing parking meters on the side streets in front of our homes will add to the traffic problem. Most household have 2 or 3 cars without private parking.

Response 2: No parking meters are proposed as part of the project.

Comment 3: Some are tenants so that would reduce our parking space. Plus, more noise, mess that is dumped from cars when they clean their ash trays.

Response 3: Comment noted. Please see the environmental impacts analysis provided in Section 4.2.2 of the SEIR.

M. Loera, October 25, 1992 (143 East Avenue 37)

Comment 1: Oppose the Figueroa/Marmion Way Station. It will create additional traffic, and most of all, it will rob the neighborhood of our already limited parking spaces.

Response 1: Implementation of any stations will result in some increase in local traffic. However, the overall goal of the Light Rail Transit Project is to decrease the bulk of longer trips. Therefore, the increase in trips surrounding the station should be a result of area residents patroning the light rail. A potential park-and-ride facility is indicated for one of the station alternatives for the Figueroa/Marmion area, see Exhibit 3.3-10 of the draft SEIR.

Reuben Campos, October 26, 1992 (3710 Pasadena Avenue)

Comment 1: Parking conditions should not be affected by the metrorail and I would like it very much if there would not be any trash nearby.

Response 1: The operator will maintain the stations.

Maria Evederor, November 7, 1992 (3692 Marmion Way)

Comment 1: Why is a station needed at Marmion Way and Figueroa Street? Because it is narrow and additional parking will be needed for passengers and users, the station will affect us a great deal.

Response 1: LACTC plans stations so as to provide maximum accessibility to those persons that would use the LRT as an alternative form of transportation. Based on the spacing of stations from Pasadena to Los Angeles, it seems reasonable that there would be a number of people from the Lincoln Heights and Mt. Washington area that would use a station in the area. Additionally, this station location is near the confluence of three major community collector streets (Pasadena Avenue, Marmion Way, and Figueroa Street). The Commission believes that placing a station at Marmion Way and Figueroa Street would provide the most access to the greatest number of area residents. Impacts of the station are addressed in Section 4, Environmental Impacts Analysis, of the SEIR.

Ana Berth Covarrubias, November 5, 1992 (3913 North Figueroa Street)

Comment 1: Parking is needed for the station at Figueroa and Marmion Way.

Response 1: A park-and-ride option is indicated for the Figueroa/Marmion area, see Exhibit 3.3-10 of the Draft SEIR.

Raul Montes, November 6, 1992 (103 East Avenue 37)

Comment 1: It is not necessary to put a station at Figueroa and Marmion Way. The station at the Southwest Museum is close. However, if they do build a station, please have them build separate parking for this station.

Response 1: Implementation of any stations will result in some increase in local traffic. However, the overall goal of the Light Rail Transit Project is to decrease the bulk of longer trips. Therefore, the increase in trips surrounding the station should be a result of area residents patroning the light rail. A park-and-ride option is indicated for the Figueroa/Marmion area, see Exhibit 3.3-10 of the draft SEIR. LACTC plans stations so as to provide maximum accessibility to those persons that would use the LRT as an alternative form of transportation. Based on the spacing of stations from Pasadena to Los Angeles, it seems reasonable that there would be a number of people from the Lincoln Heights and Mt. Washington area that would use a station in the area. Impacts of the station are addressed in Section 4, Environmental Impacts Analysis, of the SEIR.

SECTION 5
RESPONSES TO TESTIMONY RECEIVED IN PUBLIC HEARINGS

5.1 PUBLIC COMMENTS FROM THE PUBLIC HEARING HELD ON THURSDAY, OCTOBER 15 1992 AT 840 YALE STREET, LOS ANGELES (CHINATOWN)

Don Toy (private citizen, resident of Chinatown)

Comment 1: The Chinatown Community Advisory Committee and the redevelopment agency passed a motion on October 14, 1992 opposing the location of the LRT maintenance yard in the Cornfield area.

Response 1: Comment noted.

Comment 2: Oppose locating the LRT maintenance facility in the Cornfield Yard. The mitigation measures presented in the SEIR will not mitigate the impacts. Specifically, Cornfield yard is the last large piece of property that is available for Chinatown to expand. The residents of Chinatown need additional recreational space and the Cornfield Yard would be appropriate for expansion of recreational opportunities. Additionally, low- and moderate-income housing, businesses, parks, or schools could be placed at the Cornfield site. The Cornfield Yard should be left available for expansion within Chinatown.

Response 2: The LACTC recognizes that other uses for this site have been discussed by the community. As discussed in the Section 4.1 (Land Use) of the Draft SEIR, the placement of the proposed light rail facilities at Cornfield Yard would be consistent with the specific provisions of the Central City North Community Plan of the City of Los Angeles General Plan and the requirements of the City of Los Angeles Planning and Zoning Code. The alternative yard site is located in an industrial area and is currently used for locomotive operations. Selection of this site is not anticipated to result in any adverse land use compatibility impacts. Additionally, the LACTC will continue to work closely with the community during all phases of project implementation.

Comment 3: Although LACTC and the school district have entered into discussions regarding Cornfield Yard, the community has not been involved. Community representatives, community forums, or other vehicles should be instituted so that the community can be involved from the beginning.

Response 3: The LACTC will continue to work cooperately with the Chinatown community to ensure that all community representatives, community forums, or other community organized groups press and exercise their concerns regarding future development of the Cornfield Yard.

Comment 4: The LRT maintenance facility would require about 10 acres; schools require about 17 acres. Cornfield Yard totals 47 acres. If LACTC and the school district double their usage of the land there will not be any acreage left for the residents of Chinatown.

Response 4: The LACTC does not expect to require additional property for expansion.

Comment 5: The SEIR states that there will be no impact on traffic. This would not be the case. Chinatown has two arteries going east and west (College Street and Alpine) which funnel a great deal of traffic into the area. The addition of a maintenance facility would significantly increase traffic. Additionally, there will be significant noise and air quality impact.

Response 5: As stated in Section 4.2 (Transportation and Circulation), traffic impacts related to yard activities are generally considered to be minimal. Most of the daily activities would occur in the evening hours, after the light rail vehicles have come out of service. The proposed maintenance yards will not generate enough vehicle trips to impact surrounding arterials; there will be minimal deliveries and employee trips.

Comment 6: LACTC should determine if there are other parcels of land that might be better suited for this particular type of facility. For example, the old prison site.

Response 6: Several potential maintenance sites were considered in earlier route refinement and planning studies. The Taylor Yard, Wet Bank option, and Cornfield yard were selected for analysis for a variety of reasons including access, right-of-way, configuration, land use compatibility, and minimal potential displacements. A search for vacant or underused property was conducted adjacent

to the Pasadena-Los Angeles line. The alternative sites analyzed in the Draft SEIR reflect the most viable options.

5.2 PUBLIC COMMENTS FROM THE PUBLIC HEARING HELD ON MONDAY, OCTOBER 19, 1992 AT 300 EAST GREEN STREET, PASADENA

Sharon Clark (Transportation Advisory Commission, Chamber of Commerce Transportation Committee, Tri-cities Transportation Coalition)

Comment 1: Supports the project.

Response 1: Comment noted.

Arlene Willie

Comment 1: Suggests extending the line from Sierra Madre Villa in East Pasadena to the Santa Anita Race Track. By terminating the line at the Sierra Madre Villa, as currently planned, riders driving to the station from the south and east will increase the traffic in the already congested area. Extending the line to the race track will ease some of this potential congestion.

Response 1: Refer to Response to Comment 1, Southern California Rapid Transit District.

E. Shipherd

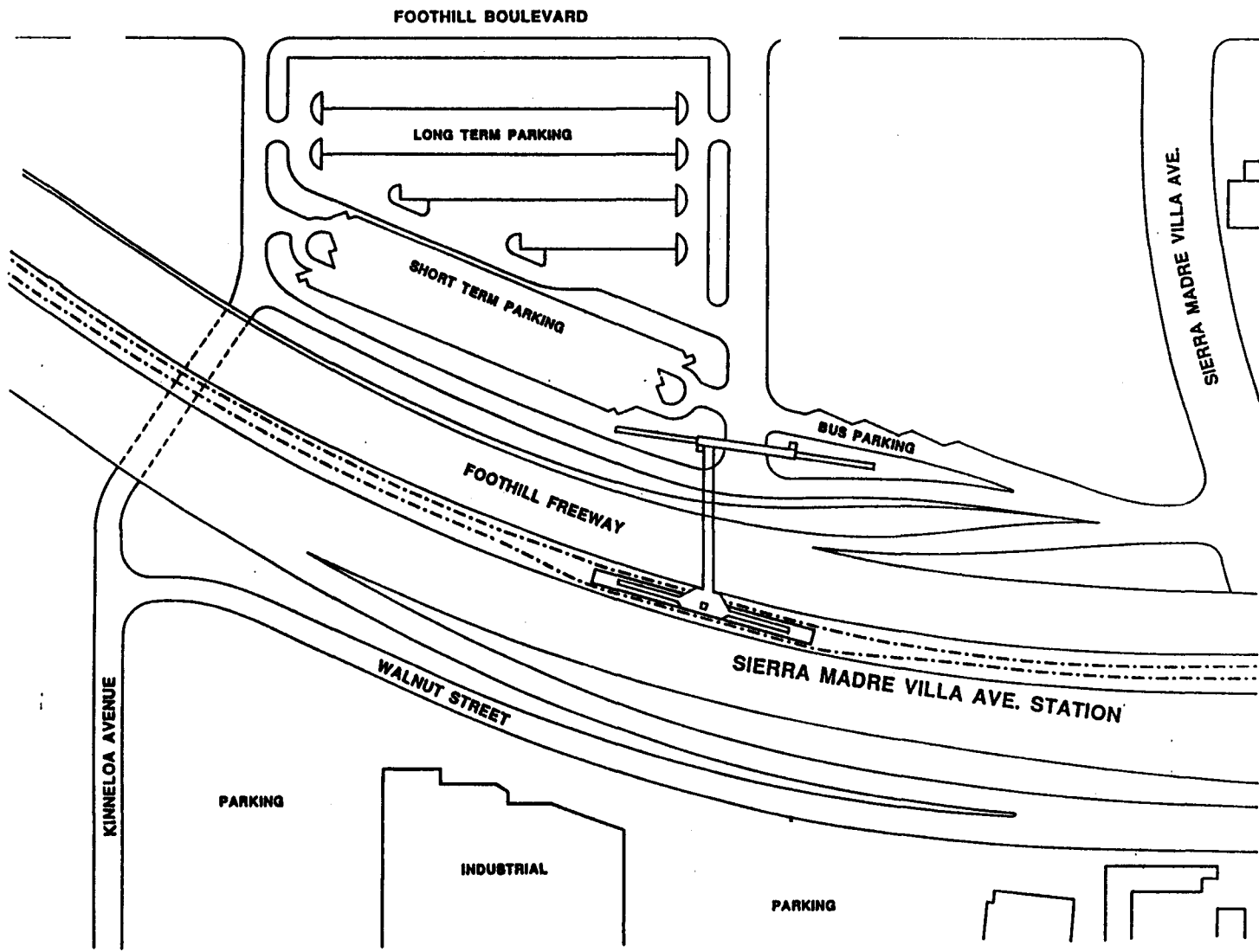
Comment 1: Does the SEIR address the health effects (air pollution) of waiting in a bus station to make a connection.

Response 1: Environmental Impact Reports, including the certified EIR and the SEIR on the Pasadena-Los Angeles Light Rail Transit Project, discuss local and regional air quality and analyze the project related impacts. If a project generates substantial emissions that create significant impacts, then mitigation measures are set forth to lessen project related impacts. Bus stations are not proposed as part of the project and are, therefore, not addressed.

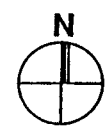
Arlene Willie


Comment 1: What is the location of the parking structure for the Sierra Madre Villa Station.

Response 1: As discussed above under the previous response to Arlene Willie, this is not apart of the environmental analysis for this document. The original EIR (1990) identifies the location of park-and-ride areas onsite. Please see the exhibit which follows this page and page 4-42 of the 1990 Draft EIR.



SIERRA MADRE VILLA AVE. STATION
AT GRADE - CENTER PLATFORM



DRAWN:	 LOS ANGELES COUNTY TRANSPORTATION COMMISSION PASADENA - LOS ANGELES ROUTE REFINEMENT STUDY
DESIGNED:	
APPROVED:	
BECHTEL CIVIL, INC.	
IN ASSOCIATION WITH: ANIL VERMA ASSOCIATES BSN LABORATORIES, INC. DKS ASSOCIATES MICHAEL BRANDMAN ASSOCIATES, INC. POH WONG ENGINEERING, INC. RALPH STONE AND COMPANY, INC.	

HIGHLAND PARK ALTERNATIVE
SIERRA MADRE VILLA AVENUE STATION

5.3 PUBLIC COMMENTS FROM THE PUBLIC HEARING HELD ON THURSDAY, OCTOBER 22 1992 AT LORETO ELEMENTARY SCHOOL, 3408 ARROYO SECO AVENUE (HIGHLAND PARK AREA) - 6 pm SESSION

Assemblyman Polanco

Comment 1: The flyover grade separation at the intersection of Figueroa and Marmion Way would create severe and permanent negative impacts on the surrounding communities. Strongly urge the reconsideration of a below grade separation at this intersection.

