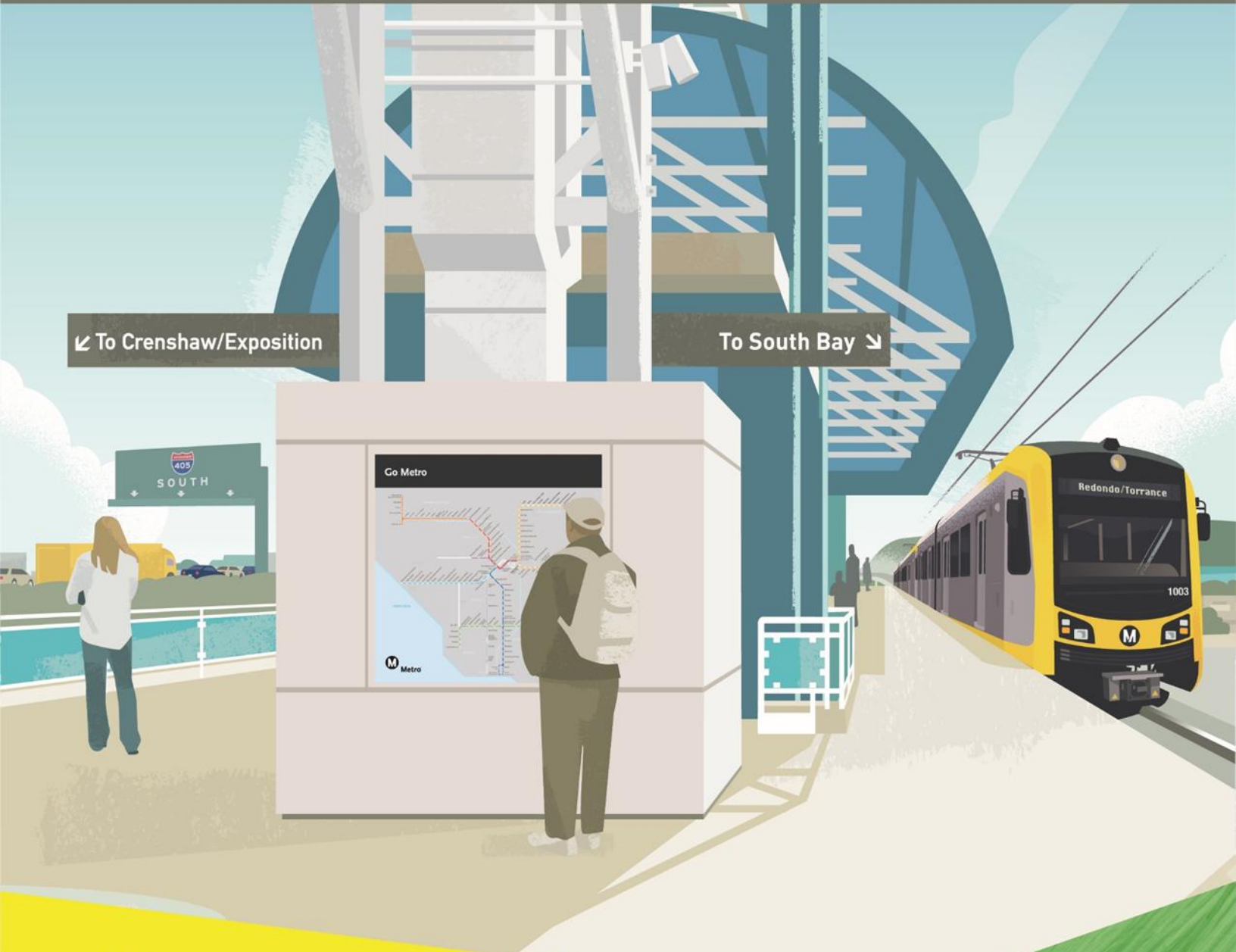


Final Environmental Impact Report Errata

January 2026

C LINE (GREEN) EXTENSION TO TORRANCE



C Line (Green) Extension to Torrance

Final Environmental Impact Report Errata

January 2026

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1. INTRODUCTION AND BACKGROUND

The Metro C Line (Green) Extension to Torrance (the project) would extend light rail transit service approximately 4.5 miles from the existing Redondo Beach (Marine) Station southeast along the Metro-owned Harbor Subdivision freight railroad right-of-way (Metro ROW) to the Mary K. Giordano Regional Transit Center in Torrance with two new stations. Based on new operating patterns implemented by Metro in 2025, the project would operate as the southern portion of the K Line with direct access to Los Angeles International Airport and connections to the Metro C and E Lines.

The Draft Environmental Impact Report (EIR) for the project was released to the public in January 2023. During a 61-day public comment period, Metro received approximately 2,200 comment submissions in the form of emails, voicemails, oral comments at public hearings, comment cards, letters, surveys, and petitions. After reviewing technical studies and comments on the Draft EIR, Metro staff recommended the 170th/182nd Grade-Separated Light Rail Transit Alternative (Hybrid Alternative) as the LPA since it best provides local and regional benefits, meets project needs and objectives, and addresses community concerns. Metro presented the staff recommendation to the Metro Planning & Programming Committee in April 2024 and the full Metro Board of Directors (Metro Board) in May 2024. Both meetings allowed for public comment. On May 23, 2024, the Metro Board selected the staff recommended Hybrid Alternative as the LPA and directed staff to complete the CEQA process. On September 11, 2025, Metro released the Final EIR, which was prepared in compliance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and the State CEQA Guidelines (14 Cal. Code. Regs., § 15000 et seq.).

Metro learned on October 27, 2025 that a technological issue resulted in one comment submission on the Draft EIR sent during the Draft EIR comment period not being recognized as received. As such, this comment was not responded to in the September 11, 2025 Final EIR. This Errata to the Final EIR has been prepared to respond to the comment letter that was inadvertently not responded to in the Final EIR. None of the comments or the responses included in this Errata contain any significant new information that would change the analysis and conclusions contained in the Final EIR, and the Final EIR is not substantially changed. Appendix 1-E, Errata to the Final EIR's Public Comments on the Draft EIR, modifies Appendix C, Public Comments on the Draft EIR, of the Final EIR to include a copy of the comment letter.

The complete EIR will consist of the Draft EIR, the Final EIR, and this Errata to the Final EIR.

2. RESPONSE TO COMMENTS ON THE DRAFT EIR

SUBMISSION 1992 IVES FAMILY

1992-1 The Draft EIR was circulated for 61 days, exceeding CEQA’s 45-day minimum requirement. While the comment characterizes this as a “few short weeks,” Metro provided substantial time for public review of the document. Regarding the length and detail of the Draft EIR, CEQA requires analysis of all potentially significant environmental impacts, which, for a large and complex infrastructure project such as this one, necessarily results in detailed documentation. The Executive Summary provides an overview of key findings for readers seeking a condensed discussion. The commenter’s observations about life expectancy do not diminish the significance of air quality analysis under CEQA. Life expectancy reflects many factors including healthcare access and lifestyle choices. Poor air quality is correlated with health burdens, even with overall favorable life expectancy statistics. Operation of the project is expected to improve regional air quality. See MR-4: Potential Negative Health Effects Related to Noise, Vibration, and Air Quality and MR-19: Project Benefits.

1992-2 The project would provide an additional transportation option for South Bay residents. It would not force anyone to use transit or a personal vehicle. The project does not include vehicle taxes, driving restrictions, or elimination of general-purpose traffic lanes. None of the alignments evaluated in the Draft EIR would prevent continued automobile use on existing roadways.

Although the Hawthorne Option would involve modifications to Hawthorne Boulevard to accommodate the support columns for the elevated guideway, including modifications to the median and reducing the number of northbound left-hand turn lanes at 177th Street from two to one, this would not eliminate general-purpose traffic lanes or require drivers to use transit instead of their personal vehicles. The 2023 Transportation Detail Report, published concurrently with the Draft EIR, also found that approximately 20 on-street parking spaces would be lost in the center median of Hawthorne Boulevard between 162nd Street and 171st Street in the City of Lawndale to accommodate columns for the elevated structure. The Trench Option, Hawthorne Option, and LPA would not have at-grade light rail crossings within the roadway network.

The purpose of the project is to improve regional mobility and connectivity by extending light rail service to underserved South Bay communities and providing connections to other Metro lines and regional destinations. The rail extension aims to offer travel time savings for transit users and help relieve congestion along the I-405 corridor by providing a reliable alternative to driving for those who choose to use it. See MR-19: Project Benefits.

1992-3 Metro has been exploring options for transit service along the Metro-owned right-of-way (ROW) for several decades, including a 2009 Alternatives Analysis and the 2018 Supplemental Alternatives Analysis, discussed in the Alternatives Considered and Dismissed Report (2023), published concurrently with the Draft EIR. The 2018 Supplemental Alternatives Analysis Report evaluated five alternatives including the No Project Alternative. In 2018, the Metro Board voted to approve two of the light rail alternatives to be carried forward for environmental analysis.

CEQA requires alternatives to be evaluated “in sufficient detail to allow meaningful evaluation, analysis, and comparison with the proposed project.” (CEQA Guidelines, § 15126.6(d).) It does not require identical amounts of text for each detail. If an alternative would cause a significant impact in addition to those that would be caused by the proposed project, “the significant effects of the alternative shall be discussed, but in less detail than the effects of the project as proposed.” (*Ibid.*)

Chapter 4, Evaluation of Alternatives, in the Draft EIR, analyzes alternatives including the CEQA-mandated No Project Alternative (under which no light rail extension would be built), a High-Frequency Bus Alternative, and the LPA (referred to in the Draft EIR as the 170th/182nd Grade-Separated Light Rail Transit Alternative). Consistent with CEQA Guidelines Section 15126.6(d), each alternative was evaluated in sufficient detail to allow meaningful evaluation, analysis, and comparison with the Elevated/At-Grade Alignment (including the route options). The commenter’s reference to “first, do no harm” appears to relate to the No Project Alternative, under which existing conditions would continue without the proposed transit improvement. The commenter’s preference for the No Project Alternative is noted. See MR-1: Selection of Alternatives.

