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**Notice of Determination**

MGL FOOTHILL EXT  
CONST. AUTHORITY

**TO:**

☐ Office of Planning and Research

For U.S. Mail:

P.O. Box 3044

Sacramento, CA 95812-3044

Street Address:

1400 Tenth Street

Sacramento, CA 95814

**FROM:**

Public Agency: Los Angeles to Pasadena Metro Blue Line Construction Authority/ Metro Gold Line Foothill

Extension Construction Authority

Address: 406 E. Huntington Dr., Suite 202

Monrovia, CA 91016

Contact: Habib Balian

Phone: 626-305-7001

☒ County Clerk

County of: Los Angeles County

Address: 12400 Imperial Highway

Norwalk, CA 90650

FILED

AUG 27 2009

DEAN C. LOGAN

REGISTRAR/RECORDS/COUNTY CLERK

C. CHEN DEPUTY

**SUBJECT:** *Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.*

State Clearinghouse Number (if submitted to State Clearinghouse): 2003061157

Project Title: Gold Line Phase II Extension (Pasadena to Montclair)- Segment 1 (Pasadena to Azusa)

Project Location (include County): Cities of Pasadena, Arcadia, Monrovia, Duarte, Irwindale, and Azusa; Los Angeles Co.

Project Description: In 2007, a portion of overall project was approved for implementation- construction of approximately 11.4 miles of light rail transit (LRT), from Pasadena to the eastern boundary of Azusa (Segment 1 of overall project discussed in Final EIR). The majority of construction would take place within existing railroad right-of-way. The Project would include new rail stations and parking in the cities of Arcadia, Monrovia, Duarte, Irwindale, and Azusa, and eight traction power substations along the route. This Addendum addresses minor project modifications in Segment 1 since certification of the FEIR, project approval, and adoption of a Mitigation Monitoring and Reporting Plan in February 2007.

This is to advise that the Construction Authority has approved the above described/revised project on August 26, 2009 and has made the following determinations regarding the above described project:

1. The project ☒ will ☐ will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.  
☒ This Addendum found no substantial changes in impacts compared to the 2007 Final EIR.  
☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures ☒ were ☐ were not] made a condition of the approval of the project in Feb 2007.  
☒ This Addendum found no substantial changes in the adopted 2007 mitigation measures.
4. A mitigation reporting or monitoring plan ☒ was ☐ was not ] adopted for this project in Feb 2007.  
☒ This Addendum found no need to change the adopted 2007 mitigation and monitoring reporting plan.
5. A statement of Overriding Considerations ☒ was ☐ was not] adopted for this project in February 2007  
☒ This Addendum found no need to change the adopted 2007 Statement of Overriding Considerations.
6. Findings ☒ were ☐ were not ] made pursuant to the provisions of CEQA.

This is to certify that the Addendum and Final EIR with comments and responses and record of project approval is available to the General Public at: 406 E. Huntington Dr. Suite 202 Monrovia, CA 91016

Signature (Public Agency):

HABIB F. BALIAN

Title: Chief Executive Officer

Date: August 26, 2009

Authority cited: Section 21083, Public Resources Code. Reference: Sections 21000-21174, Public Resources Code.

THIS NOTICE WAS POSTED

ON AUG 27 2009

UNTIL SEP 28 2009

09 0035261

## RESOLUTION NO. 2009-R-02

### RESOLUTION OF THE METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY APPROVING PROJECT REFINEMENTS RELATED TO PHASE II OF THE PROJECT AND MAKING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

THE METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION  
AUTHORITY HEREBY FINDS, DECLARES, AND RESOLVES AS FOLLOWS:

WHEREAS, the Pasadena Metro Blue Line Construction Authority, which is conducting business under the name of Metro Gold Line Foothill Extension Construction Authority (the "Authority"), is a public entity created by the California State Legislature pursuant to Section 132400 *et seq.* of the Public Utilities Code ("PUC") for the exclusive purpose of awarding and overseeing all design and construction contracts for completion of the Los Angeles - Pasadena Metro Blue Line light rail project, which is defined in PUC Section 132400 as extending from Union Station in the City of Los Angeles to the City of Claremont; and,

WHEREAS, Los Angeles County Metropolitan Transportation Authority has changed the name of the Los Angeles - Pasadena Metro Blue Line to the "Metro Gold Line;" and,

WHEREAS, the Authority certified a Final Environmental Impact Report ("FEIR") for Phase II, Segment 1 from Pasadena to Azusa (also referred to as Phase 2A, and the "Project" herein) and approved the Project in 2007; and,

WHEREAS, certain refinements to the Project, as set forth in Exhibit B, incorporated herein by reference ("Project Refinements") have been proposed and reviewed by the Authority Board; and,

WHEREAS, the Authority has caused an Addendum to the FEIR ("Addendum") to be prepared for the Project Refinements in accordance with the California Environmental Quality Act Guideline § 15164, because the proposed Project Refinements do not require the preparation of a new or supplemental EIR in accordance with CEQA Guideline § 15162, which Addendum is attached hereto attached hereto as Exhibit A; and,

WHEREAS, an addendum need not be circulated for public review but is attached to the final EIR in accordance with CEQA Guideline § 15164; and,

WHEREAS, the Authority Board has reviewed and considered the Addendum in conjunction with the FEIR; and,

WHEREAS, the Authority Board has reviewed the findings made in this Resolution and finds that they are based upon substantial evidence that has been presented to the Authority Board in the record of the proceedings. The documents, staff reports, technical studies, appendices, plans, specifications, and other materials that constitute the record of proceedings on

which this Resolution is based are on file and available for public examination during normal business hours in the Authority's offices and with the Clerk of the Board, who serves as the custodian of these records.

NOW, THEREFORE, THE METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY HEREBY FINDS, DECLARES, AND RESOLVES AS FOLLOWS:

Section 1. The foregoing recitals are incorporated into this Resolution by this reference, and constitute a material part of this Resolution.

Section 2. The Authority Board has independently reviewed and considered the contents of the Addendum prior to deciding whether to approve the Project Refinements.

Section 3. The Authority Board hereby adopts the Addendum, attached hereto as Exhibit A and incorporated herein by this reference, and approves the Project Refinements, attached hereto as Exhibit B and incorporated herein by this reference.

Section 4. The Clerk of the Authority Board shall certify to the adoption of this Resolution, and shall cause this Resolution to be entered in the official records of the Authority.

Adopted:

  
\_\_\_\_\_  
KEITH HANKS  
Chair of the Metro Gold Line Foothill Extension  
Construction Authority Board

ATTEST:

  
\_\_\_\_\_(SEAL)  
CHRISTOPHER LOWE  
Clerk of the Board

APPROVED AS TO FORM:

  
\_\_\_\_\_  
MICHAEL ESTRADA  
General Counsel

APPROVED AS TO CONTENT:

  
\_\_\_\_\_  
HABIB F. BALIAN  
Chief Executive Officer

EXHIBIT A

ADDENDUM

**Metro Gold Line Foothill Extension Construction  
Authority**

Addendum to Gold Line Phase II Extension Project  
2007 Final Environmental Impact Report  
as Certified for Segment 1

(SCH 200361157)

August 21, 2009

# Chapter 1: Introduction

## Summary of This Document

This Addendum assesses the environmental impact of refinements to Segment 1 of the Gold Line Phase II Extension (the Project) as required by the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] 21000 et seq.) and in compliance with the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). The environmental effects of the Project were evaluated in Draft and Final Environmental Impact Reports (SCH No. 200361157). The Final EIR for Segment 1 (Pasadena to Azusa) was certified on February 28, 2007 and the Project was approved. Subsequent to that certification and approval, refinements to the design of Segment 1 have occurred. The purpose of this Addendum is to evaluate any impacts of those refinements in comparison to the FEIR.