Response 1: As discussed in Section 4.8, Aesthetics, of the Draft SEIR, the aerial structure proposed for the grade separation at Marmion/Figueroa is considered an unavoidable adverse visual impact. During design of the grade separation, community workshops will be held to solicit community input on the architectural design and character of the proposed elevated structure. See also response to Comment 2, Councilman Mike Hernandez, November 10, 1992.

Comment 2: Using Proposition A or Proposition C funding to supplement LACTC's costs in studying and ultimately building the below grade separation at the intersection of Figueroa and Marmion Way should be pursued.

Response 2: LACTC has studied the costs involved in building a below grade separation at the intersection of Figueroa and Marmion Way. See Response to Comment 2, Councilman Mike Hernandez, November 10, 1992.

Comment 3: The communities surrounding Taylor Yard have disproportionately carried the light rail facility's expansion compared to other areas. The current construction of the massive Metrolink, a rail yard with reference to its maintenance at the Taylor Yard, is an illustration of the impacts that the Leision Valley, Cypress Park community, and Mt. Washington communities have expressed concerned. Therefore, the LRT maintenance yard should be located at the Cornfield site, under the condition that LACTC provides opportunities to the Chinatown residents to address their concerns.

Response 3: Comment noted. As noted in Section 4.1, Land Use, of the Draft SEIR, the light rail service and maintenance facilities proposed by LACTC are consistent with the provisions of the Northeast Area Plan of the City of Los Angeles General Plan and the requirements of the City of Los Angeles Planning Code. Additionally, Taylor Yard is currently used for diesel locomotive operations.

It should be noted that three maintenance yard configurations are under consideration: (1) the original Taylor Yard Option which would place maintenance operations between 150 and 500 feet from businesses fronting San Fernando road; (2) the linear Taylor yard option which would maintain a 700-foot setback from San Fernando Road; and (3) Taylor Yard Wye connector which would result in the displacement of a LADOT maintenance and storage facility, the Old City Jail, and an Anhing Corporation storage building. After mitigation, no unavoidable impacts are anticipated from placing the light rail maintenance facilities at Taylor Yard.

During the review period for the document, a public hearing was held in Chinatown to provide the community an opportunity to comment. Comments from the public hearing can be found in Section 5.1. LACTC will work closely with community leaders to coordinate development efforts that would be sensitive to community interests should the Cornfield site be selected.

Comment 4: LACTC should work closely with the local Historical Preservation Association in the northeast area, such as the Highland Park Heritage Trust, to insure that the stations reflect the rich culture and heritage of our community.

Response 4: LACTC shall work closely with interested community representatives during station design.

Bob Jamieson, Mt. Washington Association (3547 Tacoma Avenue, LA 90065)

Comment 1: A station adjacent to the Southwest Museum or shuttle connectors to a nearby station will improve public access to this important cultural landmark.

Response 1: Comment noted. As discussed on page 4-11 of the Draft SEIR, the proposed Southwest Museum Station would be located only 100 feet from the Museum entrance access ramp. Thus museum patrons would benefit from increased accessibility.

Comment 2: The Mt. Washington Association strongly opposes a flyover grade separation at the intersection of Figueroa/Marmion Way. A below grade separation will environmentally impact the neighborhood less. The estimated 0.5 mile long barrier will visually sever the immediate neighborhoods and will limit the potential revitalization at the intersection. The visual impacts to northeast Los Angeles would be impossible to mitigate and this unwanted scar could never heal with the surrounding community, as exemplified by the flyovers along the Long Beach Blue Line.

Response 2: Section 4.8, Aesthetics, of the Draft SEIR, notes that the aerial structures proposed for the grade separation at Marmion/Figueroa are considered an unavoidable adverse visual impact. During design of the grade separation, community workshops will be held to solicit community input on the architectural design and character of the proposed elevated structure. See also response to comment #1.

Comment 3: No authority has presented any compelling reason why a below grade separation is not worth studying and the Mt. Washington Association feels strongly that this should be examined as an option during the SEIR process. A meaningful discussion of this option is possible only after engineers have estimated a cost.

Response 3: See response to comment #1.

Comment 4: The best design solution of this segment of the Blue Line would successfully combine an open trench grade separation under Figueroa/Marmion Way, a station nearby to the south of this intersection in Lincoln Heights, and a station at the Southwest Museum or shuttle connectors to a nearby station.

Response 4: Comment noted.

Comment 5: Support the usage of Proposition A or Proposition C funding to supplement LACTC's costs in studying and building the below grade separation at the intersection of Figueroa/Marmion Way. The Mt. Washington Association will work with Councilman Hernandez' office to explore the possibility of using the City of Los Angeles' discretionary transportation funding to cover a portion of the engineering and construction costs of this below grade separation.

Response 5: Comment noted.

Comment 6 Supports the Cornfield option for the LRT Maintenance Yard as long as LACTC mitigates any objection by Chinatown's residents.

Response 6: Comment noted. LACTC took public testimony at a public hearing held on October 15, 1992 in the Chinatown community. The public comments given at this hearing and responses can be found in Section 4, Responses to Public Testimony Received in Public Hearings, of this Final SEIR. Additionally, the LACTC will continue to work closely with the community during all phases of project implementation.

Comment 7: The Mt. Washington Association oppose the use of parcels in the Taylor yard for the LRT Maintenance Yard; the adjacent communities are currently studying how best to develop this area. Taylor Yard already has an overabundance of poorly sited maintenance facilities.

Response 7: Comment noted. As noted in Section 4.1, Land Use, of the Draft SEIR, the light rail service and maintenance facilities proposed by LACTC are consistent with the provisions of the Northeast Area Plan of the City of Los Angeles General Plan and the requirements of the City of Los Angeles Planning Code. Additionally, Taylor Yard is currently used for diesel locomotive operations.

Ann Walnum

Comment 1: Using a personal experience, a concern was raised regarding the safety at existing Blue Line at-grade crossings. After making a left turn the commentor found herself trapped on the tracks with two vehicles (one before her and one behind) at a red light. The train was coming. The community of Highland Park has had four disastrous derailments and has suffered from the railway as it has passed through. It has not suffered quite so much in the crossing signals, but given the speed of light rail, which is greater than the required speed for the Santa Fe, these accidents really can happen. Careful attention needs to be given to the traffic and train crossing signals and possibly public information.

Response 1: LACTC has developed an aggressive public safety awareness program to address safety issues specific to at-grade crossings.

Comment 2: Feels the flyover facilities will avoid some of the existing hazards at the Marmion Way/Figueroa intersection.

Response 2: Comment noted.

Comment 3: The commentor approves of the Southwest Museum stop.

Response 3: Comment noted.

Comment 4: The commentor approves of the Cornfield Maintenance Yard.

Response 4: Comment noted.

Comment 5: The booklet, "Tips for Living with the Trains", does not mention trapment on the tracks. Suggest signage at the grade crossings reminding the motorists.

Response 5: Commented noted.

**5.4 PUBLIC COMMENTS FROM THE PUBLIC HEARING HELD ON THURSDAY
OCTOBER 22 1992 AT LORETO ELEMENTARY SCHOOL, 3408 ARROYO SECO
AVENUE (HIGHLAND PARK AREA) 7 P.M SESSION**

William Hunter (private citizen, 819 Town Avenue #281, Los Angeles 90021)

Comment 1: Since they've already established the location of the Metrolink maintenance yard, the Blue Line LRT maintenance yard and the Metrolink maintenance yard should be consolidated into one area rather than wasting land. Open space is very precious in Los Angeles and the Cornfield site is being designated for massive amounts of much needed low-income housing. The school district has an option on the property. Thus, Cornfield Yard should not be considered, making consolidation of facilities at Taylor Yard the preferred option. Preferably, the Blue Line yard in Long Beach should be considered in the future. There may be a problem due to the great distance involved.

Response 2: The Metrolink maintenance yard provides service and storage for diesel locomotives. The Pasadena-Los Angeles LRT vehicles will be electric and require separate facilities. However, consolidation of land parcels for the two yards is best represented by the Taylor Yard original option. Utilization of the Long Beach Yard would not replace the need to develop a local LRT maintenance facility.

Comment 2: Phone service should be available on the Blue Line immediately upon operation.

Response 2: Comment noted. LACTC intends to make telephone services available at all stations.

Comment 3: Stations should be built with more of an enclosure to provide protection to the rider from wind, rain, and inclement weather.

Response 3: Comment noted. Light rail stations are currently designed to afford maximum personal safety and security.

Comment 4: Currently, two different routes are proposed from 7th Metro Center to Union Station. The Pasadena line will terminate at Union Station as well, but there is a planned route to Bunker Hill. The route should extend to Bunker Hill with a station in Bunker Hill Civic Center. By providing a knock out panel at the 7th Metro Center people will be able to get from the Blue Line into Arco Plaza.

By extending the line through Civic Center, with a station, it can be easily connected to Chinatown in the future.

Response 4: In 1990, the LACTC certified the EIR for the Pasadena-Los Angeles Light Rail Transit Project and subsequently approved the project to stop at Union Station. This SEIR does not address a downtown connection to the Blue Line.

The LACTC is currently preparing a planning study separate from this SEIR process to examine a feasible range of alternatives for a downtown connection between the Long Beach Blue Line and the Los Angeles-Pasadena Blue Line.

Comment 5: Expressed concern regarding noise impacts from the train's horn. The proposed route will go through a primarily residential neighborhood and the residents will be greatly disturbed as the train blows its horn at each intersection every ten minutes. A solution is to elevate the tracks or put them below grade.

Response 5: LACTC is in the process of replacing the horns from the existing 100 dBA horns to an 86 dBA horn. Additionally, as much of the noise from LRT is caused from wheel to rail friction, LACTC will be starting a rail maintenance program by which they periodically grind the imperfections from the tops of the rails. This will provide for reduced noise during vehicle movement and braking. LACTC has initiated this program based on Blue Line operational experience. LACTC will be renting the equipment for preliminary usage and eventually buy one for long-term maintenance of all rail.

Comment 6: Amtrak will have to be rerouted with implementation of this project. This will result in the elimination of Amtrak service to Pasadena and the Foothill communities. This should be considered including the replacement of LRT with Amtrak.

Response 6: The elimination of Amtrak service along the Pasadena Subdivision was discussed in the original EIR (see Section 4.1, Land Use Impacts, page 4-12). Given that the right-of-way is not wide enough to accommodate both light rail and Amtrak service, Amtrak service from San Bernardino to Los Angeles shall be rerouted to the AT&SF's Third Division which runs through Fullerton.

Given that the Pasadena line originates at Union Station, Amtrak patrons in Pasadena would be provided access to Amtrak service through the use of the Light Rail line.

Comment 7: The alignment under Colorado Boulevard is very good.

Response 7: Comment noted.

John Bag Lady

Comment 1: Requests that public bathrooms be provided in the stations.

Response 1: Due to the size limitations of the LRT rights-of-way, LACTC does not incorporate restroom facilities into the design of station platforms.

Comment 2: Requests that adequate security be provided along the route.

Response 2: LACTC facilities are currently patrolled by the Los Angeles County Sheriff's Department. Upon the approval and subsequent implementation of the proposed project, the LACTC will initiate an open-end process whereby qualified security service agencies will compete for the opportunity to provide security and patrol services along this alignment.

Comment 3: Queries whether the Taylor Yard will be a maintenance or storage yard. The Blue Line already has a maintenance shop and the most sophisticated paint shop that all the other cars will use.

Response 3: The following activities or functions will be performed at the yard and shop site:

- Vehicle storage and yard operations.
- Vehicle servicing and light maintenance.
- Component replacement and limited repair.
- Maintenance-of-way operations.

No painting will occur at any of the Pasadena-Los Angeles alternative maintenance facility locations.

Comment 4: Request that unique architecture be implemented at the Taylor Yard. Also, would like low-cost housing, private offices, cultural center, or any other structure that the community could use built above the yard.

Response 4: LACTC has contracted a consultant to prepared a transit related development study for the Taylor Yard. This process will incorporate the alternatives that have been developed through the Taylor Yard Planing and Urban Design Workshops sponsored by the AIA/LA.

Comment 5: Should consider the ridership demand for another station placed between the Avenue 57 Station and the Pasadena Mission Station. Existing bus lines which go through this area could probably make the connection to the light rail.

Response 5: The December 1988 Draft EIR superceded by the December 1989 Revised Draft EIR evaluated a station location on Hawthorne Street east of the Pasadena Avenue/Monterey Road intersection. The City of South Pasadena indicated that LACTC should not pursue this location. Subsequently, LACTC replaced this station with a station at Mission Street.

Laura Knowles (Secretary, Mount Washington Association)

Comment 1: Concerned about the lack of plans for adequate feeder routes in terms of streets, and adequate park-and-ride lots. The only intersection where there is a possible park-and-ride is at the Southern Station. The street traffic in the area will not bear the addition of a park-and-ride lot; there are too many pedestrians and the streets are too narrow.

Response 1: LACTC is working cooperatively with the Southern California Rapid Transit District, as well as local transit agencies to provide feeder routes to and from proposed station locations. The provision of park-and-ride facilities at stations other than the three stations analyzed in this SEIR is discussed in the previously certified EIR. The southern alternative to the aerial station would include parking facilities for LRT patrons.

Comment 2: Opposes an aerial station at Marmion Way and Figueroa for a number of reasons: (1) it would be an eyesore, (2) it would create a physical and psychological barrier, (3) residents of nearby apartments would receive an incredible amount of noise, (4) although it is a commercially depressed area, there are signs that the area will rejuvenate but an aerial station would create a permanent disruption.