1992-4 Project funding sources include Measure R and Measure M sales tax revenues approved by Los Angeles County voters for transit improvements, with additional funding from a California State Transportation Agency (CalSTA) grant, funds from Senate Bill (SB) 1, as well as 3% local match contributions. Regarding operational impacts, the Draft EIR analyzes noise and vibration impacts from light rail and freight train operations in Section 3.6, Noise and Vibration. Construction impacts, including haul trips, are analyzed throughout Chapter 3 of the Draft EIR. The commenter's opposition to rail near homes is noted. See MR-4: Potential Negative Health Effects Related to Noise, Vibration, and Air Quality.

1992-5 The Draft EIR’s analysis relies on Metro’s regional travel demand model, consistent with standard transportation planning and CEQA practice. Future year forecasting performed for the Draft EIR was necessary to evaluate a project’s long-term effects and is based on adopted regional growth projections from the Southern California Association of Governments (SCAG).

Regarding the assertion that noise and vibration impacts would “exceed legal standards from the get go,” Section 3.6, Noise and Vibration, identifies where project noise and vibration levels would exceed FTA impact thresholds and proposes mitigation measures to address those impacts. The analysis does not “brush off” operational impacts against future air quality benefits. CEQA requires analysis of all environmental topic areas, and Section 3.6 provides a detailed assessment of noise and vibration with specific mitigation measures identified. It should be noted that with implementation of Mitigation Measures MM-NOI-2 (Soundwalls), MM-NOI-3 (Low Impact Frogs), MM-NOI-4 (Quiet Zone Establishment), MM-VIB-4 (Low Impact Frogs), MM-VIB-5 (Resilient Fasteners), and MM-VIB-6 (Ballast Mats), as applicable, operational noise and vibration impacts of the LPA, the Trench Option, and the Hawthorne Option would be less than significant.

Each section of Chapter 3, Environmental Impacts, of the Draft EIR, includes a subsection that details the methodology used to determine the potential for environmental impacts, including sources of data and regulatory guidance. See Section 3.6, Noise and Vibration, of the Draft EIR, for a thorough analysis of the noise and vibration impacts of the three light rail

alignment options, as well as mitigation measures to reduce the noise and vibration impacts. See MR-2: Operational Noise Analysis Methodology and Impact Thresholds.

As concluded in the Draft EIR, the No Project Alternative would have significant and unavoidable impacts related to transportation, land use and planning, air quality, and greenhouse gas (GHG) emissions, while it would avoid the significant and unavoidable noise impact of the Elevated/At-Grade Alignment (referred to as “the Proposed Project” in the Draft EIR). The Metro Board selected the Hybrid Alternative as the LPA based on a range of considerations, including each alternative’s ability to meet the project objectives, minimize environmental impacts (including operational noise impacts), and respond to community input. However, this selection does not constitute project approval. All alternatives, including the No Project Alternative, remain under consideration until the Final EIR is certified, and the Metro Board takes final action on the project. See MR-1: Selection of Alternatives.

1992-6 The concerns about onboard security and disease transmissions relate to Metro’s operational policies rather than environmental impacts analyzed under CEQA. However, Metro takes safety very seriously and has established the Metro Transit Community Public Safety Department and maintains security measures for the system, including CCTV cameras, emergency call buttons, and coordination with local law enforcement. See MR-9: Light Rail Security.

1992-7 Regarding ventilation and air quality within rail cars, operational policies regarding vehicle ventilation and public health measures are determined by Metro independently of the CEQA process. Based on best practices, Metro has developed protocols to provide a safe environment for riders including the use of high-efficiency filters on all transit vehicles. Metro continues to explore additional ways to improve air filtration and ventilation. See <https://www.metro.net/about/la-metro-commits-to-national-effort-to-ensure-the-health-and-safety-of-returning-public-transit-riders-2/>.

1992-8 Please note that Tables 3.6-16 and 3.6-17 of the Draft EIR were corrected in the Final EIR as shown in Section 4.10. In addition, Table 4.5-1 was added to Section 4.21 of the Final EIR, showing the LPA’s combined light rail and freight relocation unmitigated and mitigated noise impacts. These corrections and additions do not alter the noise impact conclusions of the Draft EIR.

The EIR does not manipulate data. The noise analysis is based on the Federal Transit Administration’s (FTA’s) Transit Noise and Vibration Impact Assessment Manual (2018). The Manual’s General Assessment methodology used in the Draft EIR specifies that existing ambient noise and project noise are compared, not added together. Thus, the “Existing” column in Table 3.16-16 represents the total measured ambient noise at each receiver location, including all noise sources (traffic on nearby streets, existing freight operations, neighborhood activities, and any other environmental noise). The column showing “Unmitigated Freight and LRT Combined” represents only the noise from the project’s rail sources—light rail operations and, where applicable, relocated freight operations. These two values are plotted on the FTA impact criteria curves (Figure 3.6-2 of the Draft EIR) to determine whether the project noise level constitutes a significant impact given the existing ambient conditions. The impact is based on the relationship between these values, not their arithmetic sum.

The reasons the tables show higher “Existing” noise levels at certain receptors than is shown in the “Unmitigated Freight and LRT” combined column is that at locations where ambient noise is dominated by non-rail sources (such as traffic on I-405), the existing noise level can be higher than the light rail and freight combined noise level (which only includes rail sources). This does not mean that the project would reduce noise over existing ambient conditions. Rather, it means that the project’s rail noise contribution is less than the total existing ambient noise at that location. For instance, if a residence currently experiences 70 dBA from traffic and other existing sources, and the light rail and relocated freight combined would generate 65 dBA at that location, the “Existing” column in the table shows 70.0 and the “Unmitigated Freight and LRT Combined” column shows 65.0. The FTA methodology then evaluates whether adding a 65 dBA source to a 70 dBA environment constitutes a significant impact using the chart included as Figure 3.6-2 of the Draft EIR (Figure 4-2 in the FTA manual). If the project’s noise exceeds the FTA noise impact criteria established by existing conditions, then a significant operational noise impact is identified and mitigation is required. This same methodology is used in Table 3.6-17, 3.6-18, and Table 4.5-1 for the unmitigated and mitigated operational noise impacts of the Trench Option, Hawthorne Option, and LPA, respectively.

See MR-2: Operational Noise Analysis Methodology and Impact Thresholds and MR-3: Operational Noise Project Features and Mitigation Measures.

- 1992-9 CEQA requires use of significance thresholds to determine whether a project’s impacts rise to a level requiring mitigation or that cannot be mitigated (CEQA Guidelines, § 15064.7.). The thresholds are not arbitrary. They are based on regulatory standards, scientific judgment, and professional judgment regarding levels at which impacts may adversely affect the environment. The FTA’s noise and vibration impact criteria used in the Draft EIR, for example, are based on research into community reaction to transit noise and are widely applied in environmental review documents for transit projects. Refer to MR-2: Operational Noise Analysis Methodology and Impact Thresholds.

CEQA does require consideration of impact minimization. The Draft EIR evaluates alternatives that would avoid or reduce environmental impacts (Chapter 4, Evaluation of Alternatives) and identifies mitigation measures to reduce significant impacts to the extent feasible. Further, the project incorporates Project Features designed to ensure that environmental impacts are minimized as a part of the project’s design. The LPA was selected in part because it avoids the at-grade crossings that would cause more severe noise impacts from crossing bells.

Regarding visual impacts, the Draft EIR analyzes aesthetic effects including the overhead catenary system in Section 3.3, Aesthetics. The commenter’s concern that “any additional” impact should be considered significant reflects a different standard than CEQA requires, which bases significance determinations on whether impacts would result in substantial adverse changes to the environment.

See MR-10: Changes to Community Character.

- 1992-10 Under CEQA, increases in automobile travel time or delay are not considered environmental impacts. CEQA’s transportation analysis focuses on vehicle miles traveled (VMT) rather than level of service (LOS) or traffic delay. This policy change reflects the state’s priority of

reducing greenhouse gas emissions and vehicle trips rather than maintaining automobile travel speeds. See MR-11: Traffic Delay and Level-of-Service.

Although CEQA no longer requires LOS analysis, Metro conducted a traffic study to support the advanced conceptual design effort, helping to identify potential issues and improving the design of the project to minimize negative effects on traffic operations. These results are summarized in the 2023 Transportation Detail Report, published concurrently with the Draft EIR. Project-related travel-time benefits are discussed in the Ridership Summary Report 2025. See MR-19: Project Benefits.

No final decision has been made on the project. While the Metro Board selected the LPA for environmental review, all alternatives and options identified in the Draft EIR, including the No Project Alternative, remain under consideration until the Final EIR is certified and the Metro Board takes final action on the project.

Regarding quality-of-life concerns, see MR-10: Changes to Community Character.

- 1992-11 Cost effectiveness is not an environmental impact evaluated under CEQA. However, Metro has prepared cost and ridership information to inform the public and Metro Board decision-making on this project.

The phrase “as feasible” or “to the extent feasible” is standard CEQA terminology. It does not mean mitigation is optional. Rather, it recognizes that mitigation measures must be implemented to the maximum extent possible given technical, economic, legal, and other constraints. Where the Draft EIR identifies significant impacts, Metro is required to implement all feasible mitigation to reduce the impact to less than significant. (See CEQA Guidelines, §§ 15126.4 [consideration of mitigation measures], 15364 [defining “feasible”].)

The Contractor would not self-police. CEQA requires Metro, as lead agency, to adopt and enforce a Mitigation Monitoring and Reporting Program (MMRP) that ensures all required mitigation measures are implemented during project design, construction, and operation. (CEQA Guidelines, § 15097.) The MMRP represents an enforceable commitment. Metro’s construction oversight staff monitor contractor compliance with environmental commitments throughout construction.