The fundamental conclusion of this Addendum is that the refinements will not result in any new significant impacts beyond those already identified in the certified Final EIR (FEIR), will not result in substantially more severe impacts than were disclosed in the FEIR, and that mitigation measures reported in the FEIR and adopted by the Metro Gold Line Foothill Extension Construction Authority in approving the Project will not be substantially changed.

The Metro Gold Line Foothill Extension Construction Authority, as the Lead Agency under CEQA, will consider the potential environmental impacts of the design refinements when it considers whether or not to approve changes to the Project as approved in 2007. This Addendum is an informational document to be used in the local planning and decision-making process. The Addendum does not recommend approval or denial of the proposed refinements.

## Legal Requirements

CEQA requires state and local government agencies to consider the environmental consequences of projects over which they retain discretionary authority even after an EIR has been certified. Under certain circumstances, additional CEQA documentation is required, as described in CEQA Guidelines section 15162 below:

### *15162. Subsequent EIRs and Negative Declarations*

- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on*

*the basis of substantial evidence in the light of the whole record, one or more of the following:*

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;*
  - (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*
  - (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR, was certified as complete or the Negative Declaration was adopted, shows any of the following:*
    - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;*
    - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;*
    - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or*
    - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*
- (b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subsection (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.*

- (c) *Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subsection (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.*
- (d) *A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.*

As described in Chapter 3 of this document, none of the conditions described in Guidelines Section 15162 have occurred. Under such circumstances CEQA Guidelines Section 15164 allows for the preparation of an Addendum as described below:

*15164. Addendum to an EIR or Negative Declaration*

- (a) *The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*
- (b) *An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.*
- (c) *An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.*
- (d) *The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.*
- (e) *A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.*



## **Organization of This Document**

CEQA Guidelines do not specify the format of an Addendum. The content and format of this Addendum is as follows.

Chapter 1, “Introduction,” identifies the purpose, scope, terminology, and organization of the Addendum.

Chapter 2, “Project Refinements,” identifies the proposed project refinements in detail.

Chapter 3, “Environmental Evaluation,” presents the expected environmental impacts of the project refinements in comparison to those disclosed in the certified FEIR. For each refinement, the change in impacts is compared to the criteria specified in CEQA Guideline Section 15162.

Chapter 4, “List of Preparers,” identifies the individuals involved in preparing this Addendum and their roles.

## Chapter 2: Project Refinements

Subsequent to certification of the FEIR and Project approval in 2007, the following design refinements and other changes have occurred.

### Arcadia

1. Residents approved local funding for construction of a grade separation to carry the light rail line over Santa Anita Avenue. This grade crossing was addressed as an option in the FEIR. Additionally, a statutory exemption to CEQA (Public Resources Code Sec. 21080.13) is provided for “...any railroad grade separation project which eliminates an existing grade crossing...” Thus there is no need for a separate EIR for the city-funded facility.

The traffic impact analysis reported in Chapter 3-15 (Table 3-15.23) of the FEIR indicated that traffic volumes on Santa Anita Avenue that interface with light rail operations could be safely managed with four quadrant gates to supplement existing medians and appropriate warning signs. These design features were included in the Project approval in 2007. The City’s funding of a grade separation removes the need for these design features since traffic on Santa Anita Avenue will pass unimpeded under the light rail line.

2. The City has requested a possible additional pedestrian crossing and passenger access at the east end of the light rail station in order to connect to Wheeler Avenue. This affects Station Option A (the preferred station location associated with the above-mentioned grade separation), shown in Chapter 2 (Figure 2-35) of the FEIR. This access would be connected to public streets and would provide more diverse distribution of passengers using the light rail station. A final decision on this possible change is subject to local funding approval by the City of Arcadia.

### Monrovia

1. The City of Monrovia is advancing work on the Station Square transit-oriented development project that adjoins the planned Monrovia light rail station (shown on Figure 2-37 in Chapter 2 the FEIR). As reported in the FEIR, that project will provide the transit parking to serve the light rail service. In analyzing the effects of the proposed development project which has been further defined since the analysis in the FEIR, the City has determined that Myrtle Avenue needs to be widened to accommodate traffic. The effect to the Gold Line Project is a need to redesign the at-grade crossing of Myrtle Avenue with the rail line and the adjoining intersection of Myrtle Avenue/Duarte Road.

2. The Station Square project also results in a need to widen Duarte Road between Myrtle Avenue and California Avenue. The effect to the Gold Line Project is a need to accommodate this widening in the aforementioned redesign of the intersection of Myrtle Avenue/Duarte Road and redesign the adjoining at-grade crossing of the rail line.
3. The planned widening of Duarte Road results in a need to shift the light rail tracks northward within existing rail right of way. The shift would be incorporated within the redesign of the at-grade crossings at Myrtle Avenue and California Avenue.
4. Improvements along Duarte Road afford the City of Monrovia, in cooperation with the City of Duarte, the opportunity to realign Mountain Avenue to eliminate a current jog in the roadway alignment. The effect to the Gold Line Project is a need to redesign the intersection of Mountain Avenue/Duarte Road and the adjoining at-grade crossing of the rail line.
5. Traction power substation (TPSS) number 3 (shown on Figure 2-53 in Chapter 2 of the FEIR) would be shifted to be located fully within railroad right of way, approximately ½ mile to the west (near the Santa Anita Wash) and would remain in the same general area.

#### Irwindale<sup>1</sup>

1. The station location needs to be shifted approximately 75 feet eastward from the location shown in the FEIR (Chapter 2, Figure 2-39) to provide better pedestrian access from the station parking area and nearby bus stop.

#### Azusa

1. A shift in the location of freight tracks from the south side to the north side within the railroad right of way that was included in the approved Project in 2007 is not now needed. This removes the need for a fly-over structure near Virginia Avenue that was analyzed in the FEIR (Chapter Section 2.3-2-2, Figures 2-17 and 2-18).

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<sup>1</sup> Consideration of alternative locations, which may or may not be in Irwindale, for the Maintenance and Operations Facility reported in the FEIR (Figure 2-49) to achieve a more efficient site layout are underway. If an alternate site is identified, a separate CEQA evaluation will be undertaken.

2. Relocating the freight tracks to the north also included a modification of the Azusa Wye railroad structure to provide freight delivery to a local business. Subsequent to the FEIR, it was found that deliveries to that business can occur via a different rail line and modifications to the Wye are not needed.
3. The Alameda Station in downtown Azusa would be changed from side platforms as shown in the FEIR (Figure 2-40) to a center platform configuration to better fit within the slightly curved railroad right of way.

## Chapter 3: Environmental Evaluation

Section 15162 of the CEQA Guidelines defines the circumstances under which a Lead Agency determines that no subsequent EIR needs to be prepared.