Response 2: The SEIR does indicate that an aerial station would exhibit unavoidable adverse impacts on the visual/aesthetic environment.

Comment 3: There is nowhere for a park-and-ride lot with an aerial station. By not providing a lot, the project seems to indicate that riders would come on foot because they have no alternative means of transportation. The station should be made more usable to all residents of the area. Additionally, there is a fair amount of crime in the area. By making the station usable only to those people who have no alternative means of transportation, there is an underling assumption that they can handle the crime and those who drive don't have to.

Response 3: The development of park-and-ride facilities requires significant areas of available property. LACTC has made an attempt to locate park-and-ride facilities where possible, however, the nature of the Highland Park Alignment is fairly dense residential and community commercial uses which would have to be displaced to provide additional facilities. In light of this, LACTC will

coordinate with other transit agencies to provide local area transit to and from stations with and without park-and-ride facilities.

Comment 4: Opposes the idea of an at-grade station for the Marmion Way and Figueroa intersection. Some people tend not to pay attention to the rail signage and they run through the lights. There have already been a number of people killed with the Metro Line. Additionally, given the number of children in the area, the station would represent a danger to them.

Response 4: As a public agency, LACTC is also concerned with the public safety. All detailed site designs will incorporate safety measures including signage and guard railing. Additionally, LACTC is engaged in continued public education efforts to apprise people of the dangers associated with increase usage of rail transportation.

Comment 5: The sewer lines exist and a below grade station is more expensive than a aerial station. However, in areas, such as Pasadena, LACTC has been willing to spend that money. This area merits the same. LACTC knows where the sewer lines are so with some planning, the LRT could work around them. It is more costly to construct the station properly the first time, but negative development of the neighborhood has long-term costs which would greatly exceed what LACTC is spending. We need to invest to make out neighborhoods as attractive and as usable as possible.

Response 5: The City of Pasadena is co-funding the preliminary planning and engineering of the below-grade separation. The LACTC has not committed to funding construction of this grade separation project. The sewer main line located below the intersection of Marmion Way, Figueroa Street, and Pasadena Avenue would need to be relocated if a subgrade alignment was constructed. Due to the width and geometry of the streets, this relocation would result in realignment of the sewer main through adjacent residential streets, thus, causing short-term but significant impacts to local residents.

John Bag Lady

Comment 1: LACTC should consider providing a 3-story parking structure and charge a fee of a dollar a day to help pay for the cost of the building.

Response 1: Your comment has been noted and will be forwarded to decision makers for consideration in the final design phase.

Charles Fisher (Chairman, Highland Park Heritage Trust and Highland Park Neighborhood Association)

Comment 1: The SEIR does not address the location of the power substation at Avenue 61. There are six homes at this location and the original EIR said that they would probably be removed. The current SEIR says that the station will not replace the homes. LACTC should place the substation on the old Union Pacific right-of-way, adjacent to this property. The land is presently owned by Foster and Clyde Billboard Company who is not using that portion of the lot.

Response 1: The power substation at Avenue 61 was identified in the 1990 EIR. The LACTC is exploring the Union Pacific property to avoid displacing the six homes located within proximity to Avenue 61 power substation.

Comment 2: There are plans underway to put a historic preservation overlay zone in Highland Park. This neighborhood is critical, if the homes are lost (to the substation) then the integrity of the three or four streets that come together at that point is lost.

Response 2: See response to comment 1.

Comment 3: A underground or depressed track at Marmion Way and Figueroa Street should be addressed in the SEIR. If a flyover is implemented, it must be sensitively designed. Additionally, the flyover would be adjacent to the proposed Historic District and there are a number of historic structures nearby.

Response 3: Comment noted. The proposed flyover, if implemented, would be designed to be compatible with the characteristics and visual landscape of the existing environment.

Comment 4: The Avenue 57 Station should be designed similar to the Santa Fe railroad station.

Response 4: Due to existing right-of-way limitations, and existing surrounding development, a facility similar to the Santa Fe Railroad station is not feasible without substantial displacement.

Comment 5: The SEIR does not mention that the Cornfield area, historically known as the river station area, is a Los Angeles City monument.

Response 5: Please refer to the setting portion of the Cultural Resources section on pages 4-91 and 4-92. The description of historic landmark #82 indicates that the resources identified are not in the portion of the yard planned for vehicle maintenance and storage. As such, the resources will not be impacted.

Comment 6: Support the project and the Southwest Museum Station. However, the commentor opposes sound walls through the Central highland Park historic area, as they become magnets for graffiti.

Response 6: Comment noted.

SECTION 6
ERRATA AND CHANGES TO THE EIR

This section indicates those portions of the draft SEIR that are revised to reflect changes arising from the subsequent review of the document. These changes to the document do not in anyway alter the conclusions documented in the Draft SEIR regarding the nature and extent of environmental effects.

Section 2.0, Summary

Table 2.4-1, page 2-7. In the first column, the first sentence of the first paragraph, should read as follows: "Implementation of the Taylor Yard Wye would result in the demolition of a LADOT storage..."

Table 2.4-1, page 2-13. In the last column, the phrase " at crossing stations and maintenance yard facilities" should read "at station crossings and maintenance facilities".

Table 2.4-1, page 2-15. In the first column, the first sentence should read as follows: "Development of the aerial structures at the West Bank Option and the Figueroa Street/Marmion Way grade separation will result in an unmitigatable impact."

Page 2-8. Under "Mitigation Measures," the sixth paragraph should be changed to read: "Arroyo Parkway at California Boulevard should be widened on the southbound and northbound approach to provide a southbound and northbound right turn lane. Arroyo Parkway at Glenarm Street should be widened on the northbound approach to provide a northbound right turn lane."

Section 3.3.4, Grade Separations

Page 3-8. Third paragraph, last sentence, replace the work "side" with the word "center." Add: "see revised Exhibit 3.3-1." Exhibit 3.3-7 follows this page.

Page 3-9. Last paragraph, replace the last two sentences with the following: "A preliminary engineering and feasibility study prepared for this subgrade alternative has determined that this subgrade configuration is feasible, given the criteria it must adhere to (i.e., avoidance of historic structures, safe foundation characteristics and structural properties).

Page 3-9. Last paragraph after the second sentence add: "The intersections of Union Street/Colorado Boulevard and Green Street/Colorado Boulevard will be traversed by the subgrade alignment. Refer to Exhibit 3.3-9." Exhibit 3.3-8 has been revised to indicate that the Allen Avenue Station is to be located just west of Allen Avenue and not east of Allen Avenue. Exhibit 3.3-8 follows this page.

Page 4-12. Fillmore Street Station: First paragraph, first sentence, replace "vacating" with "closed."

Section 4.1, Land Use

Page 4-13. Insert the following as the second sentence under the Colorado Boulevard Grade Separation discussion: "It should be noted that Holly Street will be closed with or without the proposed grade separation due to implementation of the proposed Janss development."

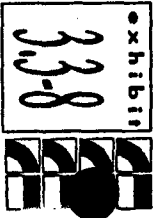
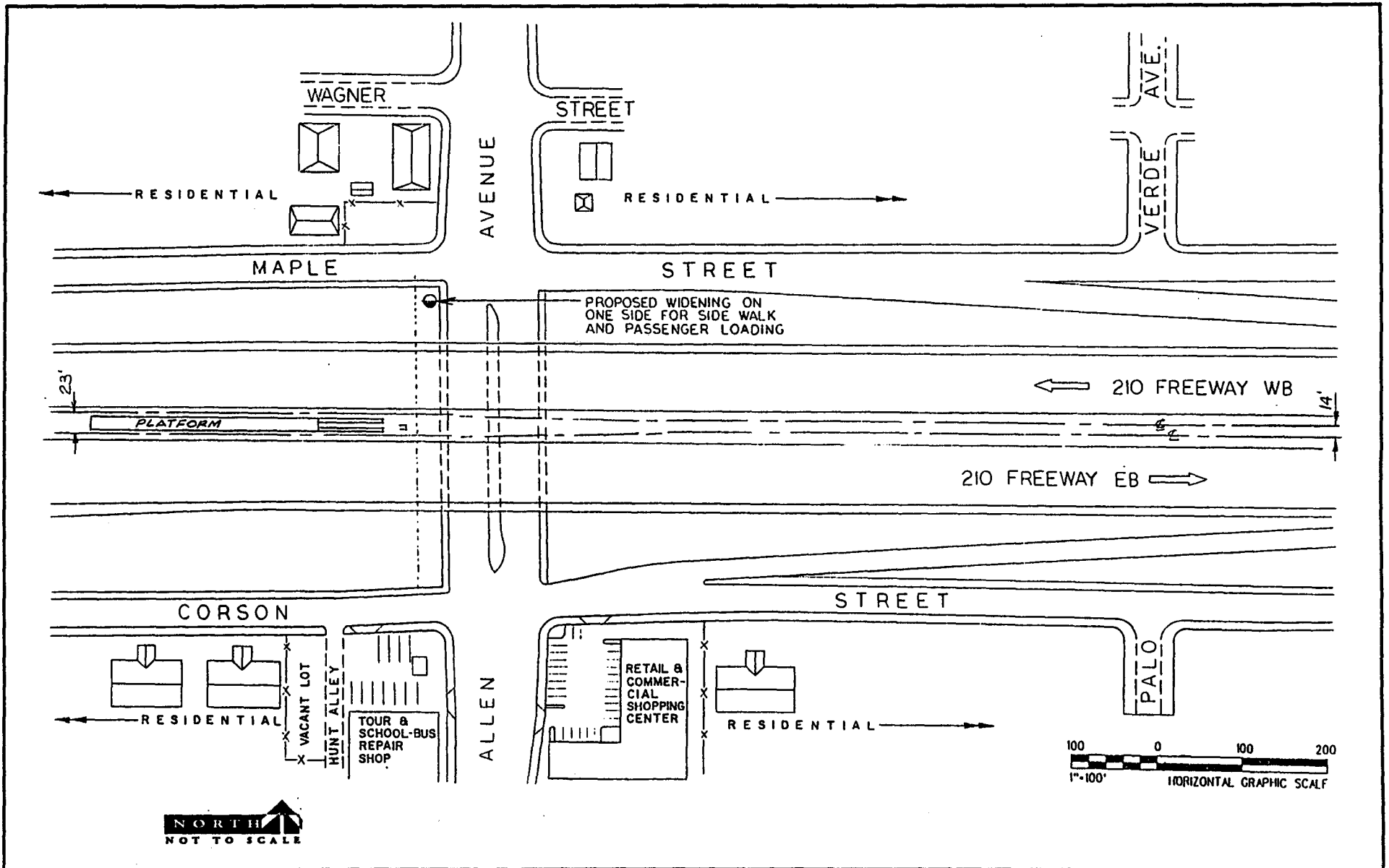
Section 4.2, Transportation and Circulation

Page 4-17. Under the "Environmental Setting", the last phrase of the first paragraph should be changed from "...and the ATSF Row." to "...and the ATSF R-O-W."

Page 4-19. Under the "Fillmore Street Station" heading, the top paragraph should be changed to read: "For the existing conditions analysis, traffic volumes for the Arroyo Parkway/Glenarm Street intersection has been adjusted from the 1989 volumes, using an annual growth rate of 1 percent. Newer 1992 traffic counts were used for the existing volumes at the Arroyo Parkway/California Boulevard intersection."