- 1992-12 Temporary construction impacts are distinguished from long-term operational impacts. While the comment is correct that overall construction would occur over multiple years, work at any given location would be temporary, and would shift over time as construction progresses through different aspects and locations of the project. This means that individual properties and street segments would not experience active construction for the full 5 to 7-year period, although the commenter’s concern about the prolonged nature of construction disruptions along the corridor is acknowledged.

As described in the Draft EIR’s construction analyses, the project includes Project Features and would implement mitigation measures to address construction-related disruptions, including noise, dust, and vibration. However, even with implementation of construction mitigation measures MM-NOI-1: Noise Control Plan and MM VIB-1: Vibration Control Plan through MM-VIB-3: Pre- and Post-Construction Surveys, construction of the project (all alignment options) would result in significant and unavoidable noise and vibration impacts. In the event the Metro Board decides to approve the project, it would be required to adopt

a Statement of Overriding Consideration, finding that the project’s benefits outweigh its significant and unavoidable environmental impacts.

- 1992-13 The construction truck volumes cited by the commenter reflect peak periods for different construction activities and alignment options, as detailed in Tables 2.4-1, 2.4-2, 3.4-6, and 3.4-7. These figures represent project-wide construction activity, not the volume at any single location, and would vary by construction phase.

Under CEQA, traffic congestion or delay is not analyzed as an environmental impact. Section 3.1, Transportation, evaluates construction impacts related to vehicle miles traveled, transit, safety, and emergency access. See MR-11: Traffic Delay and Level-of-Service.

During construction, Project Feature PF-T-1: Construction Traffic Management Plan, as described on page 3.1-15 of the Draft EIR, would require Metro to coordinate with the local jurisdictions to minimize disruptions to the community. This plan would include details on street closure, detour routes, haul routes and staging areas and would be reviewed by the Cities of Lawndale, Redondo Beach, and Torrance. Consistent with standard Metro practice, the construction traffic management plan would account for peak hour congestion.

Detailed information on construction scheduling would be provided to the community in advance of any construction activities.

The commenter’s broader concern of whether construction impacts are justified by potential long-term benefits reflects the fundamental trade-off inherent in major infrastructure projects. The Draft EIR identifies construction impacts, including noise and vibration, as significant and unavoidable even with mitigation. If the Metro Board approves the project, it must adopt a Statement of Overriding Consideration finding that the project’s benefits (e.g., improved transit connectivity, reduced vehicle trips and emissions, and enhanced mobility) outweigh its significant and unavoidable environmental impacts.

- 1992-14 Section 3.14-4.2.1 of the Draft EIR explains that construction-related VMT would not result in a significant impact because: (1) construction is temporary, not creating permanent new trips; (2) construction workers would likely come from the regional labor pool rather than relocating to the area, avoiding new long-term commute patterns; and (3) while construction would generate truck trips and worker commutes, these would not constitute the type of “substantial increase” in VMT that CEQA Guidelines section 15064.3.

Regarding operations, CEQA Guidelines section 15064.3(b) creates a presumption that transportation projects which reduce or have no impact on VMT cause a less than significant impact. As a transit project providing a non-automobile travel option, the project is expected to reduce regional VMT by providing an alternative to automobile trips. The project therefore receives this presumption of a less than significant impact.

The commenter references footnote 3 regarding heavy truck VMT. This footnote pertains to operational VMT analysis methodology (specifically, whether to include heavy trucks in operational VMT calculations for modeling convenience), not the construction impact analysis. The footnote does not suggest construction truck VMT “should” be counted but was not.

The analysis is consistent with CEQA’s requirements regarding VMT under CEQA Guidelines section 15064.3, which focuses on whether a project would generate long-term increase in automobile travel that conflict with state climate goals. Construction haul trucks are part of

the existing regional construction fleet; they are not new vehicles being manufactured for or permanently added to the regional road network due to this project. Once construction is complete, these trucks would continue operation on other construction projects.

Moreover, including haul truck VMT in the analysis would not change the conclusion of a less than significant impact. The temporary construction-related VMT over the 5 to 7-year period would be substantially outweighed by the ongoing operational VMT reductions for the project. Implementation of the LPA is projected to decrease regional on-road VMT by 43,094 daily miles through transportation mode shift. This translates to reductions of approximately 14.9 million VMT per year. These sustained VMT reductions would far exceed any temporary increase from construction activities.

See also MR-11: Traffic Delay and Level-of-Service.

- 1992-15 Section 3.1, Transportation, and Section 3.15, Public Services, analyze the issue of emergency vehicle access during construction, and conclude that impacts would be less than significant. The analysis recognizes that construction activities, including traffic, would temporarily increase congestion and could require temporary street closures. However, the project area is located in an established urban area well-served by a surrounding roadway network with multiple parallel routes. Emergency vehicle drivers have various options for navigating congested areas, including using sirens to clear a path, driving in opposing traffic lanes or center turn lanes, or bypassing signals.

Moreover, Project Feature PF-T-1 requires preparation of a Construction Traffic Management Plan (CTMP) in coordination with local jurisdictions and emergency service providers. The CTMP must identify alternative routes to ensure fire and police response times remain compliant with National Fire Protection Association (NFPA) guidelines during construction. Emergency providers listed in Table 3.16-7 of the Draft EIR would receive advance notification and coordination regarding construction activities and detour routes.

The comment suggests the Draft EIR contains a logical inconsistency: if streets can accommodate construction traffic without emergency access impacts, a transit project is not needed. These analyses address different issues. Emergency access focuses on whether emergency vehicles can physically reach destinations using the roadway network's flexibility and multiple route options. The project addresses long-term regional mobility, transit connectivity, and greenhouse gas reductions, which are broader transportation goals beyond emergency response capabilities.

Regarding operational impacts, such impacts vary by alignment option. The Elevated/At-Grade Alignment would include two at-grade light rail crossings where crossing gates would periodically close for passing light rail trains. However, the grade-separated alternatives (the Trench Option, Hawthorne Option, and LPA) would fully separate light rail from the roadway network, eliminating light-rail at-grade crossings entirely.

See MR-12: Emergency Access for more information.

- 1992-16 As discussed in Section 3.3-3.1 of the Draft EIR, scenic vistas are unique views from public vantage points of focal points or panoramic views of broader geographic areas that have visual interest. The project area does not contain designated scenic vistas under this definition. Personal views from private property, such as the private view described by the comment, are not aesthetic resources under CEQA.

The project is located in a primarily urbanized area with a mix of architectural styles and land uses, and many properties already face the existing Metro ROW with freight rail operations. Viewers in the project area, including residents, were assigned low to moderate sensitivity based on this existing visual context. The overhead catenary system, which is a necessary element for electric rail operations, would be compatible with existing visual conditions, which include existing freight rail infrastructure, overhead utility lines and mixed urban development.

Under CEQA, for projects in urbanized areas, visual impacts are also assessed based on whether the project would conflict with applicable zoning and other regulations governing scenic quality. Section 3.3-4.3 analyzes the project's consistency with local policies identified in Table 3.3-1 through Table 3.3-4, including the Redondo Beach policies cited by the commenter. The analysis concludes that the project, with implementation of Project Feature PF-AES-1 (Local Zoning Compliance) and PF-AES-2 (Metro Design Standards), would be consistent with local policies regarding visual character and scenic quality.

While privacy is not considered an environmental impact analyzed under CEQA, Metro understands that this may be a concern for residents, and is committed to minimizing potential intrusions where feasible. During operation, privacy impacts from the light rail vehicles themselves are expected to be minimal. Trains would be in motion and would not stop or slow near residential properties, greatly limiting opportunities for riders or operators to observe private activities. In addition, light rail vehicles are generally enclosed and, in most areas, would be elevated or grade-separated, further reducing visibility into adjacent properties. Metro would continue to evaluate ways to minimize disruptions in accordance with applicable legal requirements and as part of the project's ongoing project development.

Regarding graffiti and maintenance, Metro has established procedures to maintain the cleanliness and appearance of its transit corridors. This includes a graffiti program that requires the removal of graffiti within 24 hours of when it is reported and the use of anti-graffiti coatings, where possible. All surfaces within the project's station public areas (within the touch zone) would have anti-graffiti coatings. Additionally, Metro's standard operations and maintenance plans address routine landscaping, vegetation management, and litter removal activities. Maintenance agreements with local jurisdictions would also be established as project design progresses.

See MR-10: Changes to Community Character.

- 1992-17 The comment is correct that Figure 3.3-66 (KOP 10 visual simulation) does not depict the soundwall that would be required by Mitigation Measure MM-NOI-2. The visual simulation shows the primary project elements (light-rail vehicles and overhead catenary system) but does not include the soundwall because final soundwall design has not been determined at this stage in the project design. However, the text accompanying KOP 10 on page 3.3-79 of the Draft EIR acknowledges this limitation and discusses the soundwall's visual effects: "Mitigation measure MM-NOI-2, as discussed in Section 3.6, Noise and Vibration, also proposes a soundwall to minimize noise impacts to adjacent sensitive receivers, which would further increase the scale of visual change; however, the soundwall would be designed in consideration of adjacent development." The text also explains that soundwalls would be placed with appropriate setback distance from the tracks, and materials, color,

landscaping, and/or other aesthetic treatments would be integrated into the design of the soundwall to minimize dominance and scale. Figure 3.3-59 provides examples of soundwalls on existing Metro rail lines (both at-grade and elevated), showing representative designs.

1992-18 Figure 3.3-68 in the Draft EIR accurately represents all infrastructure that would be present at the Torrance Transit Center (TC) Station. While some new components are not visible from this angle as the canopy of the existing Torrance TC blocks them, the addition of overhead contact system is visible parallel to and above the railroad tracks.