Section 15162 (a) (1) poses the question of whether there are “substantial changes in the project...due to new significant environmental effects or a substantial increase in severity of previously identified significant effects.” As demonstrated in the discussion of each project refinement below, the modifications and effects are minor, both at their specific location and for the project as a whole and thus would not be considered substantial. Also as demonstrated below, there are no new significant effects, nor substantial increases in severity associated with the project refinements in comparison to the environmental effects evaluated in the 2007 FEIR. As the basis for comparison, the 2007 FEIR concluded that:

- There were no significant impacts for the Acquisitions, long-term Air Quality, Community Facilities, Energy, Executive Orders, Freight Operations, Geologic/Seismic, Historic Resources, Land Use, and Safety & Security environmental categories.
- There were potentially significant impacts for Archeological, Biological, Hazardous Materials, Noise & Vibration, Socioeconomics, Traffic, Utility Disruptions, Visual, and Water Quality environmental categories, but these were reduced to less than significant levels by mitigation measures described in the FEIR and adopted in the Mitigation Monitoring and Reporting Plan.
- There were remainder significant impacts after mitigation only for construction-period air quality and noise at some locations. These remainder impacts were the subject of a Statement of Overriding Considerations adopted by the Construction Authority in February 2007.

Section 15162 (a) (2) poses the question of whether there are have been substantial changes “with respect to the circumstances under which the project is undertaken”. The certification of the FEIR and approval of the 11.4 mile Segment 1 of the overall Gold Line Phase II Project were done in 2007. The project refinements within Segment 1 contained in this Addendum do not represent a change in this basic circumstance. Additionally, the assumed characteristics for construction and operation of light rail service which were used in determining impacts and mitigation in the FEIR remain the same.

The following discussion assesses each of the Project Refinements with respect to the the four criteria in CEQA Guidelines Section 15162 (a) (3):

- *Would the project change have one or more significant effects not discussed in the FEIR?*
- *Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*
- *Would the project change need mitigation measures previously found not to be feasible?*
- *Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

## **Arcadia**

1. Project Refinement: Residents approved local funding for construction of a grade separation to carry the light rail line over Santa Anita Avenue.

This grade crossing was addressed as an option in the FEIR. Additionally, a statutory exemption to CEQA (Public Resources Code Section 21080.13) is provided for "...any railroad grade separation project which eliminates an existing grade crossing..." Thus there is no need for a separate EIR for the city-funded facility.

The traffic impact analysis reported in Chapter 3-15 of the FEIR indicated that traffic volumes on Santa Anita Avenue that interface with light rail operations could be safely managed with four quadrant gates to supplement existing medians and appropriate warning signs. These design features were included in the project approval in 2007. The City's funding of a grade separation removes the need for these design features since traffic on Santa Anita Avenue will pass unimpeded under the light rail line. Further, the replacement of an at-grade crossing with a grade separated crossing will improve the safety of the intersection and decrease the likelihood of collisions between vehicles, pedestrians, and LRT. It is for this reason that CEQA contains a statutory exemption for grade separation projects.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; no significant effects associated with the grade separation were identified in the FEIR, and inclusion of the grade separation would not result in any effects beyond those already identified in the FEIR.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; no significant effects associated with the grade separation were identified in the FEIR. Completion of the grade separation would in fact reduce the potential for traffic and pedestrian conflicts associated with at-grade crossings.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no infeasible mitigation measures related to the grade separation were identified in the FEIR. The project approval included at-grade crossing protection in accordance with California Public Utilities Commission requirement. As with all at-grade crossings, the at-grade crossing contained in the FEIR would have required approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure. The city-funded grade separation removes the need for at-grade crossing protection.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; since no significant impacts were identified for the grade separation, no additional mitigation measures are required. As noted above, the replacement of an at-grade crossing with a grade-separated crossing removes the need for at-grade crossing protection.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

2. Project Refinement: The City has requested a possible additional pedestrian access route, subject to local funding approval by the City of Arcadia, at the east end of the light rail station in order to connect to Wheeler Avenue. This affects Station Option A shown on Figure 2-35 in the FEIR.

Providing a pedestrian access from Wheeler Avenue would require a combined, enclosed stair and ramp structure or an enclosed elevator and stair combination to be built within the railroad right of way. This is because the rail alignment is about 12 feet higher than Wheeler Street. As with all pedestrian access routes, this additional route would require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; no significant effects associated with pedestrian access were identified in the FEIR for this or any other station. As reported in the FEIR, all pedestrian access for transit rail stations must meet the requirements of the Americans with Disabilities Act and receive approval from the California Public Utilities Commission.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the effects associated with the proposed additional pedestrian access would be similar to those identified in the FEIR for access to the station from its western end from First Street.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no infeasible mitigation measures for the pedestrian access were identified in the FEIR. All pedestrian access routes must meet the requirements of the Americans with Disabilities Act and receive approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new types of mitigation would be required for the proposed additional pedestrian access. All pedestrian access routes must meet the requirements of the Americans with Disabilities Act and receive approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

## **Monrovia**

1. Project Refinement: The City of Monrovia is advancing work on the Station Square transit-oriented development project that adjoins the Monrovia light rail station (shown on Figure 2-37 in the FEIR). As reported in the FEIR, the City project will provide the transit parking to serve the light rail service. In analyzing the effects of the proposed development project



which has been further defined since the analysis in the FEIR, the City has determined that Myrtle Avenue needs to be widened to accommodate traffic. The effect to the Gold Line Project is a need to redesign the at-grade crossing of Myrtle Avenue with the rail line and the adjoining intersection of Myrtle Avenue/Duarte Road.

The City of Monrovia is the CEQA lead agency for the assessment of impacts associated with the Station Square transit-oriented development; the need to widen Myrtle Avenue arises from the City's project, not from the Gold Line Project. A wider Myrtle Avenue than was known at the time of the FEIR needs to be incorporated into a modified design of the at-grade crossing of the rail line and the immediately adjoining intersection of Myrtle Avenue/Duarte Road. The at-grade crossing is subject to the approval of the California Public Utilities Commission.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; Table 3-15.21 in Chapter 3 of the FEIR indicated the intersection of Myrtle/Duarte would be subject to a significant impact (Level of Service-LOS E) in the forecast year 2030. Mitigation measures identified in Chapter 3, Section 3-15.3.2 require the addition of a new exclusive right turn lane to the southbound approach by removing the north leg median barrier and re-striping the southbound approach to provide one exclusive left turn lane, two through lanes, and one exclusive right turn lane. The required mitigation defined in the 2007 FEIR can be accommodated in a wider Myrtle Avenue, thus the previously identified impact will still be mitigated to a less than significant level (LOS D as shown in Table 3-15.29).

Table 3-15.23 reported the grade-crossing features to be provided to address the safety requirements of the California Public Utilities Commission and avoid a significant impact: four quadrant gates and appropriate warning signs, and interface with the traffic signal system. The modified at-grade crossing to accommodate a wider Myrtle Avenue would retain these same features.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the intersection of Myrtle/Duarte was identified in Table 3-15.21 in Chapter 3 of the FEIR as being subject to a significant impact (LOS E) in the forecast year 2030. The effects of a wider Myrtle Avenue would not be substantially more severe than the LOS E shown in the FEIR.

Table 3-15.23 in the FEIR identified the grade-crossing features to be provided to address the safety requirements of the California Public Utilities Commission and avoid a

significant impact. A wider Myrtle Avenue would not create an impact beyond that which is already addressed by the Gold Line Project grade-crossing design features, and would not preclude any of the previously identified mitigation measures.