Page 4-19. Table 4.2-2 for the line entry "Arroyo Parkway/California Boulevard" should read:

Intersection	Period	Existing	
		V/C	LOS
Arroyo Parkway/California Boulevard	P.M.	0.92	E




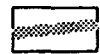

ALLEN AVENUE STATION

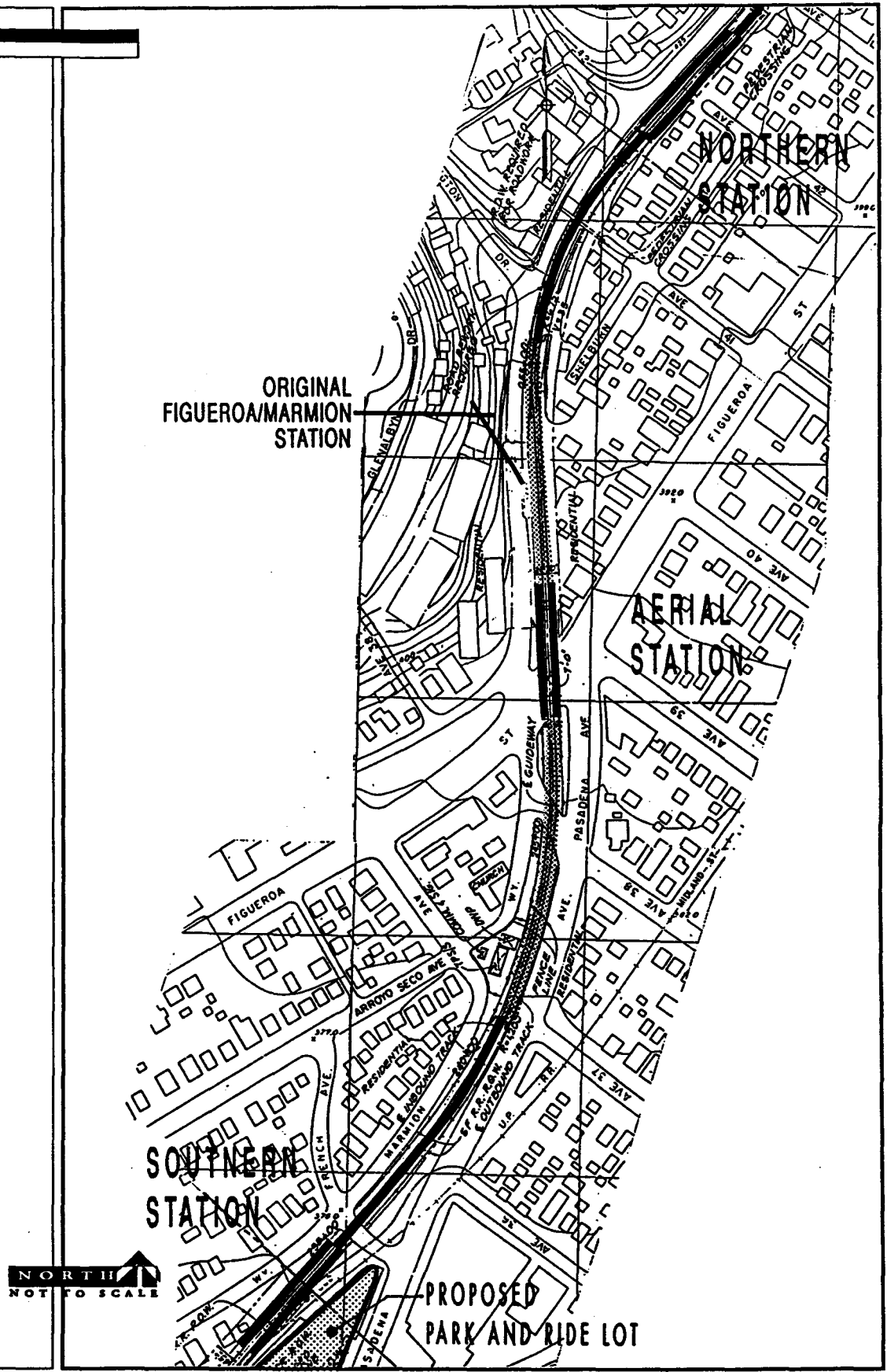
Pasadena Light Rail Final Supplemental EIR

Michael Brandman Associates

exhibit
 3.3-8

LEGEND

-  ALIGNMENT
-  AERIAL
-  STATION

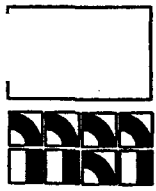


FIGUEROA/MARMION GRADE SEPARATION

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exhibit
3.3-10



Page 4-24. Table 4.2-7 for the line entry "Arroyo Parkway/California Boulevard" should read:

Intersection	2010 No Build	Fillmore Open	Mitigated Fillmore Open	Fillmore Closed	Mitigated Fillmore Closed
Arroyo Parkway/California Blvd.	1.14 F	1.17 F	1.13 F*	1.17 F	1.13 F*

- * Mitigation could be obtained if Fillmore Street is kept open by widening the northbound approach to provide a right-turn lane. If Fillmore Street is closed, mitigation could be obtained by widening both the northbound and southbound approaches to provide a right-turn lane.

Page 4-25. Top paragraph should read: "Mitigation measures may be required because the V/C ratio with the project would exceed the "No Build" V/C ratio by a significant amount. The proposed mitigation measure is to widen the southbound and northbound approach to the intersection and provide a southbound and northbound right-turn lane. The previously certified EIR for the Glenarm Station had recommended widening the southbound approach, but new information indicates that if the station were to be at Glenarm Street, the northbound approach should be widened instead."

Page 4-27. Replace the third sentence of the first full paragraph with the following: "The station will be incorporated with the Janss development, in tunnel and at a lower elevation than otherwise with the Colorado Boulevard grade separation."

Page 4-28. Change the title of Table 4.2-10 from "Projected Levels of Service: Colorado Subgrade" to "Projected Levels of Service: Colorado Vertical Alignment"

Page 4-29. In the last paragraph, first sentence the word "subgrade" should be replaced with "vertical alignment".

Section 4.5, Noise and Vibration

Page 4-67. The second paragraph, first sentence, should read "There are three separate maintenance and storage yard alternative locations being considered..."

Page 4-69. The first full sentence should read as follows: "At a distance of 1/2 mile, or approximately 2,640 feet, a 34 dBA noise reduction would be achieved through distance attenuation."

Risk of Upset/Health and Safety

Page 4-78. The following information should be added to the bottom of page 4-78:

Huntingdon/Schaefer Dixon Associates (SDA) completed a Phase II Due Diligence Investigation for the Cornfield Yard and discovered four areas of chemically contaminated soils. As shown in Exhibit 4.7-2, these include the former UST-7 site west of the proposed Metro Rail active area, UST-A site within the proposed active area, the former Texaco Station site and an oil storage site (buried tanks) on the slope above Broadway.

The Texaco site has a considerable amount of previous investigative work. Further investigation and eventual remediation is needed. There is a potential for groundwater contamination in addition to the residual soil contamination found in soil borings conducted by SDA.

Shallow borings from the second site on the bluff off of Broadway Avenue (oil UST) contained contamination from oil and solvent. Groundwater is present below this site as well.

The former site of UST-7 was found to be heavily contaminated to depths of 35 feet below the surface. Because to the shallow groundwater in the area, there is a potential for groundwater contamination. The former UST-A site abuts the bottom of the fillside slope of Broadway Avenue. The 15 foot borings taken from this site contained hydrocarbons above the active levels for soil.

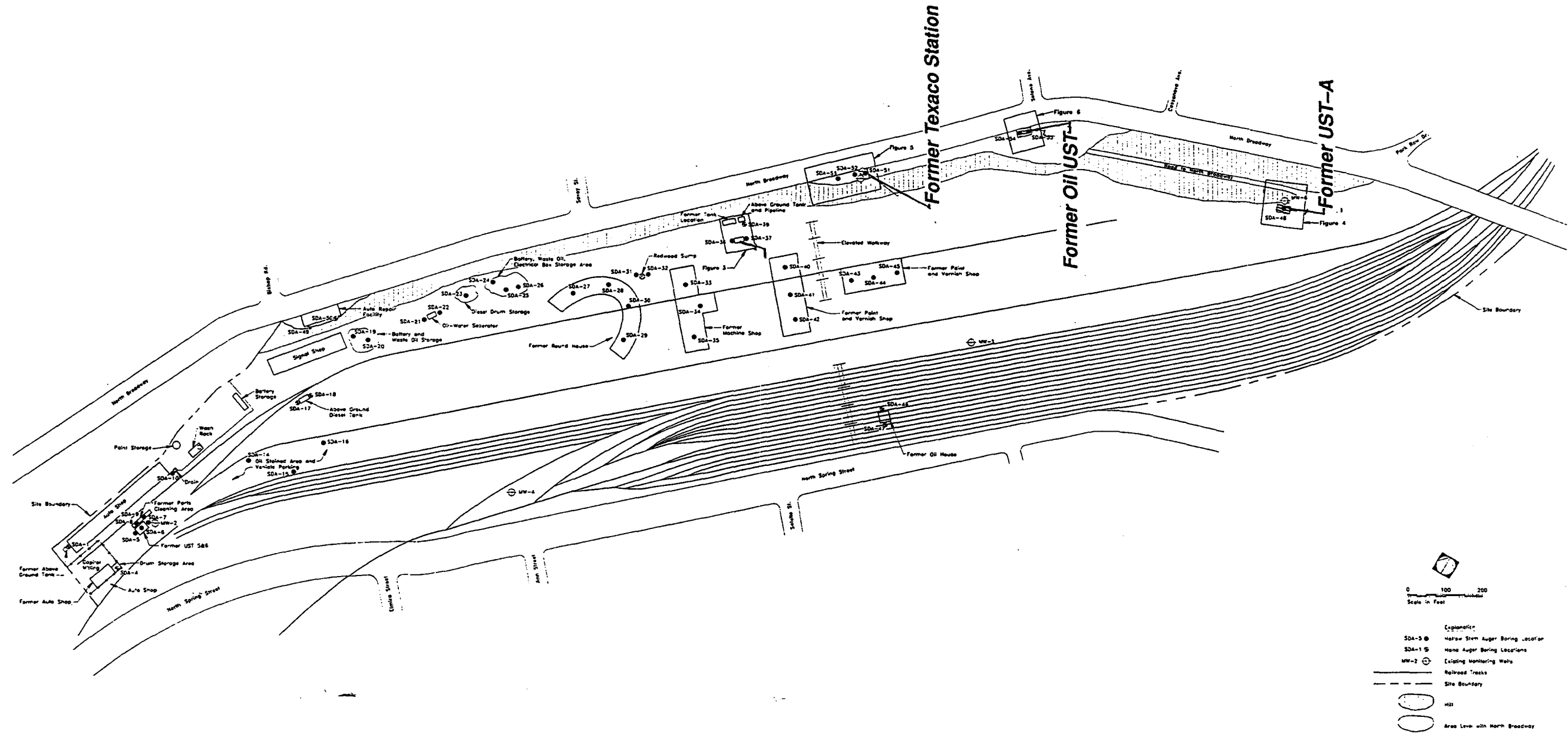
Page 4-82. Add the following after the first sentence under "**Cornfield Yard**":

This was verified by the Phase II Due Diligence Investigation conducted by Huntingdon/Schaefer Dixon Associates (SDA). SDA's investigations found four areas of contamination including the former UST-7 site west of the proposed Metro Rail active area, UST-A site within the proposed active area, the former Texaco Station site and an oil storage site (buried tanks) on the slope above Broadway.

Delete the second paragraph under "**Cornfield Yard**".

CORNFIELD YARD HAZARDOUS MATERIALS CONTAMINATION

Pasadena Light Rail Final Supplemental EIR



Section 4.8. Aesthetics

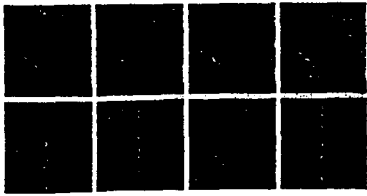
Page 4-88. Add the following to the end of the fourth full paragraph: "The station will be incorporated with the Janss development, in tunnel and at a lower elevation than otherwise with the Colorado Boulevard grade separation.

Section 4.9. Cultural Resources

Page 4-99. The second full paragraph, fifth line, a period punctuation mark (.) should follow the word "effect".

APPENDIX A

DECEMBER 11, 1992, CORRESPONDENCE TO LAUSD



Michael Brandman Associates



ENVIRONMENTAL COMPLIANCE • PLANNING • RESOURCES MANAGEMENT

December 11, 1992

Ms. Susan Rosales
Los Angeles County Transportation Commission
818 W. Seventh Street, Ste. 1100
Los Angeles, California 90017

SUBJECT: Los Angeles Unified School District Air Quality Concerns Regarding Taylor Yard Maintenance Facility as Addressed in the Pasadena LRT Supplemental EIR

Dear Ms. Rosales:

Michael Brandman Associates (MBA) has completed its review of the Operations and Maintenance Plan, May 1992, for the Metro Pasadena Project and Contract Documents for the Metro Green Line, Hawthorne Yard and Shop (the Pasadena line facility would include the similar specifications regarding air pollution controls). These documents describe the facility in detail and identify specific air pollution control measures. Based on this information, no substantial air quality-related health risk would appear to result from the operation and/or construction of the Pasadena Line yard and shop. This finding is supported by the following discussion.

Operations

Chapter 7 of the Operations and Maintenance Plan (see Attachment A) provides a detailed discussion of facility equipment and activities.

Page 7-1 of the Operations and Maintenance Plan, states that the only activities or functions performed at the yard and shop site would be:

- Vehicle storage and yard operations
- Vehicle servicing and light maintenance (including car washing)
- Component replacement and limited repair
- Maintenance-of-way operations

As stated on page 7-16 of the Operations and Maintenance Plan,

"It should be noted that the basic design of the Metro Green Line Hawthorne Shop will be utilized for the Pasadena Line vehicle shop...similar functions (e.g., no heavy repair) to be performed at each facility."

2539 Red Hill Avenue, Santa Ana, California 92705 714 . 250 . 5555 FAX 714 . 250 . 5556

SANTA ANA . LOS ANGELES . SAN DIEGO . SACRAMENTO

This statement is consistent with Table 7-3 (Attachment A, page 7-25) in the Operations and Maintenance Plan, which lists the equipment that would be used at the Pasadena yard and shop. The list of equipment consists primarily of electric and manual (hand-operated) machinery. Major repair of light rail vehicles which would require heavy-duty, stationary, diesel-powered equipment, would take place at the Long Beach (Blue Line) maintenance yard. Electrically-powered equipment does not generate air emissions at the location of usage. Further, hand operated equipment produces no emissions.

As stated in the Contract Documents, Section 01566, Pollution Controls, (Attachment B), activities shall be required to follow the following procedures and techniques which would serve to minimize potential air quality impacts related to stationary source emissions:

- Mix concrete offsite instead of onsite
- Use electric instead of diesel-powered equipment
- Use effective intake and exhaust mufflers on internal combustion engines and compressors
- Provide enclosures for stationary items of equipment
- Turn off idling equipment

The combination of limited air pollution sources and implementation of pollution control measures would substantially reduce the potential for air emissions. In addition, as indicated in Table 7-2 (Attachment A, page 7-19) of the Operations and Maintenance Plan, Vehicle and facilities maintenance activities would occur seven days a week and would be evenly distributed between the day, afternoon and night-time, thus further minimizing exposure of sensitive receptors (daytime students) to potential air quality impacts.