1992-19 The comment is correct in identifying confusing language in Section 3.3-4.1.1 regarding shadows cast by construction equipment. The term “mass” was used as shorthand for “massing”—the three-dimensional bulk and form of structures or objects. However, the commenter is correct that this language was imprecise and introduced confusion, as shadows are cast based on an object’s height, size, and ability to block light, not its mass (the amount of matter in the object). What the analysis intended to convey is that construction equipment, while varying in size, would be temporary and mobile. Unlike permanent structures that can create persistent new shadow patterns affecting adjacent properties, construction equipment would frequently move and is not anticipated to cast continuous shadows for extended periods of time. Temporary shadows from mobile construction equipment, regardless of size, would not constitute significant shadow impacts because alteration of the shadow patterns at public shadow-sensitive uses would be temporary and intermittent.

1992-20 Regarding the commenter’s observations about life expectancy and air quality, refer to Response to Comment 1992-1. As explained therein, life expectancy reflects many factors beyond air quality, and poor air quality imposes real health burdens even in populations with overall favorable life expectancy statistics.

Regarding the commenter’s questions about Metro’s website versus the EIR analysis, Metro can cite traffic relief and travel time benefits as project objectives even though CEQA no longer requires analysis of traffic delay or level of service (LOS). Senate Bill (SB) 743 changed CEQA’s transportation analysis from LOS to VMT to better align the CEQA process with the state’s climate goals. But this does not mean traffic congestion is ignored. The 2023 Transportation Detail Report, published concurrently with the Draft EIR, provides information on traffic conditions and the project’s anticipated effects on the transportation network. Draft EIR. See MR-11: Traffic Delay and Level-of-Service and MR-19: Project Benefits.

The project objectives extend beyond air quality improvements. As described in Section 2.2, Project Objectives, of the Draft EIR, the project aims to improve mobility and encourage mode shift by introducing high-frequency transit service, creating direct connections to the regional transit network, and providing an alternative to congested arterials and I-405. Additional objectives include reducing air pollution and greenhouse gas emissions, providing equitable access to regional destinations, and providing a cost-effective project. See MR-19: Project Benefits.

1992-21 Project cost-effectiveness is not an environmental impact analyzed under CEQA. The commenter references the South Coast Air Quality Management District’s (SCAQMD’s) responsibility to “minimize fiscal impact that pollution control measures have on local economies.” This refers to SCAQMD’s regulatory activities (such as developing and enforcing

air quality regulations and promoting clean air technologies), not Metro’s project costs. However, Metro takes seriously its responsibility as steward of voter-approved funding and prioritizes cost-effective development and delivery, as reflected in the Project Objectives in Section 2.2 of the Draft EIR.

In 2016, Los Angeles County voters approved Measure M, the primary funding source of this Project, with 71.15% support. The Project was included in the Measure M Ordinance as the Green Line Extension to Crenshaw Blvd in Torrance. Metro prepared cost estimates in 2022 for all rail alignments and shared them with the Metro Board prior to the May 23, 2024, Board meeting at which Metro selected the LPA. Metro has prepared technical studies on cost and project benefits to help inform decision-making on the project and will provide an update to the Metro Board prior to a final determination on the project; see MR-21: Cost Estimates and Schedule. See MR-19: Project Benefits.

- 1992-22 Metro acknowledges that all future projections involve uncertainty and that forecasting may become less precise over longer time horizons. However, the air quality analysis demonstrates operational benefits under multiple scenarios using industry-standard methodologies, including SCAG’s adopted regional growth model and Metro’s travel demand model, which are the same tools used for regional transportation planning throughout the region. The methodology used is consistent with California Air Resources Board standards and has been validated through decades of transportation planning practice. These models have proven reliable for evaluating long-term transportation infrastructure investments, which by their nature require analysis of future operations.

Importantly, as stated on page 3.4-21 of the Draft EIR, “because operations of the Proposed Project and Options would reduce VMT in any year, operational air quality impacts would be less than significant in all years, including under an existing (2021) baseline.” Thus, whether comparing to current or future conditions, the conclusion remains that the project would improve regional air quality.

- 1992-23 The air quality significance thresholds used in the Draft EIR are not arbitrary. CEQA Guidelines section 15064.7 authorizes lead agencies to employ significance thresholds based on substantial evidence. For air quality impacts, agencies typically rely on the adopted thresholds recommended by the air quality management districts since those districts have expertise in air quality science and regulations. The Draft EIR appropriately employed SCAQMD’s guidance. SCAQMD’s mass daily significance thresholds reflect emission levels at which projects could interfere with attainment of state and federal air quality standards or contribute to existing air quality violations. These standards are based on air quality levels needed to protect public welfare and health. SCQMD’s localized significance thresholds are designed to protect nearby residents, particularly vulnerable populations, such as children and the elderly, from harmful effects of localized air pollution caused by construction and operational activities. While the commenter correctly observes that thresholds could theoretically change over time, this does not make them arbitrary.

The commenter is correct that compliance with a significance threshold does not mean zero impact. Any development generates some emissions. However, thresholds represent levels below which emissions are not expected to cause or substantially contribute to an air quality violation, result in a cumulative considerable increase in pollutants, or result in harmful effects to nearby sensitive receptors. They are designed to be protective of public

health and welfare based on scientific evidence regarding pollutant concentrations and health effects.

The comment does not identify substantial evidence of an air quality impact that the Draft EIR failed to analyze, any applicable threshold that was overlooked, or any specific air quality concern that warrants further study. The comment presents a general philosophical objection to the use of thresholds but does not point to deficiencies in the actual air quality analysis.

The Draft EIR thoroughly assessed potential construction-related impacts on sensitive receptors using conservative modeling and SCAQMD's mass daily regional thresholds and localized significance thresholds. Tables 3.4-15 through 3.4-29 of the Draft EIR summarize the regional and localized air quality impacts, demonstrating that, with the exception of the Trench Option, emissions would remain below SCAQMD thresholds. A similar analysis as that performed for the Elevated/At-Grade Alignment applies to the LPA, as discussed in Chapter 4, Evaluation of Alternatives, of the Draft EIR. Metro is not aware of substantial evidence suggesting the project would cause air quality impacts beyond those captured by this threshold-based analysis. Moreover, each alignment studied, including the LPA, would provide long-term air quality benefits by reducing regional vehicle miles travel and associated emissions compared to the 2042 No Project Alternative.

- 1992-24 There is no contradiction between statements in Section 3.4, Air Quality. The distinction is between *inducing* new growth versus *accommodating* planned growth. Section 3.4-4.1 correctly states that the project would not introduce new residential or commercial land uses.

As explained in the analysis of growth-inducing impacts provided in Section 3.16, Other CEQA Considerations, of the Draft EIR, the project is designed to serve the current and planned growth in population, housing, and employment along the corridor, rather than to induce new development. The regional growth projections set forth in the SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which formed the basis of the air quality, greenhouse gas, transportation, and other analyses in the Draft EIR, already assume this project would be built and that transit-oriented development would occur near stations.

Regarding the commenter's skepticism that residents near transit will actually use it, the project's ridership projections (approximately 11,500 daily boardings by 2042) are based on Metro's travel demand model, which explicitly accounts for mode choice behavior and recognizes that not everyone near transit will use it. Mode choice depends on individual trip characteristics and the comparative advantages of driving versus transit for each trip. See Section 4.7 of the 2025 Ridership Summary Report, published concurrently with the Final EIR, for additional information regarding the mode choice assumptions.

- 1992-25 The commenter misunderstands the distinction between the methodology section and the actual impact analysis. The text in the first paragraph on Page 3.4-33, cited by the comment, describes the general analytic framework for assessing whether a project conflicts with or obstructs implementation of an applicable air quality plan. This methodology paragraph is not stating that this project would exceed thresholds. The actual project-specific impact analysis (pages 3.4-33 through 3.4-51) reaches different conclusions for different alternatives. Page 3.4-36 concludes that the Trench Option *would* result in a significant and

unavoidable impact due to construction emissions exceeding SCAQMD thresholds. The Elevated/At-Grade Alignment and the Hawthorne Option were determined to result in less than significant impacts for air quality. The LPA has been determined to result in a less than significant impact.

The Draft EIR does not “ignore” excess emissions. Where emissions would exceed thresholds (Trench Option), the impact is disclosed as significant and unavoidable. Where emissions would remain below thresholds (the remaining alignment options), the impact is appropriately determined to be less than significant based on the quantified analysis in Tables 3.4-15 through 3.4-29.

- 1992-26 The assumption that construction workers could come from the regional labor pool is based on substantial evidence. First, Metro’s Project Labor Agreement and Construction Careers Policy, adopted in 2012, includes specific local hiring requirements. For non-federal projects, it requires a minimum of 40% of all project work hours to be performed by local targeted workers (meaning a local resident, community area resident, or a disadvantaged worker whose primary place of residence is within Los Angeles County). Please find more information at <https://www.metro.net/about/placcp/#pla-hiring-goals>.

Second, the Los Angeles region has a large, established construction workforce capable of supporting major infrastructure projects. The construction industry in Southern California employs hundreds of thousands of workers involving multiple trades. Metro’s past transit projects, including the Crenshaw/LAX Line and Regional Connector, were successfully constructed using the regional workforce without substantial worker in-migration.

Third, construction jobs are by nature temporary. Even if some specialized workers were to temporarily relocate to the area during construction, they would not necessarily relocate permanently with their families, establish new households, or constitute population growth in the region. Construction workers typically maintain their primary residences and commute to project sites or stay in temporary accommodations. See Section 3.16, Other CEQA Considerations, for additional information regarding growth inducement during project construction.

- 1992-27 See Response to Comment 1992-11 regarding enforcement of the MMRP. The air quality control measures referenced in Section 3.4-4.1.1 are Project Features (PF-AQ-1: Metro Green Construction Policy Compliance, PF-AQ-2: SCAQMD Rule 403 Compliance, and PF-AQ-3: Metro Moving Beyond Sustainability Compliance) that are incorporated into the project design and construction specifications. These would be binding contractual requirements that contractors must implement. Metro staff conduct regular onsite inspections to verify contractor compliance. Metro has the authority to issue stop-work orders and/or impose contract penalties for non-compliance. Additionally, many of these measures implement existing regulatory requirements (e.g., SCAQMD Rule 403), which are independently enforceable by the regulatory agencies. Violations could result in regulatory fines and penalties separate from contractual enforcement. Thus, contractors have strong incentives to comply, and Metro’s oversight would ensure that the assumed control measures would be implemented.