*Would the project change need mitigation measures previously found not to be feasible?*

No; there were no mitigation measures found to be infeasible. The potential traffic impacts at this intersection are already mitigated to a less than significant level (LOS D, see Table 3-15.29), therefore, additional mitigation is not required. Further, all at-grade crossings require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; the potential traffic impacts at this intersection are already mitigated to less than significant levels. Therefore, further mitigation is not required. The widening of Myrtle Avenue would not impact the feasibility of the mitigation already adopted to reduce the impact to a less than significant level. The modified at-grade crossing would require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

2. Project Refinement: The Station Square project also results in a need to widen Duarte Road between Myrtle Avenue and California Avenue. The effect to the Gold Line Project is a need to accommodate this widening in the aforementioned redesign of the intersection of Myrtle Avenue/Duarte Road and redesign the adjoining at-grade crossing of the rail line.

The City of Monrovia is the CEQA lead agency for the assessment of impacts associated with the Station Square transit-oriented development; the need to widen Duarte Road arises from the City's project, not from the Gold Line Project. A wider Duarte Road than was known at the time of the FEIR needs to be incorporated into a modified design of the intersection of Myrtle Avenue/Duarte Road line and the immediately adjoining at-grade crossing of the rail. The at-grade crossing is subject to the approval of the California Public Utilities Commission.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; Table 3-15.21 in the FEIR indicated the intersection of Myrtle/Duarte would be subject to a significant impact (LOS E) in the forecast year 2030. Mitigation measures identified in Section 3-15.3.2 require the addition of a new exclusive right turn lane to the southbound approach by removing the north leg median barrier and re-striping the southbound approach to provide one exclusive left turn lane, two through lanes, and one exclusive right turn lane. A wider Duarte Road can still accommodate this mitigation measure. Following mitigation, the intersection of Myrtle/Duarte would function at LOS D (as shown in Table 3-15.29).

Table 3-15.23 identified the following grade-crossing features to be provided to address the safety requirements of the California Public Utilities Commission and avoid a significant impact: four quadrant gates and appropriate warning signs and interface with the traffic signal system. The modified at-grade crossing within a wider Duarte Road would retain these same features.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the intersection of Myrtle/Duarte was identified in Table 3-15.21 of the FEIR as being subject to a significant impact (LOS E) in the forecast year 2030. The effects of a wider Duarte Road would not be substantially more severe than the LOS E reported in Table 3-15.21.

Table 3-15.23 in the FEIR identified the grade-crossing features to be provided to address the safety requirements of the California Public Utilities Commission and avoid a significant impact. A wider Myrtle Avenue would not create an impact that is not already addressed by the Gold Line Project grade-crossing design features.

*Would the project change need mitigation measures previously found not to be feasible?*

No; the identified significant impact at Myrtle/Duarte was mitigated to less than significant (see Table 3-15.29), and a wider Duarte Road does not result in a need for additional mitigation. All at-grade crossings require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new mitigation would be required to accommodate the wider Duarte Road. The mitigation measures previously identified for the Myrtle/Duarte intersection in Chapter 3,

Section 3-15.3.2 can be accomplished in the wider roadway. The modified at-grade design crossing would require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

3. Project Refinement: The planned widening of Duarte Road results in a need to shift the light rail tracks northward within the existing railroad right of way. The shift would be incorporated within the redesign of the at-grade crossings at Myrtle Avenue and California Avenue.

The widening of Duarte Road arises from the City of Monrovia's evaluation of the Station Square project. The effect to the Gold Line Project would be a shift of the LRT rail alignment within the rail right of way from that shown and assessed in the FEIR. The potential impacts of this shift would be related to traffic at the above-noted intersections with Duarte Road, or noise and vibration to properties adjoining the railroad right of way. As discussed below, the shift in alignment does not result in significant impacts, nor in changes in mitigation.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; Table 3-15.23 in Chapter 3 reported the grade-crossing features to be provided at Myrtle Avenue. Four quadrant gates and appropriate warning signs, and interface with the traffic signal system are the Gold Line Project standard for all at-grade crossings (including California Avenue) that address the safety requirements of the California Public Utilities Commission and avoid a significant impact. The modified at-grade crossings to accommodate a wider Duarte Road would retain these same features, and would not be affected by a northward shift in rail location.

Properties located adjacent to the north side of the railroad right of way are industrial uses and are not noise- or vibration-sensitive receptors. The shift in rail alignment would thus not create impacts to noise- or vibration- sensitive properties.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the intersection of California/Duarte was identified in Table 3-15.21 of the FEIR as not being subject to a significant impact in the forecast year 2030. The effects of a modified intersection design would not be substantially more severe than the Level of Service (LOS) D reported in Table 3-15.21; LOS D is an acceptable level of performance and does not require mitigation.

Table 3-15.23 in the FEIR reported the grade-crossing features to be provided to address the safety requirements of the California Public Utilities Commission and avoid a significant impact. A modified intersection design would still accommodate the necessary safety requirements, and thus would not create an impact that is not already addressed by the Gold Line Project grade-crossing design features.

Properties located adjacent to the north side of the railroad right of way are industrial uses and are not noise- or vibration-sensitive receptors. The shift in rail alignment would not create impacts to noise- or vibration- sensitive properties.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no infeasible mitigation measures were identified in the FEIR. Since the mitigation specified in the FEIR would result in the intersection functioning at LOS D, no additional mitigation would be required as a result of the redesign of the at-grade crossings at Myrtle Avenue and California Avenue. All at-grade crossings require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new mitigation would be required to accommodate a wider Duarte Road. The modified at-grade crossing designs at Myrtle and California associated with the widening of Duarte Road would be very similar to those identified in the FEIR and would result in the intersection functioning at LOS D. As noted above, the shift in rail alignment would not create noise or vibration impacts to adjoining properties and thus no mitigation would be needed.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

4. Project Refinement: Improvements along Duarte Road afford the City of Monrovia, in cooperation with the City of Duarte, the opportunity to realign Mountain Avenue to eliminate a current jog in the road way alignment. The effect to the Gold Line Project is a need to redesign the intersection of Mountain Avenue/Duarte Road and the adjoining at-grade crossing of the rail line.

The intersection of Mountain Avenue with Duarte Road currently includes an off-set. The Cities' planned improvements to Duarte Road provide the opportunity to create a more desirable configuration. The effect of this to the Gold Line Project would be a modification of the designs shown in the FEIR for the intersection of Mountain Avenue/Duarte Road and the adjoining at-grade crossing of the rail line.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; Table 3-15.21 in the FEIR indicated the intersection of Mountain/Duarte would function at LOS C and thus would not be subject to a significant impact in the forecast year 2030, even with the less-than-desirable off-set of Mountain Avenue. A re-designed intersection to address the off-set would not create a significant impact.

Table 3-15.23 identified the grade-crossing features to be provided to address the safety requirements of the California Public Utilities Commission and avoid a significant impact: four quadrant gates and appropriate warning signs and interface with the traffic signal system. The modified at-grade crossing to accommodate a reconfigured Duarte/Mountain intersection layout would retain these same features.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the intersection of Mountain/Duarte was not identified in Table 3-15.21 of the FEIR as being subject to a significant impact in the forecast year 2030. The effects of a modified intersection design would not be substantially more severe than the Level of Service (LOS) C reported in Table 3-15.21; LOS C is an acceptable level of performance that does not require mitigation.