Construction

Air pollution controls outlined in the Operations and Maintenance Plan, to control the potential for fugitive dust emissions during project construction include implementation of SCAQMD Rules 402 and 403. In order to implement these regulations, the following procedures would be used:

- Cover loads of materials, debris and waste materials taken from construction sites.
- Water down and sweep streets which have heavy volumes of construction vehicles carrying debris and excavated materials daily.
- Establish regular cycles and locations for washing trucks which haul waste materials from Worksite.
- Water down construction sites as needed to suppress dust during handling of excavation soil or debris or during demolition.

Further it is stated on page 01566-4 of the Contract Documents to "Use construction equipment which has been designed and equipped to prevent or control air pollution in conformance with the most strict regulations of the EPA, State and local authorities".

Ms. Susan Rosales
December 11, 1992
Page 3

MBA has concluded that based on (1) the absence of heavy or major repairs or maintenance activities occurring onsite; (2) the predominance of electrically-powered equipment; (3) the enclosure of all stationary machinery and ensuring that machinery is equipped to prevent air pollution in conformance with the most strict regulations of the EPA, State and local jurisdictions; (4) compliance with SCAQMD regulations and implementation of recommended mitigation measures and pollution controls designed to reduce air emissions; and (5) a 7-day maintenance schedule that would distribute operations evenly throughout the day and reduce a peaking of activities and thus, the potential for concentrated emissions during school activity periods, there would be no substantial health risk associated with construction or operation of the Pasadena Line yard and shop. Because the potential for health-risks for students is minimal and substantial air pollution controls will be implemented during construction and operations, no additional air-quality analysis appears warranted.

Sincerely,



Thomas Fitzwater, AICP
Director of Transportation Services

TWF/jal:13621210.ltr
Attachments
JN 13620004

**CHAPTER 7
YARD AND SHOP**

This chapter defines the yard and maintenance shop operations, functions, activities, and facility requirements for the Pasadena Line yard and shop site. This chapter also defines the requirements for the maintenance-of-way facilities for the Pasadena Line. The yard and shop site contains approximately 9.5 acres in the City of Los Angeles bounded by Broadway, Baker and Mesnager Streets. The yard and shop site plan is shown on Figure 7-1. The following activities or functions will be performed at the yard and shop site:

- A. Vehicle storage and yard operations
- B. Vehicle servicing and light maintenance
- C. Component replacement and limited repair
- D. Maintenance-of-way operations

7.1 YARD AND SHOP DESIGN REQUIREMENTS

The yard and shop design requirements are based upon the operation of the initial Union Station to Sierra Madre Villa segment and the future extensions to Azusa and San Fernando/Grandview (Glendale Branch).

The following requirements constitute the basis for the design and sizing of the yard and shop.

7.1.1 Fleet Size

- A. 40-vehicle initial fleet.
- B. 80 to 120-vehicle future fleet.

It is assumed that additional vehicle storage capability will be provided at the end(s) of future line extensions.

7.1.2 System Operation

- A. Revenue operation of 20 hours per day, 7 days per week initially.
- B. Revenue operation of 24 hours per day, 7 days per week in the future.
- C. Train consists of two to three vehicles per train.
- D. Eight-minute initial operating headway and four-minute ultimate operating headway during weekday peak periods.
- E. Average of 65,000 annual miles per vehicle.

FIGURE 7-1

YARD AND SHOP SITE PLAN

(TO BE DEVELOPED)

7.1.3 Maximum Vehicle Dimensions

- A. Articulated, 3-truck, 6-axle vehicle, 90' in length, 8'-9" in width, 12'-3" in height (22'-6" maximum height with pantograph in "up" position).
- B. Empty vehicle weight (AWO) of 98,000 lbs.
- C. Other vehicle characteristics will be the same as those for the existing Metro Blue Line vehicles except for wheel gage which will be AAR standard (4' - 7 11/16").

7.1.4 Yard Trackwork

- A. Layout design that precludes single-point failures resulting in a shut-down of yard operations; the storage yard ladder tracks at the mainline end of the yard may be paved (except for switchpoint areas) to facilitate the rerailling of derailed cars, should it be necessary.
- B. Connections between yard and mainline trackage without route conflicts for simultaneous train arrivals and departures at minimum design headways.
- C. Layout design that provides flexibility and efficiency in yard movements while minimizing non-revenue travel distance.
- D. Double-ended storage tracks of sufficient length to allow efficient storage of maximum-length trains; storage tracks will have direct access to mainline connecting trackwork and will be on track centers of 14' to allow space for catenary poles.
- E. Connecting track with adjacent commuter railroad trackage (if required).

7.1.5 Site Access/Security

- A. A network of main access roadways to the primary yard buildings and service roadways to the secondary yard buildings, train storage tracks, and material storage areas will be provided.
- B. The entire site will be fenced and adequate lighting will be provided throughout the body of the yard.
- C. Single-point entry for normal operations will be controlled by a guard on a 24-hour basis. Other gates will normally be closed and locked. A normally staffed guardhouse and gate with automobile turnaround space will be provided at the main entrance. A gate will be located at the secondary access point, but will not be staffed except during emergency or unusual conditions.
- D. Parking for employees, visitors, and others will be provided. Employee parking areas will accommodate the two largest shift changes. In addition, mainline access platforms will be provided for yard/mainline trips. The platforms will serve as a "flag stop" for employees or accompanied visitors and as a relief point for train operators.

- E. Yard site fire protection will, as a minimum, include:
1. Fire hydrants where appropriate in the site to meet the minimum hose reach requirements of the fire department having jurisdiction (usually 300' on center for 150' reach)
 2. Emergency fire and rescue access to appropriate points in the site
 3. An emergency evacuation plan for yard vehicles and position-specific individuals with coordination and implementation responsibility on each shift
 4. Other requirements in accordance with established Fire/Life Safety criteria.

7.2 YARD OPERATIONS

Yard operations consist of all activities and facilities necessary to provide trains for mainline operations and to receive trains from mainline operations in accordance with the established operating schedule. The yard operating plan outlined in this section reflects the methodology for accomplishing the necessary yard operations activities.

7.2.1 Yard Operations Concepts

- A. All movements within the yard site will be monitored and directed by the Yard Dispatcher located in the yard control room on the mezzanine of the vehicle shop.
- B. The Yard Dispatcher will direct all yard movements using train radio (on yard frequency) or public address communications with yard personnel.
- C. All movements within the yard site will be made at a restricted speed of 10 mph or less.
- D. All train operators will be qualified for both mainline and yard operations within a single job classification. The majority of train operators reporting for work for mainline or yard assignments will report to a Division Dispatcher located at the yard site. Operators assigned to runs that require the operation of trains from locations other than the yard will report to a transportation supervisor prior to going on duty. Operators reporting at the yard site for mainline operations will be responsible for taking their scheduled train from the storage yard to the mainline for revenue service.
- E. Movement of vehicles into, within, and out of the shop, and movements over shop trackage may be performed by qualified maintenance personnel.
- F. The transition where the authority for train operations is under the jurisdiction of central control (for movements to and from the mainline) or the Yard Dispatcher, (for movements to and from the yard), will be accomplished on the yard arrival/departure tracks.

7.2.2 Yard Movements and Related Activity

Transportation and Maintenance Departments' operations and responsibilities associated with the yard-related activities include:

- A. Train movements to/from revenue service
- B. Vehicle movements to/from vehicle shop
- C. Vehicle inspection (from revenue service)
- D. Vehicle interior cleaning
- E. Vehicle exterior cleaning
- F. Major scrub
- G. Vehicle sanding (replenishment of vehicle on-board sand hoppers).

The methodology for accomplishing the required yard and yard related activities is described below.

1. Yard to Revenue Service Moves (Pull-Out):

- a. Operator reports to Yard Dispatcher (or Division Dispatcher) prior to scheduled pull-out.
- b. Operator receives car number, or numbers if multicar consist, and location of consist in the yard from the Yard Dispatcher.
- c. Operator proceeds to yard and locates consist.
- d. Operator performs pre-pull-out inspection (walk around visual inspection) and pre-operating check (brakes, lights, doors, etc.) and notifies Yard Dispatcher of any deficiencies.
- e. Yard Dispatcher notifies Maintenance Department of defects.
- f. Mechanic determines if defect is serious enough to retain vehicle from entering revenue service or determines if quick fix can be made. Mechanic performs fix if it will get consist into revenue service on schedule. If fix will take an extended period of time, then mechanic puts consist or vehicle on hold list with Yard Dispatcher. Operator obtains new vehicle or consist assignment from the Yard Dispatcher and repeats from step "c" above.
- g. Operator moves vehicle or consist to the transition area at the direction of the Yard Dispatcher, and into revenue service at the direction of Central Control.

2. Revenue Service to Yard Moves (Pull-In):

- a. Yard Dispatcher directs train operator to spot inbound consist at the shop building, the washer, cleaning platform, or a specific storage track. Consists requiring work (preventive maintenance, corrective maintenance, washing, or

daily inspection) which cannot be handled immediately are placed on one of the tracks in the storage yard designated for such cars. Consists requiring only interior cleaning are placed on the cleaning platform track.

- b. Operator spots consist as directed and reports to the Yard Dispatcher for signout, layover, or next assignment.
- c. Yard Dispatcher coordinates any defects or other work to be done with Maintenance Supervisor.
- d. Yard Dispatcher directs operator or qualified maintenance person (shop movements only) to move car or consists appropriately as follows:
 - From the storage yard to the washer, shop, or other storage track
 - Through the vehicle washer to the storage yard
 - From the shop to the washer or storage yard
 - From one shop track to another shop track.
- e. Maintenance personnel perform daily inspections, washing, cleaning, preventive maintenance, or corrective repair as required.
- f. Maintenance Supervisor updates the daily workload schedule and other documentation as required.

3. Routine Car Cleaning:

Car interior cleaning will be performed at least once daily at the cleaning platform. Initially, car exterior washing is planned for every other day. Depending on experience and environmental conditions, exterior washing may be scheduled for every third day, once per week, or other appropriate interval.

Interior car cleaning will involve:

- a. Picking up loose papers, cans, bottles, and other bulky items left in the car.
- b. Sweeping the floor and picking up residue.
- c. Removing graffiti.
- d. Cleaning windows that are smeared or dirty.
- e. Collecting debris in plastic garbage bags and taking it out of the car to the yard dumpster or refuse collector.

4. Major Scrub

Performed by Maintenance Department personnel in the car washer or in the shop after quarterly inspection and involves the following activities:

- a. Clean all windows

- b. Scrub and wax vinyl or special coverings
- c. Scrub and clean wainscots and ceiling liners
- d. Clean all fixture lenses
- e. Hand wash car roof area, wash car including car ends, clean cab areas and seats, remove graffiti, fill sand hoppers.

5. Daily Inspection

Performed on the service and inspection shop tracks or on yard tracks by Maintenance Department personnel once per day per car, normally before revenue service or after peak-period service.

Daily inspection will involve inspecting at least the following:

- a. Pantograph and other roof-mounted equipment
- b. Undercar equipment
- c. Trucks (including wheels and brake discs)
- d. Doors
- e. Couplers
- f. Interior and exterior lights
- g. General condition of car exterior
- h. General condition of car interior
- i. Radio, public address, and intercom

6. Sanding:

Replenishment of on-board vehicle sand hoppers will be performed manually in the yard or during all monthly inspections (in the shop) and on an as-needed basis during daily inspections.

7.3 OPERATIONS FACILITIES

The facilities to be located within the yard and shop site that are required for the yard and mainline operations function will be located on the mezzanine of the vehicle shop. This location, will allow yard operations to be located in the vicinity of the yard areas where the majority of the operations activity occurs and will also allow more flexibility to accommodate an efficient yard layout given the constraints of the proposed site.

The operations facilities will accommodate the following operations activities:

- A. Yard dispatching
- B. Operator reporting and training
- C. Operations administration

7.3.1 Yard Dispatching

All train or vehicle movements within the yard will be directed and monitored by the Yard Dispatcher located in the yard control room. The yard control room will be located at a corner on the mezzanine of the vehicle shop and will be staffed at all times. The yard control room will be designed to provide as unrestricted a view of the yard trackwork as possible. The most critical yard areas requiring unrestricted viewing are:

- A. Trackage between yard and mainline
- B. Yard storage tracks
- C. Vehicle washer and cleaning platform

The window area for the yard control room will be maximized and windows will be tinted and sloped to reduce glare and transmission of heat.

Close communication, plus use of established schedules, rules, and procedures will be necessary between the Yard Dispatcher and the Train Dispatcher at central control for coordination of train movements between the yard and the mainline. Support for the maintenance facilities will require close coordination between the Yard Dispatcher and designated maintenance personnel.

The yard control room will require approximately 350 square feet of floor space for radio, PABX, public address, and emergency communications; a magnetic yard trackwork schematic; computer terminals; and a desk for the Yard Dispatcher. The yard control room will also be provided with a computer-type floor and air conditioning.

7.3.2 Operator Reporting

The train operator reporting area will be located on the mezzanine of the vehicle shop and will be the reporting location for the mainline and yard train operations personnel who begin and end their shift at the yard. Administrative offices for operations supervisory personnel will also be located on the mezzanine of the vehicle shop.