- 1992-28 The commenter correctly identifies a typographical error on page 3.4-36. The sentence is clarified as follows with strikeout, “Regulatory policies and control measures ~~that would~~ regarding emissions during construction are summarized in Table 3.4-14.” The extraneous

words in the Draft EIR do not affect the meaning of the sentence or the contents of the impact analysis within the Draft EIR.

As stated in CEQA Guidelines section 15151, the “courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.” Minor typographical errors do not render an EIR inadequate under CEQA where, as here, they do not “affect the environmental analysis, its conclusions, or the ability of the decision-makers and the public to understand the project’s environmental consequences.”

- 1992-29 Construction noise is analyzed in Section 3.6, Noise and Vibration, not Section 3.4, Air Quality. The Draft EIR acknowledges that construction would result in significant and unavoidable noise impacts even with mitigation. Mitigation Measure MM-NOI-1: Noise Control Plan, requires preparation of a site-specific plan demonstrating how FTA construction noise standards would be achieved. The plan must include predictions of noise levels at sensitive receivers and noise mitigation measures to achieve compliance with applicable thresholds. MM-NOI-1 requires the contractor to respond and provide corrective actions for complaints filed within a time period of 24 hours. Methods of reducing noise could include, among other things, rerouting construction-related truck traffic away from local residential streets and/or sensitive receivers as well as installing white-noise back-up alarms, which are lower volume and set to a less high-pitched frequency to reduce annoyance.

As noted in Response to Comment 1992-12, the estimate of 200 trucks per day represents peak project-wide construction activity, not the volume at any single location. However, Metro acknowledges that even with implementation of MM-NOI-1 and the temporary nature of construction, some noise impacts would remain significant and unavoidable during active construction periods near residential areas.

- 1992-30 Section 3.4, Air Quality, analyzes local and regional air pollutant emissions. The operational air quality analysis focused on emissions from vehicle travel. Because the project would reduce regional VMT, it would reduce emissions from automobiles. As noted by the comment, the light rail vehicles would be powered by electricity. Therefore, they would not produce direct emissions at the point of operation.

The broader energy and emissions picture, including electricity generation, is addressed in Section 3.5, Greenhouse Gas Emissions and Section 3.12, Energy Resources. As shown in Table 3.12-12 in Chapter 4, Corrections and Additions, of the Final EIR, when accounting for both direct energy consumption (electricity to power the project: 28,182,841 megajoules (MJ) annually) and indirect energy savings (reduced petroleum consumption from fewer VMT), the project would result in a net reduction of approximately 36.44 million MJ in annual regional energy consumption by 2042. The gasoline and diesel fuel saved from reduced driving exceeds the electricity needed to power the project, resulting in net energy savings.

- 1992-31 Page 3.4-53 of Draft EIR states that operation would not introduce “a new substantial permanent direct source of emissions.” This is because electrical propulsion does not generate combustion emissions. To further clarify, Section 4.8, Corrections and Additions, of the Final EIR, revises the Draft EIR to acknowledge that both light rail and freight trains would use friction brakes and resuspend particles from trains passing over unpaved areas. However, these emissions would not substantially increase localized particulate matter

concentrations along the alignment near residential receptors. The revisions in Section 4.8 of the Final EIR do not change the Draft EIR's conclusion that the impact related to criteria pollutant concentrations, toxic air contaminants, and CO hot-spot would result in a less than significant impact. The Metro ROW already experiences freight train operations, and light rail vehicles are lighter than freight, generating less brake wear. The project would also reduce VMT, thereby reducing brake dust emissions from automobiles throughout the region, a benefit that would outweigh localized light rail brake emissions. See MR-20: Proximity Impacts of Relocated Freight Tracks.

1992-32 To clarify, the Draft EIR's statement that LED lighting would reduce electricity consumption refers to reducing electricity compared to less efficient lighting technologies that could be used for the same safety and security purposes. The relevant question under CEQA is whether the project's lighting design would be energy efficient, which it would be through the required use of LED technology. Section 3.12, Energy Resources, analyzes the project's total energy consumption. While the project would consume electricity from train operations and station lighting, it would result in net regional energy savings of approximately 36.44 million MJ annually due to reduced fuel consumption from fewer VMT. Accordingly, the project would have a less than significant impact on energy resources.

1992-33 See response to Comment 1992-7. The comment's comparison of disease transmission risk to air quality-related health impacts conflates two distinct issues. Section 3.4, Air Quality, subsection 3.4-4.3, analyzes whether the project would expose people to harmful pollutant concentrations, and concludes it would not. Public health benefits from improved regional air quality (through reduced vehicle emissions) and disease transmission risks in transit vehicles are separate considerations. Metro's policies regarding public health measures are updated in response to evolving health conditions and guidance from agencies such as the Center for Disease Control and local health departments. Metro continues to prioritize passenger health and safety through its ongoing operations and maintenance programs, which are independent of the CEQA environmental review process.

1992-34 The commenter appears to misunderstand the relationship between regional air quality and project-specific impacts. The analysis in Section 3.4-7, Cumulative Impacts, correctly states that, "Despite substantial growth in population, air quality within the SCAB has been gradually improving over the past several decades as a result of robust regulatory control measures administered at the federal, state, and regional levels." This improvement demonstrates that air quality management strategies work. It does not, however, mean that air quality is no longer a concern or that projects should not be evaluated for their contributions to emissions.

SCAQMD's cumulative impact methodology recognizes that projects remaining below SCAQMD's established significance thresholds would not be cumulatively considerable. Where a project would exceed threshold, it must implement all feasible mitigation. The Draft EIR appropriately applies this framework. The Trench Option would result in a significant and unavoidable impact related to cumulative air quality emissions while the Elevated/At-Grade Alignment, the Hawthorne Option, and the LPA would not have cumulatively considerable air quality impacts.

The project's benefits would extend beyond direct riders. The project would improve regional mobility, reduce congestion along the I-405 corridor, improve air quality from

reduced vehicle emissions, and enhance connections to jobs and services that benefit the broader community, including those who continue to drive. Ridership projections estimate approximately 11,500 daily boardings by 2042, representing thousands of Los Angeles County residents who would benefit from the improved transit access. In 2016, Los Angeles County voters approved Measure M, which included the Green Line to Torrance Extension, by 71.15 percent. See MR-19: Project Benefits and see MR-10: Changes to Community Character. See also response to Comment 1992-1 regarding life expectancy.

1992-35 The address was incorrectly presented in Table 3.6-11 Noise Monitoring Locations and Measured Ambient Noise Levels. The correct address for Noise Site 17 should be 1921 Condon Avenue. Figure 3.6-5 Noise Monitoring Locations and Sensitive Uses (1 of 4) through Figure 3.6-8 Noise Monitoring Locations and Sensitive Uses (4 of 4) correctly depict the locations of the noise sites. The correct location was used in the analysis, and this does not change the finding of the Draft EIR. Minor shifts of the noise monitoring location points may have occurred in the figures for graphical depiction purposes, but all points are representative of where measurements were taken. All noise measurements were taken within the project vicinity to establish existing conditions.

1992-36 The comment challenges the vibration analysis based on discrepancies between measured and predicted freight train vibration levels at El Nido Park shown in Table 3.6-12. The Draft EIR explicitly acknowledges and addresses this issue. Vibration measurements showed good agreement between measured and predicted levels at the Condon Avenue location (less than 1 VdB difference). At El Nido Park, however, measures were 12-14 VdB higher than initially predicted. The EIR does not ignore this discrepancy. Page 3.6-31 explains that the embankment at El Nido Park, which is constructed of fill material, likely creates a more efficient propagation path than flat terrain. This is a recognized phenomenon in vibration analysis where soil composition and compaction affect vibration transmission.

Importantly, the analysis conservatively adjusted for this finding. As stated on page 3.6-31: “Therefore, for the area near El Nido Park, where freight tracks are located on the embankment, an additional 10 VdB was included within the project’s predicted vibration levels. This adjustment was made to account for the difference between measured and predicted levels.” By adding this adjustment, the vibration analysis accounts for site-specific geotechnical conditions that increase vibration propagation in embankment areas.

The assertion that the vibration analysis is “invalidated” is incorrect. The analysis follows FTA methodology; it identified where standard predictions underestimated vibration, determined the likely cause, conservatively adjusted predictions for similar conditions, and identified specific mitigation measures to achieve less than significant operational vibration impacts.

1992-37 The comment questions the use of the Day-Night Average Sound Level (Ldn) metric and suggests that Day-Evening-Night Average Sound Level (Lden) would be more appropriate. The Draft EIR’s use of Ldn follows the Federal Transit Administration (FTA) Transit Noise and Vibration Assessment Manual (2018) which is the applicable and industry-accepted standard for evaluating transit noise impacts. The FTA manual recommends the use of Ldn, which is also the standard noise descriptor for transportation analysis throughout the United States.

The use of Ldn does not underestimate noise impacts. The 10 dBA nighttime penalty already provides substantial weight to nighttime noise sensitivity, and FTA's impact criteria are calibrated specifically to the Ldn metric based on extensive research into community response to transportation. Using a different metric would require different impact thresholds, and simply applying Lden with Ldn-based thresholds would not result in a more accurate or protective analysis. Metro appropriately followed well-established FTA guidance and used the standard U.S. methodology for transit noise assessment. See MR-2: Operational Noise Analysis Methodology and Impact Thresholds.