Table 3-15.23 in the FEIR reported the grade-crossing features to be provided to address the safety requirements of the California Public Utilities Commission and avoid a significant impact. A modified intersection design would not create an impact that is not already addressed by the Gold Line Project grade-crossing design features.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no mitigation measures were found to be infeasible. The potential traffic impacts at this intersection are already mitigated to a less than significant level; therefore, further mitigation is not required. All at-grade crossings require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new mitigation would be required to accommodate the modified intersection of Duarte/Mountain. Even with the less-than-desirable off-set of Mountain Avenue, no mitigation was shown to be needed (see Table 3-15.21). Improved geometrics provided by realigning Mountain Avenue would not decrease the future LOS C shown in Table 3-15.21. The modified at-grade crossing design would require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

5. Project Refinement: Traction power substation (TPSS) number 3 (shown in Chapter 2, Figure 2-53) would be shifted to be located within railroad right of way, but would remain in the same general area.

Ongoing analysis of traction power needs have indicated that the TPSS location identified in the FEIS can be shifted into existing railroad right of way. The new location is within the same general area.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; the FEIR identified no significant impacts associated with any TPSS, thus the minor change in location, which is still within the existing rail right-of-way, will not have more significant effects than discussed in the FEIR.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the FEIR identified no significant impacts associated with any TPSS, and the minor shift in location would not change this conclusion.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no infeasible mitigation was identified in the FEIR for any TPSS, and the impacts associated with TPSS's are already less than significant levels, therefore, further mitigation is not required.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new mitigation would be required as a result in the shift in location.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

## **Irwindale**

Project Refinement: The station location needs to be shifted approximately 75 feet eastward from the location shown in the FEIR (Chapter 2, Figure 2-39) to provide better pedestrian access from the station parking area and bus stop. The original layout created a need to walk parallel to the tracks if patrons crossed to the rail alignment on the west side of the Irwindale Avenue overhead structure. Pedestrian access would be improved by shifting the station location approximately 75 feet eastward, reducing the distance that patrons would need to walk adjacent to the tracks to reach the station platforms.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; the FEIR did not identify any significant impacts associated with the original station site. This is in large part due to its location adjoining an industrial area; potential effects for operation of the station would not affect any sensitive receptors.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the FEIR did not identify any other significant impacts associated with the original station site. This is in large part due to its location adjoining an industrial area; potential



effects for operation of the station would not affect any sensitive receptors. The shift in station location would improve pedestrian access to the station platforms.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no infeasible mitigation measures were identified for any station or station access.

There are no impacts associated with the original station location that required mitigation.

All pedestrian access routes require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new mitigation would be required enable the shift in location. All pedestrian access routes require approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

## **Azusa**

1. Project Refinement: A shift in the location of freight tracks from the south side to the north side within the railroad right of way is no longer necessary. This removes the need for a fly-over structure near Virginia Avenue that was reported in the FEIR (Chapter 2, Section 2.3-2-2).

When the FEIR was prepared, it was assumed that the current freight tracks would need to be shifted to the north side of the rail right of way to serve the customers at the Azusa Wye. This shift would require a fly-over structure for the light rail to move it to the south side of the right of way. The need for shifting the tracks no longer occurs and the fly-over structure is not needed.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; the FEIR identified no significant impacts associated with the fly-over structure.

Traffic at Virginia Avenue would now cross the rail alignment at-grade. Four quadrant

gates and appropriate warning signs, and interface with the traffic signal system are the Gold Line Project standard for all at-grade crossings (including Virginia Avenue) to address the safety requirements of the California Public Utilities Commission and avoid a significant impact.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the FEIR identified no significant impacts associated with the fly-over structure. Traffic at Virginia Avenue would now cross the rail alignment at-grade. Four quadrant gates and appropriate warning signs, and interface with the traffic signal system are the Gold Line Project standard for all at-grade crossings (including Virginia Avenue) to address the safety requirements of the California Public Utilities Commission and avoid a significant impact. Traffic on Virginia Street is relatively low volume (less than 6,000 vehicles per day), as indicated in Table 3-15.5 in the FEIR. Table 3-15.9 indicates that intersection of Virginia with Foothill Boulevard has a rating of LOS A in 2005; Table 3-15.12 indicates the intersection would have a rating of LOS C in 2030 for the No Build condition (which represents conditions without the fly-over). Intersections functioning at LOS C do not require mitigation.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no infeasible mitigation was identified in the FEIR for the fly-over. No infeasible mitigation for traffic impacts was identified in the FEIR. As noted above, the intersection of Virginia with Foothill Boulevard would not require mitigation measures as a result of removing the fly-over.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new mitigation would be required by elimination of the fly-over. Four quadrant gates and appropriate warning signs, and interface with the traffic signal system are the Gold Line Project standard for all at-grade crossings (including Virginia Avenue) to address the safety requirements of the California Public Utilities Commission and are not mitigation measures. These standards ensure that no impacts will result, and no mitigation measures are required. This at-grade crossing requires approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures*

*that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

2. Project Refinement: Retaining the freight tracks in their current location avoids the need to modify the Azusa Wye railroad structure. The modification was needed to provide freight delivery to a local business if the freight line were shifted to the north side of the rail right of way. With the freight tracks retained in their current location, deliveries to that business will continue, but to a different portion of their facility via an existing railroad spur on the north side of the business.

Ongoing discussion with Totten Tubes, Inc., has revealed that rail freight deliveries to the facility can occur to a different portion of their site than was known at the time the FEIR was prepared. This new delivery location eliminates the need for modification and access from the Azusa Wye railroad structure.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; the FEIR incorporated a modification of the Azusa Wye railroad structure in order to maintain freight rail delivery and thus avoid a significant impact. The shift in freight delivery would not change the vehicular traffic movements that now occur to and from the business.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the change in freight delivery to the business will not significantly affect the overall functioning of the business. The shift in freight delivery affects only operations internal to the site and would not change the vehicular traffic movements that now occur to and from the business.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no infeasible mitigation was identified in the FEIR for freight access to the business. The FEIR included modifications to the Azusa Wye within the project definition to address freight access needs of the business.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new mitigation would be required enable the shift in freight delivery to the business. The shift in freight delivery would not change the vehicular traffic movements that now occur to and from the business and would not create needs for mitigation.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

3. Project Refinement: The Alameda Station in downtown Azusa would be changed from side platforms as shown in the FEIR (Chapter 2, Figure 2-40) to a center platform configuration to better fit within the slightly curved railroad right of way.

The removal of the need for shifting freight rail tracks within the railroad right of way described above, combined with the slight curve in that right of way, would enable the Alameda Station platforms to be modified to the more efficient center platform configuration.

*Would the project change have one or more significant effects not discussed in the FEIR?*

No; the FEIR identified no significant impacts associated with the platform configuration. The revised configuration would be similar to other such stations in the system. The change in platform configuration does not create changes in the overall relationship of the LRT station to adjoining properties. As with all transit rail stations, the design must meet the requirements of the Americans with Disabilities Act and receive approval from the California Public Utilities Commission.

*Would the project change have significant effects that will be substantially more severe than shown in the previous EIR?*

No; the FEIR identified no significant impacts associated with platform configurations. The revised configuration would be similar to other such stations in the system. As with all transit rail stations, the design the design must meet the requirements of the Americans with Disabilities Act and receive approval from the California Public Utilities Commission.

*Would the project change need mitigation measures previously found not to be feasible?*

No; no infeasible mitigation was identified in the FEIR for platform configurations, because all impacts either are or are reduced to less than significant levels. As with all transit rail stations, the design must meet the requirements of the Americans with Disabilities Act and receive approval from the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Would the project change need new mitigation measures which are considerably different from those in the FEIR?*

No; no new mitigation would be required for the change in platform configuration. Rail station design is subject to approval of the California Public Utilities Commission. Such approval is a project requirement, not a mitigation measure.