The operations reporting and administration facilities will be air conditioned and will include the following:

- A. Dispatch area with a counter and a secured storage room for the processing of train operators going on and off duty including the issuing and receiving of train operators' equipment such as portable radios, vehicle keys, flashlights, etc.
- B. Offices for yard and mainline supervisory personnel
- C. Reporting room and lunch room for operations personnel
- D. Training and conference rooms
- E. Men's and women's restrooms, showers, and locker rooms (50-50 ratio)

Approximately 3,000 square feet of floor space will be required for these operational areas. Additional design data for the operations facilities are listed in Table 7-1. The floor plan for the operations facilities is shown on Figure 7-3.

7.4 MAINTENANCE OPERATIONS

The maintenance plans for rail vehicles and facilities for the Pasadena Line are presented in this section.

7.4.1 Maintenance Philosophy

A. General

Functionally, the maintenance organization is a service organization responsible for making available to operations, on a timely basis, the facilities and equipment necessary to perform their intended functions safely, efficiently, and economically.

Controlled maintenance over the life of a system is economical, conducive to lower operating costs, and contributes to an increased availability of facilities and equipment.

The primary objectives of controlled maintenance programs are:

1. To maximize the safety, comfort, satisfaction, and convenience of passengers and employees
2. To provide adequate protection of property and equipment

3. To minimize system downtime

4. To minimize operating costs.

B. Preventive Maintenance

Preventive maintenance programs consist of routine tasks which are scheduled and performed at specified intervals. Tasks such as inspection, cleaning, lubrication, and servicing are included in preventive maintenance programs. The objectives of preventive maintenance programs are to:

1. Maximize passenger comfort and satisfaction

2. Reduce service failures and resultant corrective maintenance

3. Prolong facility and equipment life

4. Provide for inspection to ensure operational safety and system dependability

5. Minimize system maintenance costs

6. Optimize workload schedules.

C. Corrective Maintenance

Corrective maintenance consists of troubleshooting, repairing failed equipment, and returning the equipment to service.

The goal of corrective maintenance is to return a failed piece of equipment to service as quickly as possible in order to minimize system downtime and to reduce the time required to restore operational service. To accomplish this goal, corrective maintenance includes two distinct methods for troubleshooting and repairing system elements and subsystems as follows:

1. The restoration to service of a failed system element will be accomplished, where possible, by a technique called unit exchange, which involves replacing the lowest-level replaceable unit. When a system element fails, diagnostic technicians will respond to the failure and correct the problem, if possible, by replacing the failed unit from a supply of like units previously tested and adjusted to perform the intended function. Unit exchange requires that equipment and facilities be designed and configured so that repairs can be accomplished in this fashion and that provisions are made in manufacturing to assist the diagnostic technician in quickly and effectively determining the problem. This may require the incorporation of special fault indicators, portable test equipment, and a supply of critical replacement units:-

2. Corrective maintenance of assemblies or components will consist of troubleshooting and repairing failed assemblies or components and then testing and adjusting the assemblies or components to meet the intended function and to ensure the correctness of the repair. To accomplish the corrective maintenance of failed assemblies or components requires that equipment and facilities be provided so that repairs and overhaul activity will be accomplished in a component repair shop under conditions of efficient shop layout, cleanliness, competent supervision, adequate testing, and quality control.

D. Testing

Testing will be accomplished by the use of test apparatus configured to perform static and dynamic testing at the vehicle or wayside system and subsystem levels, and static bench testing at the assembly and component levels. The objectives of thorough testing are:

1. To ensure proper function of items under test

2. To provide for timely and accurate failure diagnosis

3. To reduce the time required to restore equipment to serviceable condition (and reduce the resultant costs) by identifying the lowest-level, failed, replaceable component.

E. Contract Maintenance

In certain instances, it may be more cost effective to have assembly or component repair and overhaul work performed by service contracts. The degree to which component or assembly repair and overhaul work is contracted out to local service shops or to the original equipment manufacturers is an important determinant of maintenance facility requirements, staffing, personnel skill levels, spare parts inventory, and component repair procedures. Factors to be evaluated in the decision include:

1. LACTC and SCRTD policies and practices
2. Availability of suitable contractors
3. Logistics, inventory, and material-handling requirements
4. Labor agreements
5. Special equipment requirements and costs
6. Availability of special skills and workload of maintenance forces
7. Liability implications
8. Equipment warranty implications
9. Relative costs.

F. Maintenance Scheduling

Maintenance scheduling maintains all vehicle and wayside workload schedules (preventive maintenance, corrective repairs, overhauls, modifications, etc.). This function coordinates maintenance requirements with operations, engineering, and inventory control personnel to ensure availability of vehicles, wayside elements, parts and materials, and the resolution of problems. Maintenance scheduling also maintains all vehicle and wayside maintenance records and documentation and provides the backup for the preparation of reports, analyses, and annual maintenance budgets.

7.4.2 Rail Vehicle Maintenance

The following vehicle maintenance activities will be performed at the Pasadena Line Yard and Shop:

- Daily inspection
- Preventive maintenance

- **Corrective repairs**
- **Major component changeout**
- **Wheel truing**
- **Interior cleaning**
- **Exterior washing**
- **Limited component repair and overhaul**
- **Undercar blowdown (future)**

Each vehicle operated in revenue service will be inspected daily in the service and inspection bay of the shop building or in the yard. Daily inspection will consist of a general safety and vehicle condition type of inspection (see 7.2.2, item 5).

Preventive maintenance for rail vehicles will be performed on the basis of hours or miles of mainline operation in accordance with the manufacturers' recommendations. Changeout of major components will involve the replacement of failed components or scheduled changeouts. Components removed from vehicles will be shipped to the appropriate component repair location (e.g. Long Beach main yard, other SCRTD facility, contract vendor, or the manufacturer). Limited component repair capability will be provided for vehicle truck assemblies, vehicle electronic components, batteries, and various electrical and mechanical components which can be repaired quickly and easily after removal from a vehicle. Major carbody repairs and painting will be performed either at the Metrolink Commuter Rail Facility or at (TBD).

Interior cleaning of rail vehicles will be performed daily at the car cleaning platform. The cleaning platform will be located between two tracks in the vicinity of the car washer. Power outlets, hose bibs, and lighting will be provided along the cleaning platform. The platform will accommodate at least 3 cars (270 feet) on each side, will be at least 6 feet in width, and will be equipped with an access ramp and stairs. Exterior cleaning will be performed in the car washer. Trains or cars will operate through the washer in the wash mode. The wash

operation will be initiated by the train operator at a control panel located at the entrance to the washer. The car washer will include storage and mixing tanks for water and cleaning chemicals, recycling equipment, brushes, water and chemical application arches with splash shields, manual cleaning platforms, local control panel, power outlets, hose bibs, and lighting. The design of the car washer will be similar to the current washer located at the Metro Blue Line main yard and shops. Initially, each rail vehicle will be washed once every two days. Provision will also be made for an undercar blowdown facility to be located adjacent to the car washer in the future.

7.4.3 Vehicle Shop Requirements

The vehicle maintenance shop will include the space, facilities, and equipment needed to accomplish the required activities in an efficient and orderly manner. The vehicle shop will be capable of maintaining all of the rail vehicles for the Pasadena Line. The overall facility layout will have an orderly arrangement of maintenance functions by activity, and in such a manner that each work activity can be performed with a minimum of interference from the other work activities. The vehicle work positions will be designed for quick and easy access to vehicle equipment.

The requirements for the vehicle shop are as follows:

- A. The shop will be designed to provide at least 8 rail vehicle work positions as follows:
 - 1 in-floor hoist position
 - 1 floor level position (for portable vehicle jacks)
 - 4 pit positions
 - 2 wheel truing positions
 -
 - 8 shop positions total

- B. Shop tracks will accommodate not more than 2 cars each and will be spaced 25 feet apart, insofar as possible.

- C. An overhead contact wire system will be provided for the movement of cars into/out of the shop. Sectionalization of the OCS will be provided for each rail vehicle shop position (the wheel truing track will be considered as one vehicle position).

- D. The wheel truing machine track will be separated from other shop tracks due to noise considerations. The wheel truing machine will be located near the center of the track to allow a car to remain within the shop during wheel truing and to allow other maintenance activities when the machine is not in use. The wheel truing machine shall be interlocked with the OCS in order to prevent simultaneous operation.
- E. The in-floor hoist position will be located in line with a floor-level position with reinforced floor areas for accommodating portable LRV jacks. The in-floor vehicle hoists will be shallow-pit type. The body supports will also be capable of lifting the vehicle. Three manually operated truck turntables will provide access to a truck/component track located adjacent to the in-floor hoist position. The truck/component track will be equipped with one truck hoist and two 7 1/2-ton capacity jib cranes.
- F. Vehicle pit work positions will be equipped with stairs, ramps, lighting, water, and power as provided for the service and inspection pits at the Metro Green Line Hawthorne Shop.
- G. A two-ton capacity jib crane will be provided for two of the shop tracks equipped with pits. The two-ton capacity jib crane located over the pit positions will be interlocked with the OCS to preclude simultaneous operation.
- H. An inspection/maintenance platform will be provided in conjunction with the two-ton capacity jib crane for access to rail vehicle roof-mounted equipment at the two pit work positions.
- I. An assembly/parts cleaning room will be provided for the steam cleaning or blowdown of vehicle trucks and other major vehicle components. The cleaning room will be located to allow access to/from the truck/component track.
- J. The use of natural light will be maximized in the design of the shops.

The floor space requirements for the Pasadena Line operations and maintenance support functions located in the vehicle shop are shown in Table 7-1.

The estimated staffing for future Pasadena Line operations to be used for the design of the yard and shop facilities is shown in Table 7-2.

The floor plans for the first floor and the mezzanine of the vehicle shop are shown in Figures 7-2 and 7-3, respectively.

It should be noted that the basic design of the Metro Green Line Hawthorne Shop will be utilized for the Pasadena Line vehicle shop. While a few changes in the interior layout of the Hawthorne Shop are required (to reassign space allocated for automated operations), the basic design is adequate for the Pasadena Line given the characteristics of the Blue Line vehicle, the expected annual mileage per car (65,000 for the Pasadena Line versus 120,000 for the Green Line), and the similar functions (e.g. no heavy repair) to be performed at each facility.

TABLE 7-1

VEHICLE SHOP DESIGN DATA

<u>ROOM/SPACE</u>	<u>MINIMUM SQ. FT.</u>	<u>REMARKS</u>
Yard control room	350	Mezzanine (corner location) with view of yard.
Transportation offices	700	Mezzanine
Train operator reporting/lunch rm	500	Adjacent to offices on mezzanine
Transportation restrooms/lockers	700	Mezzanine, with 50:50 men-to-women ratio.
Training room	300	Quiet area on mezzanine.
Conference room	500	Mezzanine
Maintenance offices	1800	1000 sq. ft. on 1st floor. 800 sq.ft on mezzanine.
Car cleaning supplies	300	First floor
Maintenance lunch room	300	First floor.
Maintenance restrooms/lockers	700	First floor 90:10 men to women ratio
Electronic test & repair	400	First floor

Small component repair	350	First floor
Major component area	3000	Adjacent to truck/component track
Parts storeroom	8000	First floor, with mezzanine
Parts office & records	250	Adjacent to storeroom.
Secured parts storage	250	Adjacent to storeroom.
Toolroom	300	Adjacent to storeroom.
Tool cart storage	150	First floor.
Assembly/parts cleaning room	400	First floor accessible from truck/component track.
Battery room	200	First floor on outside wall
Forklift/electric cart storage	As req'd.	For 5-6 vehicles. Near battery room.
Communications Equipment Room	200	First floor. Includes UPS battery room.
Air compressor room	600	Isolate due to noise.
Mechanical/electrical equipment rooms	As req'd.	

TABLE 7-2

PASADENA LINE YARD AND SHOP - DESIGN STAFFING

<u>JOB CLASSIFICATION</u>	<u>DAYS/ WEEK</u>	<u>DAY</u>	<u>AFTN</u>	<u>NITE</u>	<u>TOTAL STAFF</u>
TRANSPORTATION:					
MANAGER	5	1	0	0	1
SECRETARY/CLERK	5	1	1	0	2
INSTRUCTOR	5	2	0	0	2
ANALYST	5	1	0	0	1
SUPERVISOR	7	3	3	2	13
TRAIN OPERATOR	7	19	19	14	84
SUBTOTAL		27	23	16	103
VEHICLE MAINTENANCE:					
ASSIST. MANAGER	5	1	0	0	1
SECRETARY/CLERK	5	1	0	0	1
INSTRUCTOR	5	1	0	0	1
WARRANTY ANALYST	5	1	0	0	1
STORES KEEPER	7	2	1	1	6
SUPERVISOR	7	2	1	1	6
ELECTRO MECHANIC	7	8	8	8	39
LABORER/CLEANER	7	3	3	5	18
SUBTOTAL		19	13	15	73
FACILITIES MAINTENANCE:					
ASSIST. MANAGER	5	1	0	0	1
SECRETARY/CLERK	5	1	0	0	1
STORES KEEPER	7	2	1	1	6
SUPERVISOR	7	3	2	2	11
MAINTAINER	7	5	6	7	29
LABORER	7	2	3	4	14
SUBTOTAL		14	12	14	62
TOTAL		60	48	45	238

THE STAFFING LEVELS SHOWN ARE INTENDED ONLY FOR USE IN THE DESIGN OF THE YARD AND SHOP FACILITIES AND ARE NOT INTENDED TO REPRESENT EITHER INITIAL STAFFING LEVELS OR FINAL JOB CLASSIFICATION TITLES.