- 1992-38 In accordance with CEQA, the Draft EIR's analysis evaluates whether the project would cause a substantial increase in noise, not whether it would cause *any* noise increase. The Draft EIR evaluates operational noise impacts in accordance with the FTA Transit Noise and Vibration Impact Assessment Manual (2018), which establishes impact criteria based on existing ambient noise levels. FTA's tiered impact thresholds are specifically designed to be more protective in quieter areas—the lower the existing noise level, the smaller the allowable increase. This is illustrated in Figure 3.6-2, Noise Impact Criteria for Transit Project, in the Draft EIR.

The local noise policies cited in Tables 3.6-7 through 3.6-9 guide local land use decisions and encourage noise-compatible development. Metro would comply with applicable noise ordinances (such as construction hour restrictions), but the CEQA significance analysis properly relies on FTA transit-specific criteria.

The Draft EIR and Final EIR conclude that with implementation of mitigation measures, including MM-NOI-2: Soundwalls, MM-NOI-3: Low Impact Frogs, and MM-NOI-4: Quiet Zone Establishment (for the ROW alignments), operational impacts of the LPA, the Trench Option, and the Hawthorne Option would not exceed the FTA operational noise thresholds. Only the Elevated/At-Grade Alignment would have a significant and unavoidable impact, caused by the necessary gap in the soundwall for vehicle access and the need for warning devices at the at-grade crossing near 170th Street.

See MR-2: Operational Noise Analysis Methodology and Impact Thresholds.

- 1992-39 It is important to understand the existing noise environment. As shown in Table 3.6-11 of the Draft EIR, measured ambient noise levels along the alignment currently range from approximately 59 to 71 dBA Ldn, depending on location. This level reflects existing traffic noise, as well as current freight train operations (including horns). This is already a moderately noisy urban environment, comparable to typical city residential areas with traffic.

The FTA noise criteria use the Ldn metric, which was adopted specifically for residential land uses in response to concerns about community annoyance from transit noise and vibration, including sleep disruptions. The FTA's Ldn metric includes a 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m. to account for increased sensitivity to noise at night when most people are asleep. The FTA manual notes that residents become highly annoyed when noise interferes considerably with activities such as sleeping, talking, and other noise-sensitive activities. The Draft EIR addresses relevant noise levels in Section 3.6, Noise and Vibration, noting that – without mitigation – light rail pass-bys would generate approximately 78 dBA (Lmax) at a speed of 50 mph, decreasing by approximately 20 dB indoors with windows closed. This means that interior noise during a train pass-by would be

approximately 48-58 dBA, which is comparable to the hum of a quiet refrigerator or moderate rainfall. Sounds in this range are generally considered soft and moderate and are not usually loud enough to cause sleep disruptions. Additionally, train pass-bys are brief (less than one minute), not continuous noise. The intermittent nature of the noise is factored into the FTA impact assessment methodology.

Operational noise levels vary by alignment option. The Elevated/At-Grade Alignment would result in significant and unavoidable operational noise impacts at two locations near 170th Street due to at-grade crossing warning devices (bells), which would be particularly disruptive at night. The LPA, Trench Option, and Hawthorne Option would have less than significant operational noise impacts with implementation of MM-NOI-2 (Soundwalls), MM-NOI-3 (Low Impact Frogs), and MM-NOI-4 (Quiet Zone Establishment).

Notably, with the establishment of a quiet zone along the project corridor (made possible through the grade-separated alignments), routine freight train horn noise, which is the loudest existing noise source at over 100 dBA, would be eliminated.

With respect to balancing impacts and benefits, the air quality and greenhouse gas benefits are quantified based on project VMT reductions from approximately 11,500 daily transit boardings, representing measurable emissions reductions that benefit the regional population. If the Metro Board selects an alignment option with significant and unavoidable impacts, it must adopt a Statement of Overriding Considerations explicitly finding that project benefits outweigh those impacts. Although sleep disturbances cannot entirely be ruled out, the potential for stress-increasing disturbances is anticipated to occur primarily during daytime hours, given the expected hours of construction which would typically occur between the hours of 7:00 a.m. and 6:00 p.m.

See MR-2: Operational Noise Analysis Methodology and Thresholds and MR-4: Potential Negative Health Effects Related to Noise, Vibration, and Air Quality.

1992-40 The Draft EIR conservatively identifies construction noise as a significant and unavoidable impact for all alignment options, including the LPA. This finding reflects the reality that even with implementation of all feasible mitigation measures, construction of a major infrastructure project may temporarily generate noise levels exceeding FTA impact criteria. However, MM-NOI-1 is not optional. It must be implemented and would be enforced via the MMRP.

The comment characterizes the mitigation measure as having “no commitment to accomplish anything.” But this misreads the mitigation measure. MM-NOI-1: Noise Control Plan establishes mandatory, enforceable requirements:

- Preparation of a site-specific Noise Control Plan by a board-certified acoustical engineer;
- Demonstration of compliance with FTA- 1-hour Leq construction noise criteria (90 dBA daytime/80 dBA nighttime for residential areas);
- Continuous noise monitoring throughout construction;
- Implementation of corrective actions within 24 hours if criteria is exceeded; and
- Public information and complain response system.

The Noise Control Plan must be approved by Metro before noise-generating construction begins.

The qualifying phrases cited by the comment reflect construction logistics, not a lack of commitment:

- “Comply with local ordinances where possible.” Metro must comply with local construction hour restrictions but may need variances when work outside those hours is necessary for safety, traffic management, or technical reasons.
- “Typically occur between the hours of....” Standard construction hours are the norm, with the exception of specific activities required for off-peak work.
- “Nighttime or weekend construction may be required.” Some work must occur during low-traffic periods. When this occurs, the project must obtain variances and implement additional noise controls.
- “In some instances the FTA construction impact may still be exceeded.” This is honest disclosure that even with best available control measures, some construction activities may temporarily exceed thresholds. It is for this reason that the impact is disclosed as significant and unavoidable.

If the Metro Board approves the project, it must adopt a Statement of Overriding Considerations finding that the project’s benefits outweigh this significant and unavoidable construction noise impact.

1992-41 The commenter’s characterization that Metro is “unconcerned about noise” and has “brushed off” construction noise health effects does not accurately reflect the extensive analysis and mitigation in the Draft EIR. The Draft EIR dedicates substantial analysis to construction noise impacts and explicitly acknowledges that construction noise could cause stress and sleep disruption. As explained in MR-4: Potential Negative Health Effects Related to Noise, Vibration, and Air Quality, however, predicting specific health outcomes from noise is not scientifically feasible given how differently individuals respond to noise based on age, health conditions, and personal sensitivity. Research on noise and health identifies broad patterns, such as increased stress or cardiovascular risks from chronic high noise exposure, but cannot provide formulaic predictions linking particular decibel levels to individual health effects. Accordingly, it would be speculative to attempt to provide quantitative predictions of specific health outcomes from individual residents exposed to construction noise. Instead, the Draft EIR appropriately uses FTA construction noise criteria, which are designed to prevent harmful community effects including stress and sleep disruption.

Metro has imposed extensive, mandatory requirements to address construction noise, as detailed in response to Comment 1992-40. As shown therein, Metro has committed to enforceable performance standards, real-time monitoring, and responsive corrective action. Metro has done so because it takes impacts on nearby residences very seriously. One reason the Metro Board selected the 170th/182nd Grade-Separated Light Rail Transit Alternative as the LPA is that it eliminates the significant and unavoidable noise impact associated with the Elevated/At-Grade Alignment. See MR-4: Potential Negative Health Effects Related to Noise, Vibration, and Air Quality.

1992-42 The commenter quotes Section 3.6-4.1.2 regarding operational noise impacts. However, the conclusion that operational noise would be significant and unavoidable applies only to the Elevated/At-Grade Alignment, not to all alignments under consideration. With implementation of mitigation, the Trench Option, Hawthorne Option, and LPA would result in less than significant operational noise impacts. The characterization that Metro is “shoving this in the community” does not reflect the project development process. All comments have been shared with the Metro Board for their consideration. All alignment options and alternatives studied in the Draft EIR, including the No Project Alternative, remain under consideration until the Final EIR is certified and the Board takes final action. See MR-2: Operational Noise Analysis Methodology and Impact Thresholds.

1992-43 See Response to Comment 1992-8.

1992-44 The commenter is correct that 70 dBA represents substantially more acoustic energy than 50 dB (the “Quiet urban daytime” reference in Figure 3.6-1.). However, the relevant CEQA analysis is not whether the project achieves a “quiet urban” environment, but whether it would cause a substantial increase in noise over existing conditions. The project area is not currently a quiet urban environment. Existing ambient noise levels along the Metro ROW alignment range from approximately 59-71 dBA Ldn due to traffic on arterial streets, existing freight operations, and other urban noise sources.

The Draft EIR’s discussion of indoor noise reduction (10 dB with windows open, 20 dB with windows closed) provides context about actual noise exposure, not a directive for residents to stay indoors. This information is standard in noise analyses and helps decision-makers and the public understand real-world conditions. Metro is not suggesting residents must remain inside to avoid noise impacts.

All comments have been shared with the Metro Board for their consideration. See MR-4: Potential Negative Health Effects Related to Noise, Vibration, and Air Quality and MR-10: Changes to Community Character.

1992-45 See Response to Comment 1992-8. Please note that Section 4.10 of the Final EIR includes revisions to Table 3.6-17. These revisions do not alter the significance conclusions of the Draft EIR.

1992-46 The FTA Noise and Vibration Impact Assessment Manual identifies the potential for wheel squeal on curves with a radius of less than 1,000 feet. Of the alignments analyzed, the LPA, Trench Option, and Elevated/At-Grade Alignment do not include curves with a radius of less than 1,000 feet. Wheel squeal is not anticipated for those alignments. The Hawthorne Option includes curves with a radius of less than 1,000 feet, where wheel squeal could occur. For the Hawthorne Option, Mitigation Measure MM-NOI-5: Wheel Squeal Monitoring would be implemented to reduce the potential impact of wheel squeal for that option to a less than significant level. Rail lubrication is a proven, industry-standard method for reducing wheel squeal on tight-radius curves. As final engineering progresses, Metro would continue to evaluate track conditions and noise mitigation needs, consistent with Section 4.2.12.3 of the Metro Rail Design Criteria, which requires lubricators in locations where wheel squeal or excessive wheel wear is anticipated.