*Conclusion: The project refinement would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR to address this project refinement.*

## **Potential for Cumulative Impacts**

A requirement of CEQA Guidelines Section 15130 is to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. As defined in CEQA Guidelines Section 15065(a)(3), cumulative considerable means "that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

The following cumulative impacts analyses address the defining by answering two questions:

- *Do the incremental impacts of project refinements, when considered together, compound or increase other environmental impacts?*
- *Will cumulative impacts result from individually minor but collectively significant projects taking place over a period of time?*

To properly frame these questions, several of the project refinements are considered in groups of similar project changes:

*Changes at stations-* this encompasses the proposed additional pedestrian access for the Arcadia Station, the shift in location for the Irwindale Station, and the change in platform configuration for the Azusa Alameda Station.

*Changes in traffic-* additional traffic volumes in Monrovia rising from the City's Station Square project and the resulting effects to these Gold Line Project components: changes in the widths/alignments of Myrtle Avenue, Duarte Road, and Mountain Avenue; changes in intersection design at Myrtle/Duarte and Mountain/Duarte; and changes in at-grade rail crossing designs at Myrtle/Duarte and Mountain/Duarte in Monrovia).

Other project refinements are addressed individually.

## Discussion

*Changes at Stations:* The FEIR did not identify significant impacts associated with the location or configuration of stations to be built in the cities of Arcadia, Monrovia, Duarte, Irwindale or Arcadia. The station locations were selected in consultation with each city to help ensure that, in fact, benefits from the stations accrued to each city. Station locations generally were linked to current and planned activity centers, for which transit service would be a desirable supporting element. No cumulative impacts associated with the stations were identified in the FEIR. None of the design refinements for the Arcadia, Irwindale and Azusa Alameda Stations would create significant impacts and thus would not contribute to a significant cumulative impact. The revised station plans would be very consistent with those described and assessed in the FEIR.

*Conclusion:* *The minor changes at stations would not change significant effects discussed in the FEIR, would not result in effects more severe than shown in the FEIR, would not require mitigation measures previously found feasible, and would not require mitigation measures that are different than shown in the FEIR. This lack of effects indicates there is no need for a subsequent EIR.*

*Changes in Traffic:* The FEIR accounted for an increase in traffic on Myrtle Avenue by forecast year 2030, as reflected in the Level of Service (LOS) E reported in Table 3-15.21 for the intersection of Myrtle/Duarte. The FEIR included an intersection design to mitigate that impact, so that the resulting intersection would function at LOS D (see Table 3-15.29). Although the City of Monrovia's more recent analysis of traffic generated by the City's Station Square project indicates that widening of Myrtle Avenue and Duarte Roads are needed, the forecasted level of service for the Myrtle/Duarte was shown in that project's EIR (Table 3.10-6) to be LOS E, the same as in the FEIR. The incremental difference in traffic forecasted by the City's more recent analysis compared to that in the FEIR will be mitigated by redesign of the Myrtle/Duarte intersection. The refined design of Myrtle/Duarte intersection to accommodate the additional traffic arising from the City's Station Square project will be similar to that defined in the FEIR and thus the redesigned intersections would not contribute to a significant cumulative impact. The City's proposed mitigation measure calls for implementing its General Plan Circulation Element to include "continued coordination with the Metro Gold Line Foothill Construction Authority as the final plans for the light rail transit system are developed and implemented...to implement localized intersection improvements... and...to implement intersection improvements identified as mitigation measures for specific development projects as necessary."

Even with the less-than-desirable offset of Mountain Avenue, the intersection was shown to function at LOS C in 2030 in the FEIR. The redesign of the Mountain/Duarte intersection in response to the City's desire to realign Mountain Avenue would result in a similar LOS to that defined in the FEIR and thus would not contribute to a significant cumulative impact. As noted above, implementation of the City's General Plan Circulation Element calls for coordination with the Construction Authority in mitigation of impacts at intersections.

The at-grade crossings of the Gold Line are all designed in accordance with California Public Utilities Commission requirements to provide safety and thus avoid significant impacts. The redesigned at-grade crossings of Myrtle Avenue and Mountain Avenue to accommodate City-generated traffic effects will be similar to those defined in the FEIR and thus the redesigned intersections would not contribute to a significant cumulative impact.

*Santa Anita Grade Separation:* The FEIR includes the Santa Anita grade separation as an option. The impact analyses reported in the FEIR did not identify any significant impacts associated with the grade separation, nor a contribution to a significant cumulative impact.

*Change in rail freight line alignment within the rail right of way:* In the FEIR, ongoing freight delivery service to Totten Tubes, Inc., by the BNSF Railway would have required a shift of the light rail line to the south side of the railroad right of way. Providing ongoing freight delivery service required the construction of a fly-over at Virginia Street to shift the light rail line to the south side of the rail right of way and also modifications to the Azusa Wye railroad structure (see Chapter 2, Figure 2-17). Subsequent to the FEIR, it was determined that freight delivery to Totten Tubes could occur via a different freight rail line, with the net results that the BNSF tracks can remain on the south side of the railroad right of way. Consequently, the need for the fly-over is removed, and the Azusa Wye does not need to be modified. None of these previous elements were identified in the FEIR as having significant impacts, nor contributing to a cumulative impact. The design refinements (which retain the freight line on the south side of the railroad right of way) would not cause individual significant impacts and thus would not contribute to cumulative impacts. The amount of freight service to Totten Tubes that would shift from one freight railroad to another is an extremely small percentage of the total freight movement in the region and would not create significant local impacts, nor contribute to cumulative impacts.

## Consideration of Green House Gases

Subsequent to the approval of the FEIR in 2007, CEQA was amended in response to the passage of the California Global Warming Solutions Act of 2006 (AB 32) through the provisions of Senate Bill 97. SB 97 (Chapter 185, 2007) required the Governor's Office of Planning and Research (OPR) to develop draft CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." OPR is required to "prepare, develop, and transmit" the guidelines to the Natural Resources Agency on or before July 1, 2009.

Although the Metro Gold Line Foothill Extension Construction Authority met all CEQA obligations in effect at the time of its approval of the Segment 1 FEIR in February 2007, under its Lead Agency responsibilities, the Authority has chosen to discuss the Project's relationship to AB 32's goals for reducing green house gases in this Addendum.

On April 13, 2009, OPR submitted proposed amendments to the state CEQA Guidelines for greenhouse gas emissions. These proposed CEQA Guideline amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in draft CEQA documents. Within the draft guideline amendments, OPR proposed a new question in the CEQA Initial Study Checklist to address greenhouse gas emissions:

*Would the project:*

- 1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?*

There would be no significant impact on the environment.

- 2. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

This Project is consistent with all known plans of reducing the emissions of greenhouse gases.



## **Executive Summary**

An analysis was conducted to determine the Gold Line Foothill Extension – Pasadena to Montclair (Full Build Alternative) and Segment 1 (Pasadena to Azusa) projects' impact on regional greenhouse gas (GHG) emissions. Using projected regional vehicle miles and hours traveled data for the roadways, the estimated power requirements for the light rail propulsion and emission factors derived from the California Air Resource's Boards EMFAC program and the US Department of Energy GHG emission profile for energy generation in California, GHG emission burdens were estimated. As shown in Table 1, the project is predicted to produce a reduction in GHG emissions compared to the No Build Alternative in 2025. It should be noted that the science of GHG estimation, particularly on a project level basis is evolving and the results presented should be used as an indicator between alternatives rather than as absolute values.