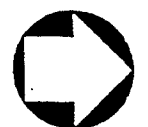
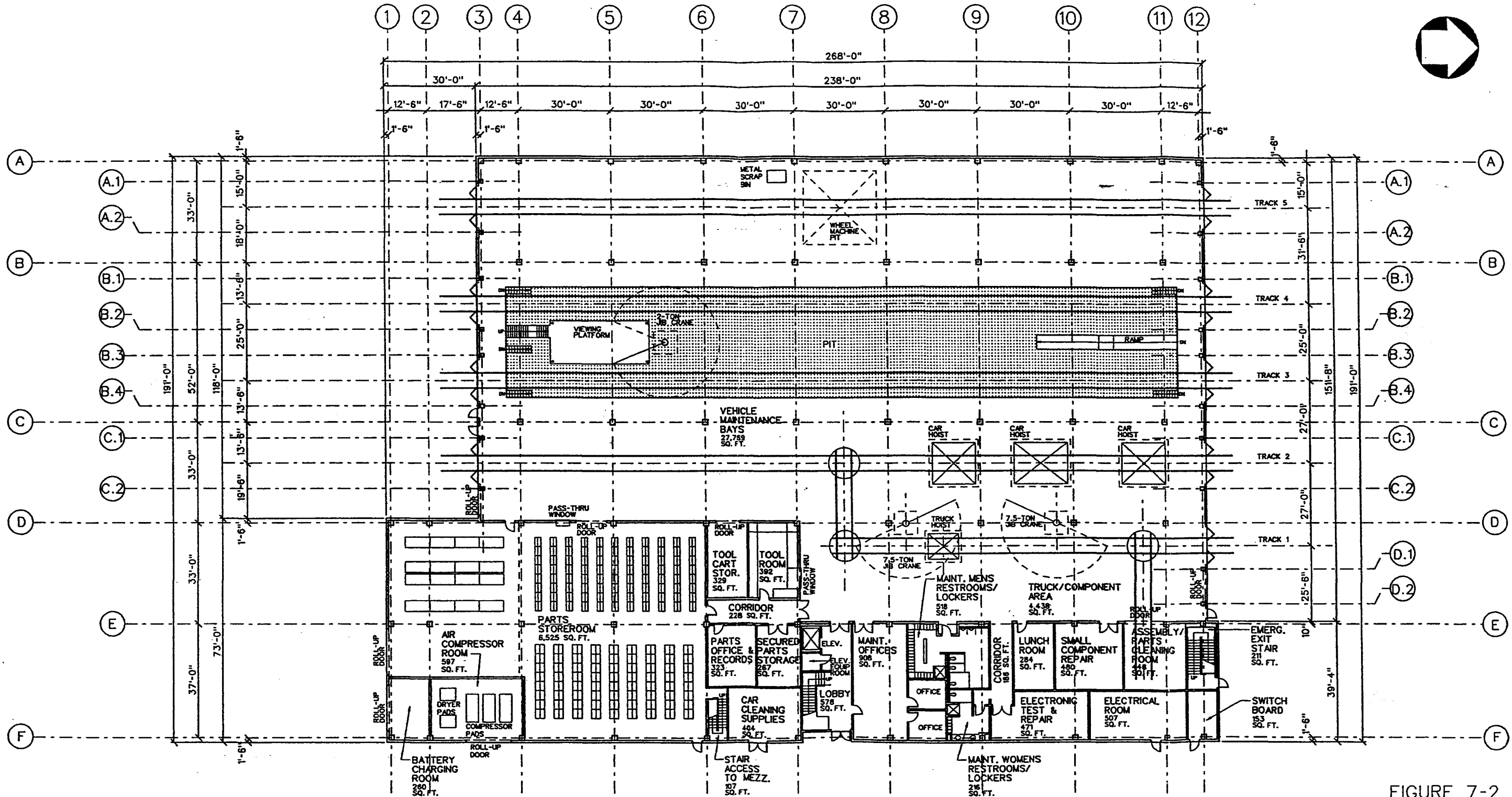
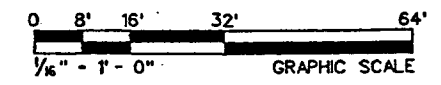


FIGURE 7-2



REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED BY
A. RAY
DRAWN BY
A. RAY
CHECKED BY
J. SOTO
IN CHARGE
J. SOTO
DATE
7 MAY 92

Rail Construction Corporation
METRO PASADENA PROJECT

METRO RAIL TRANSIT CONSULTANTS
 DMJM/PBQD/KE/HWA

SUBMITTED _____ APPROVED _____

**LAUPT TO PASADENA
 MAINT. YARDS & SHOPS**

**COMPOSITE
 GROUND FLOOR PLAN**

CONTRACT NO.	
DRAWING NO.	REV
AR-17-12	
SCALE	
1/16" = 1'-0"	
SHEET NO.	
7-20	

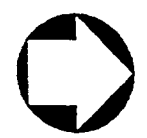
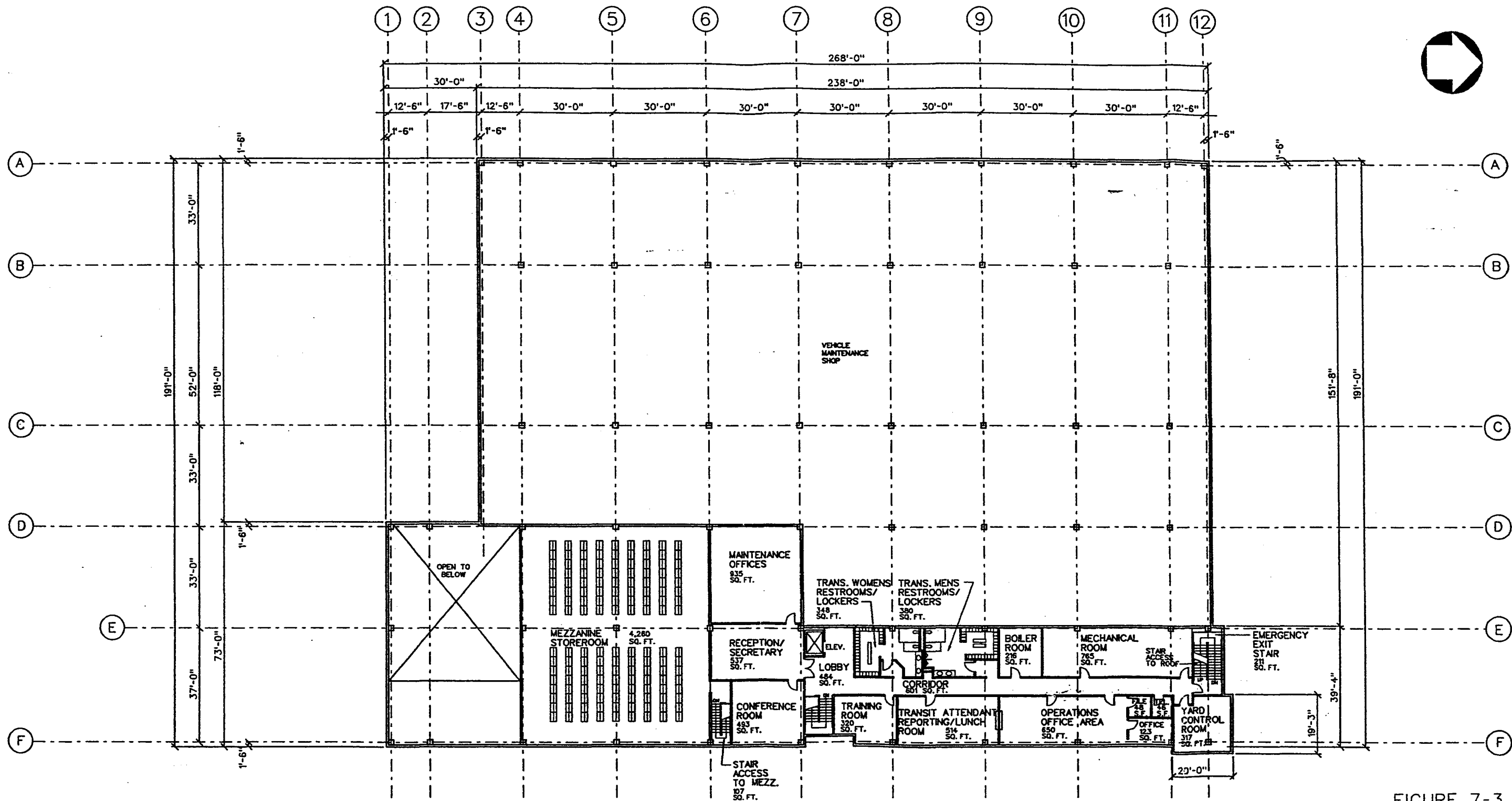




FIGURE 7-3



REV	DATE	BY	SUB	APP	DESCRIPTION	REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED BY
A. RAY
DRAWN BY
A. RAY
CHECKED BY
J. SOTO
IN CHARGE
J. SOTO
DATE
7 MAY 92


Rail Construction Corporation
METRO PASADENA PROJECT


METRO RAIL TRANSIT CONSULTANTS
 D/LM/PBQD/KE/HWA

SUBMITTED _____ APPROVED _____

LAUPT TO PASADENA
MAINT. YARDS & SHOPS
COMPOSITE
MEZZANINE FLOOR PLAN

CONTRACT NO.	
DRAWING NO.	AR-17-13
SCALE	1/16" = 1'-0"
SHEET NO.	7-21

7.5 MAINTENANCE-OF-WAY

7.5.1 Maintenance-of-Way Functions

Facilities maintenance functions for the Pasadena Line will be performed primarily out of the maintenance-of-way facility located at SCRTD's Metro Red Line yard site. The facilities maintenance functions associated with the Pasadena Line include inspection, maintenance, and repair of the following elements:

- **Trackwork**
- **Train control/signaling (including grade crossings)**
- **Communications**
- **Traction power and overhead contact system**
- **Fare collection equipment**
- **Stations and other structures**
- **Landscaping, fencing and other right-of-way elements**
- **Maintenance vehicles and equipment.**

The actual facilities maintenance work will be carried out at the equipment site and will require personnel to travel with necessary tools, equipment, and material to the specific site. Diagnostic maintenance techniques will be used and faulty components will be replaced or repaired at the site. Utilizing the philosophy of lowest replaceable unit exchange whenever practicable, failed items will generally be replaced and, if repairable, consigned to the designated component repair or electronics shop.

Facilities maintenance will be accomplished utilizing a combination of system personnel and service contracts. Generally, the approach to facilities maintenance will parallel that utilized for the Blue Line. To the extent practical, personnel and equipment for other Metro lines will also be utilized for the Pasadena Line.

7.5.2 Maintenance-of-Way Facility

An additional facility for maintenance-of-way will be provided at the Pasadena Line yard and shop site. The maintenance-of-way facility will accommodate the following activities:

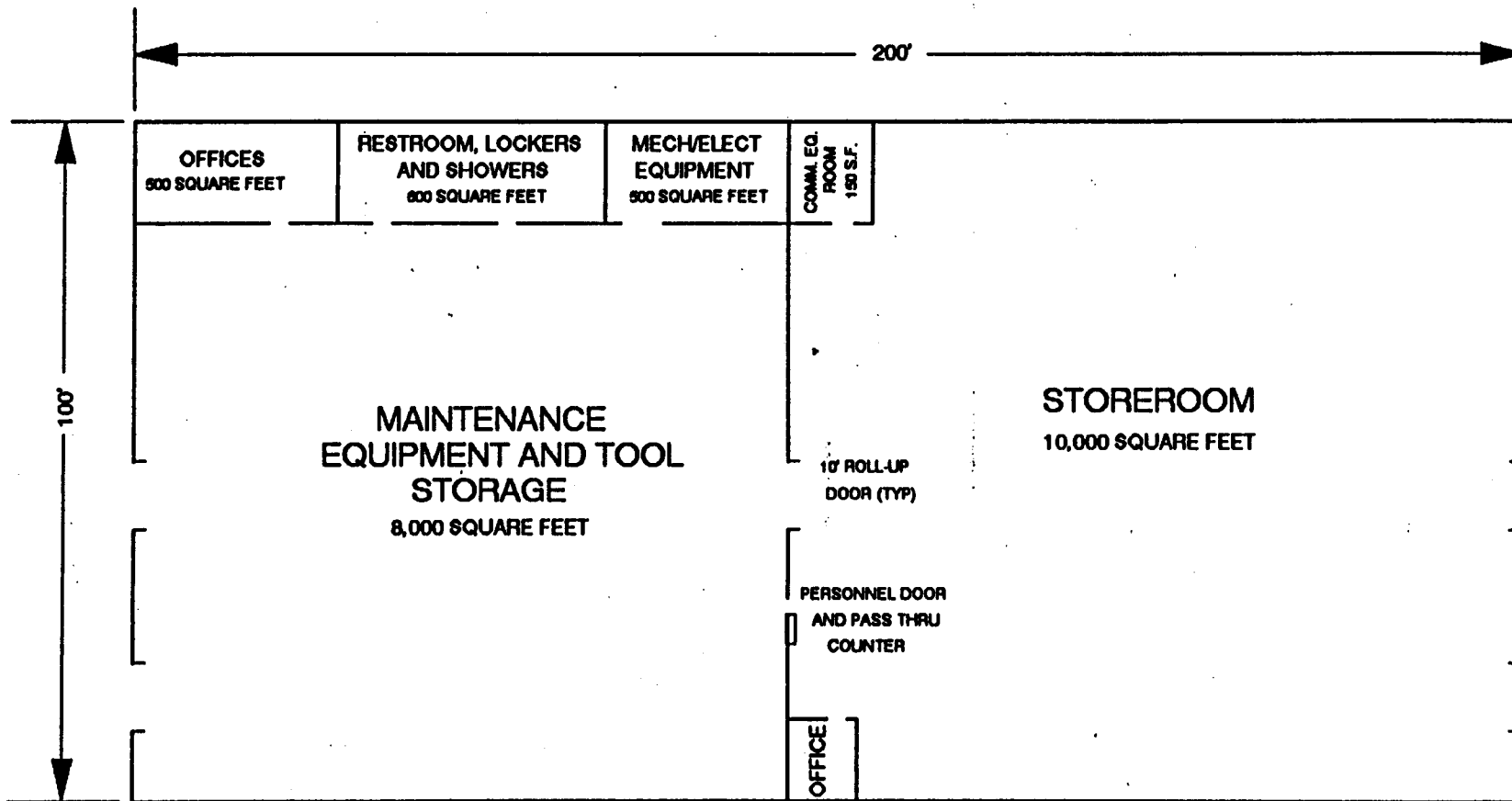
1. Staging point for Pasadena Line facilities maintenance personnel, vehicles and equipment.
2. Storage (indoor and outdoor) of facilities - related components and materials.
3. Storage (indoor and outdoor) of maintenance vehicles, equipment, and tools.
4. Staging area for wayside component dispositions to various component repair shops and contract vendors.
5. Storage track for track machines and other rail-borne equipment (track will be at least 300' in length).
6. Offices for maintenance-of-way supervisory personnel.
7. Employee restrooms, lockers and showers.
8. Employee parking.