See MR-3: Operational Noise Project Features and Mitigation Measures.

1992-47 As described in Section 3.6, Noise and Vibration, of the Draft EIR, the only location where a potential significant and unavoidable vibration impact related to structural damage would occur is at Grant Avenue, where the Elevated/At-Grade Alignment would relocate the existing freight bridge, and could require the use of high-vibration equipment such as an impact pile driver.

Mitigation Measure MM-VIB-3: Pre- and Post-Construction Surveys would require contractors to document any damage resulting from construction vibration and repair it. For the rest of the corridor, the potential for building damage under the Elevated/At-Grade Alignment would be significantly reduced because the types of construction equipment would generate lower vibration levels.

Unlike the Elevated/At-Grade Alignment, the LPA, Trench Option, and Hawthorne Option, would not require reconstruction of the Grant Avenue bridge and their vibration-related damage impacts would be less than significant with mitigation. Vibration annoyance during construction would remain significant and unavoidable for all options.

In addition, as discussed in Section 3.8, Geology and Soils, of the Draft EIR, the project design process would include thorough site geotechnical investigations to ensure the stability of nearby structures. Per Project Feature PF-GEO-1: Metro Geotechnical Design Standards, site-specific geotechnical investigations would be conducted to address foundation and structural safety. The investigation would include engineering and construction recommendations to ensure surrounding structures are not damaged.

1992-48 The commenter suggests vibration data should be viewed skeptically. To the contrary, as explained in Response to Comment 1992-36, when field measurements exceeded predictions at El Nido Park, the analysis incorporated a conservative 10 VdB adjustment to ensure impacts were not underestimated. This methodology appropriately accounted for uncertainties. See Response to Comments 1992-36 and 1992-47. See MR-6: Vibration Analysis During Final Design.

1992-49 See Response to Comment 1992-47. See MR-6: Vibration Analysis During Final Design.

1992-50 The FTA Transit Noise and Vibration Assessment Manual provides the appropriate methodology and significance thresholds for evaluating transit impacts. These criteria were developed specifically for transit operations and are based on extensive research into human response to ground-borne vibration from rail standards. FTA criteria are the industry standard for transit environmental review nationwide and are appropriate for regional transit projects like this one. The FTA criteria recognizes that vibration may be perceptible without necessarily causing significant annoyance. The 72 VdB threshold represents the level at which vibration begins to cause significant community annoyance based on research into human response, not the level at which vibration first becomes detectable. With implementation of Mitigation Measures MM-VIB-4 through MM-VIB-6, operational vibration impacts would be reduced to less than significant.

State law preempts the application of local land use regulations to Metro on property it owns or operates. (*Rapid Transit Advocates, Inc. v. Southern California Rapid Transit District* (1986) 185 Cal.App.3d 996.) The Torrance ordinance cited by the commenter (Section 91.32.4) is a performance standard within the City's land use regulations, as indicated by its context alongside requirements for fire ratings, hours of operation, illumination controls,

and dust/smoke limits. This ordinance does not apply to Metro's operations on the Metro ROW. Similarly, the Redondo Beach ordinance (Section 4-24-504), a general nuisance standard adopted in 1976, does not govern regional transit operations on Metro-owned property. Notably, existing freight rail operations along the corridor generate perceptible vibration, yet the Redondo Beach ordinance does not prevent the freight operation.

Section 3.6 of the Draft EIR is intended to specifically cover mitigation. The situation without mitigation is described in previous sections.

See Response to Comment 1992-36 regarding the vibration measurement discrepancy. See also MR-6: Vibration Analysis During Final Design.

- 1992-51 Mitigation Measure MM-VIB-6 requires resilient fasteners to achieve a minimum 5 VdB reduction. Mitigation Measure VIB-6 requires ballast mats to achieve a minimum 10 VdB reduction. Metro does not use "off-the-shelf" components, but rather would specifically design these special trackwork elements to achieve the minimum performance standards in areas that require mitigation.

Pages 3.6-94 and 3.6-96 of the Draft EIR incorrectly stated that the combined use of fasteners and ballast mats at a location would have a VdB reduction of "up to 15VdB." When used together, they would provide a minimum reduction of 15Vdb. This revision does not change the analyses or conclusions of the Draft EIR.

As discussed in Section 3.6-6.2.2, these measures would reduce vibration impacts on nearby sensitive receptors to less than significant with mitigation, including in high-density residential areas.

- 1992-52 The contractors would not "police themselves." Metro, as lead agency, is legally required to monitor and enforce the mitigation measures as detailed in the MMRP. Mitigation Measure NOI-1 includes multiple layers of accountability:

- The Noise Control Plan must be prepared by a board-certified acoustical engineer and approved by Metro before noise-generating construction begins;
- The contractor must demonstrate compliance with FTA 1-hour Leq construction noise criteria (90 dBA daytime/80 dBA nighttime for residential areas);
- Continuous noise monitoring is required, with the results available to Metro;
- If FTA criteria are exceeded, the contractor *must* implement alternative construction measures;
- The contractor must establish a public complaint system and respond to complaints within 24 hours.

Metro staff conduct regular on-site inspections to verify contractor compliance with environmental commitments, which are also included as terms of the contract. The MMRP includes specific verification procedures, reporting requirements, and Metro responsibilities for enforcement. Contractors who fail to comply would face stop-work orders, withheld payments, or other potential contract penalties. Additionally, Metro's compliance with and enforcement of the MMRP would be enforceable in civil court via a writ petition.

- 1992-53 The soundwalls are a committed mitigation measure, not optional. The locations of the proposed soundwalls are shown in the Draft EIR, which include pages 3.6-51 to 3.6-53 for

the Elevated/At-Grade Alignment, pages 3.6-55 to 3.6-57 for the Trench Option, and pages 3.6-78 to 3.6-80 for the Hawthorne Option. The locations of the LPA soundwalls are shown in pages 4-115 to 4-119 of the Final EIR and are consistent with either the Elevated/At-Grade Alignment or Trench Option, depending on the alignment configuration at the given location. The term feasible under CEQA means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” (CEQA Guidelines, § 15364.) It does not mean optional or discretionary. Metro is required to implement all feasible mitigation.

Importantly, the significance of the “as feasible” language in MM-NOI-2 varies depending on which alignment or alternative is selected. As explained on page 3.6-100 with respect to the Elevated/At-Grade Alignment, soundwalls would not be feasible at the 170th Street and 182nd Street at-grade crossings because vehicle travel must be maintained. The “as feasible” language in MM-NOI-2 is intended to address this specific physical constraint for the Elevated/At-Grade Alignment. This qualifying language does not apply to the LPA, the Trench Option, or the Hawthorne Option, which do not have at-grade crossings or other physical constraints that would prevent construction of the soundwalls identified in the mitigation tables in the Draft and Final EIR.

- 1992-54 See Response to Comment 1992-46. Section 3.6, Noise and Vibration, of the Draft EIR, evaluates potential noise impacts, including those from wheel squeal. According to the FTA’s Transit Noise and Vibration Impact Assessment Manual (2018), wheel squeal occurs on curves with a radius less than 1,000 feet. Curves with a radius greater than 1,000 feet do not generate wheel squeal.

The commenter expresses concern that Mitigation Measure MM-NOI-5: Wheel Squeal Noise Monitoring only addresses two locations. This is because the only two curves along any of the alignments would have a radius of less than 1,000 feet (both are on the Hawthorne Option):

- Curve between Santa Fe Avenue and Inglewood Avenue
- Curve between 161st Street and 163rd Street

If wheel squeal is identified, Metro shall install wayside rail lubrication to ensure wheel squeal does not occur.

See MR-3: Operational Noise Project Features and Mitigation Measures.

- 1992-55 Establishing a Federal Railroad Administration (FRA)-designated quiet zone is not simply a policy decision. It requires physical safety improvements at each grade crossing. Under federal regulations (49 CFR Part 222), a quiet zone can only be established after crossing safety is enhanced through measures such as upgraded warning devices, medians or channelization to prevent vehicles from driving around lowered gates, four-quadrant gates, or other Supplemental Safety Measures approved by FRA. These improvements require substantial capital investment.

As part of the project, Metro would design and construct the freight crossing infrastructure upgrades necessary to enable quiet zone establishment along the Metro ROW. Without the project, local jurisdictions seeking to establish quiet zones would need to independently fund these crossing improvements—costs that are currently not budgeted. Should a local

jurisdiction choose to establish a quiet zone in advance of the project, it would require the jurisdiction to bear significant costs that the project would otherwise fund.

Regarding the suggestion that quiet zones be established before baseline noise measurements are taken, as required by CEQA, the baseline noise measurements in the Draft EIR reflect actual existing conditions, which include freight horn noise. This provides an accurate basis for comparing project impacts.

1992-56 See Comment 1992-52. As explained there, contractors do not “police themselves.” Metro, as lead agency, is legally required to monitor and enforce mitigation measure compliance. Mitigation Measure MM-VIB-1: Vibration Control Plan, includes enforceable requirements. The requirement for Metro approval of the Vibration Control Plan before vibration-generating activities begin would ensure that the plan demonstrates how the FTA vibration criteria would be achieved. Further, MM-VIB-1 would work in conjunction with other mitigation measures. MM-VIB-2: Vibration Limits for Equipment establishes specific restrictions on high-vibration equipment near sensitive structures. MM-VIB-3: Pre- and Post-Construction Surveys requires documentation of existing conditions and repair of any construction-related damage. Together, these measures would ensure that construction vibration is minimized, and any resulting damage is repaired. See MR-6: Vibration Analysis During Final Design.