## **Introduction**

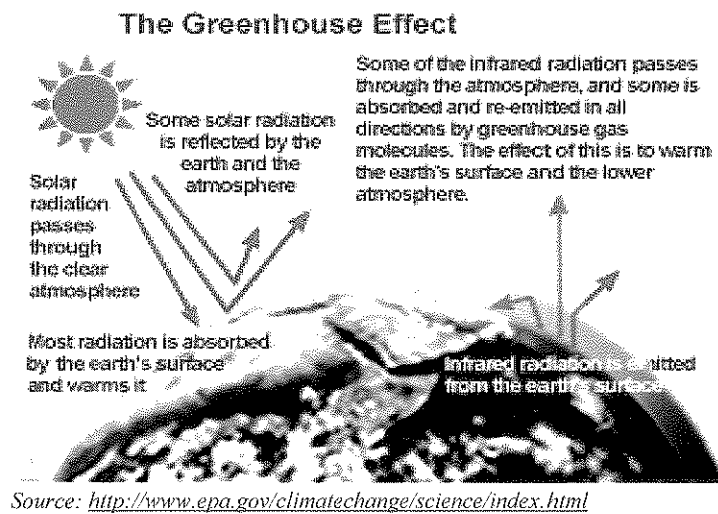
Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are necessary to life as we know it because they keep the planet's surface warmer than it otherwise would be. This is referred to as the Greenhouse Effect (Figure 1). As concentrations of greenhouse gases are increasing, however, the Earth's temperature is increasing. According to National Oceanic and Atmospheric Administration (NOAA) and National Aeronautics and Space Administration (NASA) data, the Earth's average surface temperature has increased by about 1.2 to 1.4°F in the last 100 years. Eleven of the last twelve years rank among the twelve warmest years on record (since 1850), with the warmest two years being 1998 and 2005. Most of the warming in recent decades is very likely the result of human activities. Other aspects of the climate are also changing, such as rainfall patterns, snow and ice cover, and sea level.

Some GHG, such as carbon dioxide, occur naturally and are emitted to the atmosphere through natural processes and human activities. Other GHG (e.g., fluorinated gases) are created and emitted solely through human activities. The principal GHG that enter the atmosphere because of human activities are described below.

**Carbon Dioxide (CO<sub>2</sub>).** Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

**Methane (CH<sub>4</sub>).** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

**Figure 1: The Greenhouse Effect**



**Nitrous Oxide (N<sub>2</sub>O).** Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

**Fluorinated Gases.** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (e.g., chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases (High GWP gases).

Greenhouse gases differ in their ability to trap heat. For example, one ton of emissions of CO<sub>2</sub> has a different effect than one ton of emissions of methane. To compare emissions of different greenhouse gases, inventory compilers use a weighting factor called a “Global Warming Potential” or “GWP.” To use a GWP, the heat-trapping ability of one metric ton (1,000 kilograms) of CO<sub>2</sub> is taken as the standard, and emissions are expressed in terms of CO<sub>2</sub> equivalent, but can also be expressed in terms of carbon equivalent. For mobile source analyses based on fossil fuel consumption, CO<sub>2</sub> is the predominant greenhouse gas emitted; therefore this analysis will focus on CO<sub>2</sub> emission burdens generated by the project’s energy consumption.

### **Regulations**

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization’s Intergovernmental Panel on

Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years.

California has been at the forefront of climate change regulation in the US. In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. Assembly Bill 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by EPA in December 2007. See *California v. Environmental Protection Agency*, 9th Cir. Jul. 25, 2008, No. 08-70011. However, on January 26, 2009, it was announced that EPA will reconsider their decision regarding the denial of California's waiver. On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will take effect in 2012. This standard is the same standard that was proposed by California, and so the California waiver request has been shelved.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

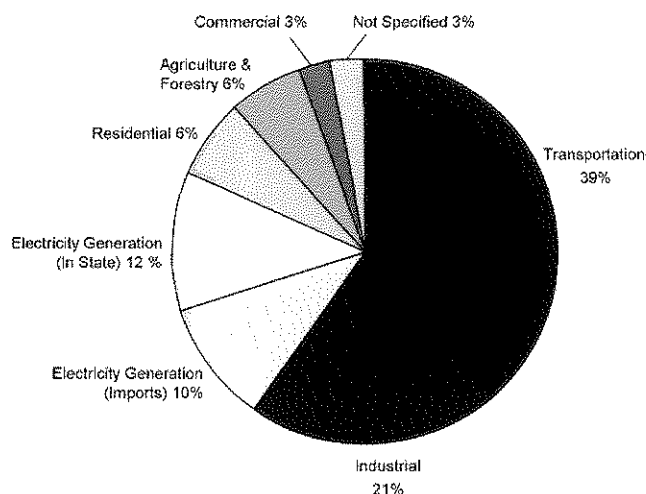
Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHG as a pollutant under the Clean Air Act (*Massachusetts vs. Environmental Protection Agency et al.*, 549 U.S. 497 (2007)). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the

authority to regulate GHG. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions.

### Existing Conditions

The California GHG Inventory compiles statewide anthropogenic GHG emissions and sinks. It includes estimates for carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). The current inventory covers years 1990 to 2004. As shown in Figure 2, transportation sources account for 39% of GHG emissions in California, making it the largest single source of GHG emissions in the statewide. To achieve GHG emission reduction goals, ARB is committed to building upon their past success in reducing criteria and toxic air pollutants from transportation and goods movement. GHG reductions will come from cleaner vehicles, lower-carbon fuels, and reduction in vehicle miles traveled.

**Figure 2: 2006 GHG emissions by**



Source: <http://www.arb.ca.gov/cc/inventory/data/graph/graph.htm>

### Assessment

The project is predicted to impact regional VMT levels on the roadway network and will require power for propulsion of the light rail. Changes in roadway VMT and power requirements will affect CO<sub>2</sub> emission levels. To determine vehicular CO<sub>2</sub> emission estimates, emission factors from CARB's EMFAC2007 emission factor program were applied to regional VMT estimates with and without the project. As shown in Table 1, the Foothill Extension Full

Build Alternative is predicted to reduce CO<sub>2</sub> roadway emissions by approximately 0.04%. The Foothill Extension Segment 1 Alternative is predicted to reduce CO<sub>2</sub> roadway emissions by approximately 0.01%.

The light rail system will require power to propel the vehicles. Energy requirements were calculated in the energy section of the FEIR and are shown in Table 1. Emission rate data to determine the amount of CO<sub>2</sub> generated per kilowatt hour was obtained from the US Department of Energy ([http://www.eia.doe.gov/oiaf/1605/emission\\_factors.html](http://www.eia.doe.gov/oiaf/1605/emission_factors.html)). By applying this factor to the estimated energy use, the LRT is predicted to increase CO<sub>2</sub> LRT emissions by approximately 68% for the Foothill Extension Full Build Alternative and 55% for the Foothill Extension Segment 1 Alternative.

In addition to the energy required to propel the vehicles, energy will be required for the stations and maintenance and storage facilities. Energy requirements were calculated in the energy section of the FEIR and are shown in Table 1. Emission rate data to determine the amount of CO<sub>2</sub> generated per kilowatt hour was obtained from the US Department of Energy ([http://www.eia.doe.gov/oiaf/1605/emission\\_factors.html](http://www.eia.doe.gov/oiaf/1605/emission_factors.html)).