Approximately 20,000 square feet of floor space will be required for the maintenance-of-way facility to accommodate the activities listed above. The conceptual floor plan for the maintenance-of-way facility is shown in Figure 7-4.

7.6 MAINTENANCE EQUIPMENT

The vehicle shop equipment and maintenance vehicle requirements for the Pasadena Line are listed on Tables 7-3 and 7-4, respectively. The equipment lists were developed with consideration given to the needs of the Pasadena Line and the equipment available or planned for the other Metro rail lines.

The equipment lists should be considered as being preliminary as refinements will be made as the design of the Pasadena Line progresses.



NOTE: ROLL-UP DOOR LOCATIONS SUBJECT TO CHANGE
DEPENDING UPON ACTUAL SITE CONDITIONS.

PASADENA LINE
MAINTENANCE-OF-WAY FACILITY
CONCEPTUAL FLOOR PLAN
FIGURE 7-4

PASADENA LINE YARD & SHOP EQUIPMENT LIST - TABLE 7-3

LINE ITEM	EQUIPMENT	DESCRIPTION	USE/LOCATION	QUANTITY		
				INITIAL	FUTURE	TOTAL
1	In-floor LRV hoists	Electric, 25-ton, 480v/3ph/30amp	Shop track	3	0	3
2	In-floor carbody supports	Electric, 10-ton, 480v/3ph/30amp	Shop track	8	0	8
3	Jib crane	Electric, 2-ton, 480v/3ph/20amp	Shop track	1	0	1
4	Jib crane	Electric, 7.5-ton, 480v/3ph/20amp	Shop track	2	0	2
5	LRV truck repair hoist	Electric, 480v/3ph/20amp	Truck/component track	1	0	1
6	LRV truck turntable	Manual, 10' diameter	Truck/component track	3	0	3
7	Wheel truing machine	With chip conveyor & bin, 480v	Wheel truing track	1	0	1
8	Car wash equipment	Complete w/recycling, 480v	Car washer	1	0	1
9	Portable LRV jacks	Electric, 10-ton capy.	Shop track	8	0	8
10	Portable carbody stands	10-ton capy.	Shop track	8	0	8
11	Forklift	Electric, 2-ton	LRV & M-of-W Shops	2	1	3
12	Shop lift truck	Electric, walk behind	LRV & M-of-W Shops	2	1	3
13	Lift table	1-ton, air operated	General shop	2	0	2
14	Lift truck hopper	2-cu. yd.	LRV & M-of-W Shops	6	0	6
15	Pedestal grinder	12", 2hp, 208v	LRV & M-of-W Shops	2	0	2
16	Drill press	15", 208v	LRV & M-of-W Shops	2	0	2
17	Magnetic particle tester	Portable, 120v	Truck/component area	1	0	1
18	Pipe bending table	120v	Truck/component area	1	0	1
19	Ultrasonic parts cleaner	6 qt. capy, 120v	Electronic repair	1	0	1
20	Battery rack	2 tier, 24 battery capy.	Battery room	2	0	2
21	Battery charger	LRV & shop vehicles, as required	Battery rm/storeroom	3	0	3
22	Storage cabinet	Metal, lockable	LRV & M-of-W Shops	12	0	12
23	Storage rack	Metal, adjustable shelf	LRV & M-of-W Shops	6	0	6
24	Shop workbench	Steel top	LRV & M-of-W Shops	12	0	12
25	Electronic workbench	Metal bench, wood top, with 120v	Electronic repair	2	0	2
26	Ladder, LRV access	Portable, insulated	General shop	4	0	4
27	Scaffold	Portable, insulated	General shop	2	0	2
28	Vacuum cleaner	Wet/dry, 10 gal. capy, 120v	General shop	5	0	5
29	Lubrication cart	Portable, 4 ten gal. drums	General shop	4	0	4
30	Bench grinder	7", 120v	LRV & M-of-W Shops	3	0	3
31	ARC welder/generator	Portable, 300amp, 208v	LRV & M-of-W Shops	2	0	2
32	MIG Welder	Portable, 400amp, 208v	General shop	1	0	1
33	Welding curtain	4 panel	LRV & M-of-W Shops	3	0	3
34	Electrode oven	Bench mounted, 120v, 1200w	LRV & M-of-W Shops	2	0	2
35	Welding/cutting outfit	Portable, 2 wheel, gas	LRV & M-of-W Shops	2	0	2
36	Shop Floor Scrubber	Electric, with charger	LRV & M-of-W Shops	1	0	1
37	Car cleaner's cart	Electric, with charger	Yard storage tracks	2	2	4
38	Track power tools	Rail saw, grinder, drill, etc.	Track	0	3	3
Total				123	7	130

PASADENA LINE AUTOMOTIVE VEHICLES & EQUIPMENT LIST - TABLE 7-4

LINE ITEM	EQUIPMENT	DESCRIPTION	USE/LOCATION	QUANTITY		
				INITIAL	FUTURE	TOTAL
1	LRV car mover	Hi-rail, w/couplers	Yard & Shop	1	0	1
2	Scissors platform truck	Hi-rail, stake sides	Track, OCS	1	0	1
3	Track crew truck	Hi-rail, 1-ton hoist	Traction Power, OCS	1	0	1
4	Pickup, 1-ton	Hi-rail, with lift gate	Facilities Maint.	1	0	1
5	Track machines	Tamp, line, gage, etc.	Track-all rail lines	0	3	3
6	Portable generator	2 wheel, 30 kw minimum	Emergency power	1	1	2
7	Stake truck	5-ton, lift gate	Stores Dept	1	0	1
8	Utility van	1-ton, side & rear doors	Sig, Tctn Pwr, Comm, FC	4	1	5
9	Pickup	1/2-ton	Equip/Facilities	2	1	3
10	Sport wagon	Small size Blazer/Bronco	Transportation	2	0	2
11	Sedan	Standard size	Transportation/Equip	2	0	2
12	Sedan	Standard size ^a	Security	5	2	7
Total				21	8	29



SECTION 01566

POLLUTION CONTROLS

PART 1 - GENERAL

1.1 DESCRIPTION

The Work specified in this Section consists of minimizing noise, either minimizing or eliminating air pollution, and water pollution caused by the construction activities and controlling the generation and disposal of solid or hazardous wastes.

1.2 QUALITY CONTROL

- A. The Contractor shall perform the work included in this section in strict accordance with the requirements of the Contractor's Quality Control Program as approved by the Construction Manager. Comply with the requirements of Section 01453 of these Specifications.
- B. The Contractor shall perform the following in accordance with Appendix A of Section 01453;
 - 1. Material qualification testing and certification for acceptance of materials, components and assemblies.
 - 2. Job control testing of in-progress work being performed in shops, factories and on-site.
 - 3. On-site inspection of specified work elements.

1.3 SUBMITTALS

- A. Refer to Sections 01300, Submittals, and 01340, Shop Drawings, Product Data, and Samples, for submittal procedures.
- A1 B. Submit drawings of proposed sound level measurement locations.
- C. Submit a schedule of proposed measurement frequencies and locations.
- A1 D. Submit the qualifications of an environmental testing laboratory hired by the Contractor to perform testing to determine the quality and quantity of any hazardous waste materials on this Contract.
- A1 E. Submit the qualifications of any subcontractors hired by the Contractor to handle, transport and dispose of hazardous waste materials.
- A1 F. Prior to demolition, submit a detailed plan for sampling and testing for hazardous materials at locations directed by the Construction Manager.

- D. Where more than one noise limit is applicable, use the more restrictive requirement for determining compliance.

3.2 VIBRATION CONTROL

The mitigation measures applied to limit noise levels will limit vibration levels also. The measures indicated in Part 3.1 are applicable. Vibration shall not exceed the limits as shown on Table 3.

3.3 AIR POLLUTION CONTROLS

- A. Criteria for Fugitive Dust - The detailed descriptions and explanations of specific impact mitigation measures are contained in the South Coast Air Quality Management District (SCAQMD) Rules and Regulations (Rules #402, "Nuisance" and #403, "Limitation of Fugitive Dust Emissions").
- B. In order to implement these regulations, Contractors shall use the following procedures and techniques:
1. Cover loads of materials, debris, and waste materials taken from construction sites.
 2. Water down and sweep streets which have heavy volumes of construction vehicles carrying debris and excavated materials daily.
 3. Establish regular cycles and locations for washing trucks which haul waste materials from Worksite.
 4. Water down construction sites as needed to suppress dust during handling of excavation soil or debris or during demolition.
- C. Burning of wastes is prohibited. Remove scrap and waste material and dispose of in accordance with laws, codes, regulation, ordinances, and permits.
- D. Use construction equipment which has been designed and equipped to prevent or control air pollution in conformance with the most restrictive regulations of the EPA, state and local authorities. Evidence of such design and equipment will be maintained and made available for inspection by the Construction Manager.
- E. Establish and maintain records of the routine maintenance program for internal combustion engine powered vehicles and equipment used on the project. These records will be held available for inspection by the Construction Manager.
- F. During excavation gases may be released from the soil or from underground reservoirs. These gases may contain methane, other more complex hydrocarbons or hydrogen sulfide and may present hazards due to their flammability or toxicity. The issue of safety during construction is covered by regulations of OSHA and CAL OSHA. Although the composition, quantity and concentration of the gases that might be

released are unknown, the release of these gases into the atmosphere may be subject to control by the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (ARB). The COMMISSION will coordinate this issue with the SCAQMD and the ARB and will inform the Contractor of further required action.

3.4 WATER POLLUTION CONTROLS

- A. Do not allow runoff water to be polluted.
- B. Treat wastewater from dewatering, storm runoff or any other actions of the construction operation to remove suspended particles and hydrocarbons through settling basins or hydrocarbon separators. Criteria for solids in the water are set by state and local water agencies.
- C. Obtain a National Pollution Discharge Elimination System permit from the Regional Water Quality Control Board and other necessary permits from appropriate local agencies for water discharge where required.
- D. Monitor wastewater discharge to insure it meets standards set by appropriate laws, codes, regulations, ordinances and permits. Records of measurements will be retained for inspection by the Construction Manager.
- E. Do not discharge pollutants such as chemicals, fuels, lubricants, bitumens, raw sewage, or other harmful wastes into or alongside rivers, streams, and impoundments, nor into channels leading thereto, and not on the ground.
- F. Control the use of lubricating oils, hydraulic fluids, greases and other such products. Promptly clean up and properly dispose of materials contaminated by spillage or leakage of these products.

3.5 SOLID AND HAZARDOUS WASTE CONTROLS

This Section applies to solid waste and to hazardous waste. Solid waste is defined as all putrescible and nonputrescible solid, semisolid and liquid wastes, but does not include hazardous wastes as defined in Section 25117 of the Health and Safety Code, Division 20, Chapter 6.5. The Contractor is responsible for the safe disposal of all solid and hazardous waste and shall dispose of such waste in accordance with all applicable laws, regulations and ordinances.

- A. Waste Generation - Solid waste or hazardous waste may be generated by the actions of the Contractor, including but not limited to demolition, site preparation, grading, excavation, construction, and maintenance of equipment. Should material of a questionable nature be encountered during construction activities, immediately notify the Construction Manager.
- A1 B. Disposal Regulations - The method of disposal is restricted according to the classification of the waste material by the California Hazardous Waste Control law, in Section 25100, Chapter 6.5, Division