As shown in Table 1, combining the estimated decrease in CO<sub>2</sub> roadway emissions with the estimated increase in CO<sub>2</sub> light rail emissions (propulsion, stations, maintenance and storage facilities), the project is predicted to have a minimal effect on CO<sub>2</sub> emission burdens. Under the Foothill Extension Full Build Alternative, the project is predicted to reduce CO<sub>2</sub> emission burdens by approximately 0.02%. Under the Foothill Extension Segment 1 Alternative, the project is predicted to increase CO<sub>2</sub> emissions burdens by approximately 0.01%. These percentages are beyond the accuracy of the modeling procedures and should be considered to be zero.

**Table 1: CO<sub>2</sub> Emission Burdens**  
**Gold Line CO<sub>2</sub> Regional Analysis (Year 2025)**

	No Build	Foothill Extension Full Build Alternative	Foothill Extension Segment 1 Alternative
<b>Roadways</b>			
VMT (millions)	150,481.5	150,420.5	150,465.5
<b>LRT Power</b>			
Billions Btus	338	569	524
<b>LRT Facilities</b>			
MWH	0	881	755
<b>Roadway Emission Burden</b>			
CO <sub>2</sub> (Metric Tons/Year)	107,309,379	107,264,823	107,296,941
% Change from No Build	--	-0.04%	-0.01%
<b>LRT Emission Burden</b>			
CO <sub>2</sub> (Metric Tons/Year)	34,670	58,365	53,749
% Change from No Build	--	68%	55%
<b>LRT Facilities Emission Burden</b>			
CO <sub>2</sub> (Metric Tons/Year)	0	308	264
<b>Total.</b>			
CO <sub>2</sub> (Metric Tons/Year)	107,343,049	107,323,496	107,350,690
% Change from No Build	--	0.0%	0.0%

**Data Sources:**

*Vehicle Miles Traveled and Speed (PBQD, 2005 - Air Quality Technical Report)*

*LRT Power consumption - Table 3-6.2 - Gold Line Foothill Extension - Pasadena to Montclair Final EIR, February, 2007*

*Roadway CO<sub>2</sub> Emission Factor = 713.01 Grams/mile @16 mph for LA County as per EMFAC2007*

*CO<sub>2</sub> Power Emission Rate = 0.35 Metric Tons/Mwh) - US Department of Energy [http://www.eia.doe.gov/oiaf/1605/emission\\_factors.html](http://www.eia.doe.gov/oiaf/1605/emission_factors.html)*

The implementation of public transit projects, such as the Foothill Extension Full Build Alternative and Segment 1 Alternative, would remove automobiles from roadways and freeways, decreasing VMT and fuel usage. Lower fuel usage from roadway vehicles corresponds to a reduction of criteria pollutant and GHG emissions. Lowering VMT is one of the major strategies CARB is promoting to reduce GHG emissions. Currently transportation contributes 39% to the total GHG emission profile of the state. Though VMT is projected to increase as compared to existing levels, the project is predicted to help reduce this increase.

The project is predicted to lower roadway VMT in the study area as compared to the No Build Alternative. Consistent with the SCAG RTP and the Regional Air Quality Management Plan, the alternatives are an integral part in producing a net cumulative beneficial effect to the regional air quality resulting from the increased transit ridership and the anticipated reduction in automobile use. In addition to this quantified metric, the introduction of transit would create opportunities for transit oriented development around the six station areas and allow the cities to advance “smart” projects that wouldn’t exist without the Segment 1 project. Transit oriented development helps to further reduce traditional auto VMT, and though not quantified in this analysis, it is anticipated that the Segment 1 project will result in increased GHG emission reductions beyond those quantified in this analysis.

## Chapter 4: List of Preparers

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## EXHIBIT B

### PROJECT REFINEMENTS

#### Arcadia

1. The City will fund a grade separation to carry the light rail line over Santa Anita Avenue, which was addressed as an option in the FEIR.

The traffic impact analysis reported in Chapter 3-15 (Table 3-15.23) of the FEIR indicated that traffic volumes on Santa Anita Avenue that interface with light rail operations could be safely managed with four quadrant gates to supplement existing medians and appropriate warning signs. These design features were included in the Project approval in 2007. The City's funding of a grade separation removes the need for these design features since traffic on Santa Anita Avenue will pass unimpeded under the light rail line.

2. The City has requested a possible additional pedestrian crossing and passenger access at the east end of the light rail station in order to connect to Wheeler Avenue. This affects Station Option A (the preferred station location associated with the above-mentioned grade separation), shown in Chapter 2 (Figure 2-35) of the FEIR. This access would be connected to public streets and would provide more diverse distribution of passengers using the light rail station. A final decision on this possible change is subject to local funding approval by the City of Arcadia.

#### Monrovia

1. The City of Monrovia is advancing work on the Station Square transit-oriented development project that adjoins the planned Monrovia light rail station (shown on Figure 2-37 in Chapter 2 the FEIR). As reported in the FEIR, that project will provide the transit parking to serve the light rail service. In analyzing the effects of the proposed development project, which has been further defined since the analysis in the FEIR, the City has determined that Myrtle Avenue needs to be widened to accommodate traffic. The effect to the Gold Line Project is a need to redesign the at-grade crossing of Myrtle Avenue with the rail line and the adjoining intersection of Myrtle Avenue/Duarte Road.
2. The Station Square project also results in a need to widen Duarte Road between Myrtle Avenue and California Avenue. The effect to the Gold Line Project is a need to accommodate this widening in the aforementioned redesign of the intersection of Myrtle Avenue/Duarte Road and redesign the adjoining at-grade crossing of the rail line.

3. The planned widening of Duarte Road results in a need to shift the light rail tracks northward within existing rail right of way. The shift would be incorporated within the redesign of the at-grade crossings at Myrtle Avenue and California Avenue.
4. Improvements along Duarte Road afford the City of Monrovia, in cooperation with the City of Duarte, the opportunity to realign Mountain Avenue to eliminate a current jog in the roadway alignment. The effect to the Gold Line Project is a need to redesign the intersection of Mountain Avenue/Duarte Road and the adjoining at-grade crossing of the rail line.
5. Traction power substation (TPSS) number 3 (shown on Figure 2-53 in Chapter 2 of the FEIR) would be shifted to be located fully within railroad right of way, approximately ½ mile to the west (near the Santa Anita Wash) and would remain in the same general area.

#### Irwindale

1. The station location needs to be shifted approximately 75 feet eastward from the location shown in the FEIR (Chapter 2, Figure 2-39) to provide better pedestrian access from the station parking area and nearby bus stop.

#### Azusa

1. A shift in the location of freight tracks from the south side to the north side within the railroad right of way that was included in the approved Project in 2007 is not now needed. This removes the need for a fly-over structure near Virginia Avenue that was analyzed in the FEIR (Chapter Section 2.3-2-2, Figures 2-17 and 2-18).
2. Relocating the freight tracks to the north also included a modification of the Azusa Wye railroad structure to provide freight delivery to a local business. Subsequent to the FEIR, it was found that deliveries to that business can occur via a different rail line and modifications to the Wye are not needed.
3. The Alameda Station in downtown Azusa would be changed from side platforms as shown in the FEIR (Figure 2-40) to a center platform configuration to better fit within the slightly curved railroad right of way.