1992-57 Mitigation Measure MM-VIB-6 Ballast Mats includes the enforceable performance standard that ballast mats must achieve a minimum 10 VdB vibration reduction and reduce impacts to below FTA criteria. The measure also requires that the locations be verified during final design using a site-specific Detailed Vibration Assessment, including transfer mobility measurements, for the preferred alignment option (as per FTA guidance, Section 6.5). This site-specific testing during final design would inform selection of the appropriate ballast mat products for site conditions.

Metro operates and maintains its rail system on an ongoing basis, including track infrastructure. Routine inspection and maintenance of track components, including ballast mats, would be part of Metro’s standard operations and maintenance program. If vibration levels increase over time due to degradation of track components, Metro would address this through its regular maintenance activities. The 2042 horizon year referenced in the Draft EIR is used for ridership projections and environmental analysis—it does not represent the end of Metro’s maintenance obligations. Metro would continue to maintain the rail line and its vibration mitigation features for the operational life of the system.

See Response to Comment 1992-52. See MR-6: Vibration Analysis During Final Design.

1992-58 Under CEQA, mitigation measures are required where a project would cause significant environmental impacts. The Draft EIR identifies specific locations where operational vibration would exceed FTA significance thresholds and requires mitigation at those locations to reduce impacts to less than significant. Where vibration levels would already be below the FTA thresholds without mitigation, such as at locations farther from the tracks or with favorable soil conditions, additional mitigation measures are not required under CEQA. Although project cost is not an environmental impact under CEQA, Metro is responsible for prudent use of public funds. Installing unnecessary mitigation measures throughout the alignment would increase project costs without corresponding environmental benefit.

As explained in Response to Comment 1992-38, the FTA vibration criteria are based on extensive research into human response to ground-borne vibration and represent levels protective of both building damage and human annoyance. As explained in Response to Comment 1992-50, Metro is preempted from local regulations on Metro-owned property, and FTA criteria are the appropriate CEQA significance criteria for regional transit projects.

See also Response to Comment 1992-38 and Response to Comment 1992-52.

- 1992-59 See Response to Comment 1992-55. As explained therein, establishing an FRA-designated quiet zone along the corridor requires physical safety improvements at each grade crossing, including upgraded vehicle and pedestrian gates, warning devices, and other Supplemental Safety Features. The project would fund and construct these crossing upgrades, enabling the local jurisdictions to apply for and establish the quiet zone designation. Without the project, the local jurisdictions would need to independently fund these improvements. The quiet zone benefit is therefore directly linked to project implementation.

The noise analysis evaluates impacts at all sensitive receptor clusters throughout the alignment, including the locations where the trench alignment transitions from below-grade to at-grade, with mitigation, including MM-NOI-2: Soundwalls, which would introduce soundwalls into areas where significant noise impacts were identified.

The comment states that impacts are “significant and unavoidable, even without mitigation – except for maybe the Hawthorne Option.” This is not accurate. With mitigation measures in place, operational noise and vibration impacts would be reduced to less than significant for the LPA, Trench Option, and Hawthorne Option. Construction noise would remain significant and unavoidable for all alignments. See MR-2: Operational Noise Project Features and Mitigation Measures.

Refer to Response to Comment 1992-8 regarding combined freight and light rail noise.

- 1992-60 As discussed in Section 3.7-3.4 of the Draft EIR, due to its urbanized nature and fragmentation of any remaining open space, no wildlife movement corridors are present within the resource study area (RSA). While coyotes and other urban-adopted wildlife may opportunistically use the ROW, this does not constitute a wildlife movement corridor. Wildlife corridors are typically continuous habitat linkages that connect larger habitat areas and are essential for species movement, genetic exchange, and population viability. The Metro ROW is situated within a developed urban environment and does not serve this function.

The analysis of special-status species includes those listed as threatened, endangered, or otherwise protected under federal or state law. Coyotes are common, urban-adapted animals that are not special-status species. Table 3.7-4 of the Draft EIR describes the potential for special-status species to occur, categorized as having high, moderate, or low potential.

The project would include physical barriers along the entire light rail guideway, restricting access into the light rail guideway. While these safety barriers are primarily designed for human safety, they would also provide a level of protection for terrestrial pets and wildlife by preventing access to the operational rail tracks. See MR-8: Light Rail and Freight Train Safety.

1992-61 In Section 4.21, Corrections and Additions, of the Final EIR, Table 4.5-1: Comparison of Alternatives' Environmental Impacts to the Elevated/At-Grade Alignment has been updated in the Final EIR to include a note defining the acronyms used in the table. As shown therein, "LTS" means "Less than Significant"; "LTSM" means "Less Than Significant with Mitigation," and "SUI" means "Significant and Unavoidable." The revision does not change the analyses or conclusions of the Draft EIR.

The shading in the tables is used to highlight where impacts differ among the alternatives, allowing for easier comparison.

1992-62 CEQA requires lead agencies to determine the significance of environmental impacts. (Pub. Resources Code, § 21002, 21002.1.) The determination of significance drives the entire CEQA review process, including what type of environmental document is prepared, whether mitigation is required, which alternatives to the project are analyzed, and the CEQA Findings that the lead agency must make. (Pub. Resources Code, §§ 21002, 21002.1, 23003.1, 21004, 21061, 21068, 21080.) Here, because there is a fair argument that the project may have significant impacts, Metro prepared a Draft EIR. The purpose of an EIR "is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoidable." (Pub. Resources Code, § 21002.1(a).)

Based on the terminology used in Appendix G of the CEQA Guidelines, and elsewhere in the Guidelines, agencies commonly categorize impacts as either "No Impact", "Less than Significant", "Less than Significant with Mitigation", or "Significant and Unavoidable." This approach allows agencies to communicate environmental findings clearly and consistently.

As discussed in Response to Comment 1992-9, CEQA Guidelines section 15064.7 authorizes lead agencies to use qualitative or quantitative standards for determining whether an impact is significant. Such significance thresholds provide objectivity, consistency, and scientific backing. For instance, the threshold adopted by SCAQMD for air quality, or FTA for noise and vibration, are developed through scientific research, peer review, and expert judgment regarding the levels at which impacts affect human health or the environment.

CEQA is a disclosure statute. It provides informed decision-making and public participation. When a project would result in significant and unavoidable impacts, CEQA does not mandate project "cancellation." Instead, the decision-making body (here, the Metro Board of Directors) must adopt a Statement of Overriding Considerations explicitly finding that the specific project benefits outweigh the significant and unavoidable impacts. This ensures the public understands the decision-makers' balancing of the tradeoffs.

1992-63 See Response to Comment 1992-16. Metro has established procedures to maintain the cleanliness and appearance of its transit corridors. This includes a graffiti program that requires the removal of graffiti within 24 hours of when it is reported and the use of anti-graffiti coatings, where possible. All surfaces within the project's station public areas (within the touch zone) would have anti-graffiti coatings. Soundwalls would also be designed with anti-graffiti coatings where feasible.

Metro maintains and operates its rail system on an ongoing basis. Maintenance agreements with local jurisdictions would be established as project design progresses to ensure continued upkeep of project facilities, among other things.

With respect to visual compatibility, as discussed in Section 3.3, Aesthetics, of the Draft EIR, the project design would integrate landscaping and other features to maintain compatibility with the community's urban and residential environment. Metro's design standards (PF-AES-2) ensure a high level of quality in project design and visual integration with surrounding communities.

It should also be noted that Metro's Art Program Policy will integrate art into the project by allocating a minimum of 0.5% of construction costs for permanent, site-specific artworks that help enhance rider experience and community identity, and encourage transit use.

See MR-10: Changes to Community Character.

- 1992-64 The commenter's support for the No Project Alternative is noted. All comments have been shared with Metro Board for their consideration. See MR-1: Selection of Alternatives.

APPENDIX 1-E: ERRATA TO THE FINAL EIR'S PUBLIC COMMENT ON THE DRAFT EIR

Executive Summary of Comments & Concerns with respect to Draft Environmental Impact Report dated January 2023, C Line (Green) Extension to Torrance

This environmental impact report is a massive document, being fully 1000 pages long. Reviewing such a document is an immense task which realistically takes more than the few short weeks provided. Nevertheless, we the undersigned have reviewed it as well as possible and have identified comments, questions, and concerns which are critical to address.

The document has an immense amount of detail in it, however important factors sometimes get swamped out by excessive verbiage and numerical data. The most important of these issues is the reason for the desire to build the Green Line Extension in the first place. We are told that Los Angeles has the worst air pollution in the nation, and we read about diseases contracted from said pollution that makes the situation sound scary. No one wants to breathe polluted air. Except for all the smokers amongst us. The document fails entirely, however to note that the life expectancy of Los Angeles residents is well within the top 10 in the nation. Suddenly the concern about the air quality pales. It pales even more when one considers the \$1 billion dollar price tag for 4.5 miles of rail. What is the purpose of building this railroad if we already enjoy the best lifespan in the nation? Furthermore, there is no discussion whatsoever regarding freedom of choice for the traveler to select the mode of transportation the individual desires. Diversity of transportation choices is glorified, with no mention of how people are going to be forced out of their personal automobiles and onto the train. Will personal vehicles get sky high taxes? Will personal vehicles get outlawed for the common folk? We are already seeing the government telling us what kind of personal vehicle we will and will not be able to buy in the future. What other losses of freedom will come along with the building of these 4.5 miles of track?

Also missing from the document is any meaningful presentation of options other than the proposed, the trench and the Hawthorne options. Why isn't the same amount of text provided for the no build option as for the other three options? How about considering the Hippocratic oath – first, do no harm. Is spending \$1 billion dollars doing taxpayers harm? Is sending trains down tracks adjacent to homes every five minutes going to do harm? Is creating a construction zone in the neighborhood for 5 to 10 years with up to 200 trucks per day doing harm? The no build option does none of this. The no build option is rejected based on projections for the year 2042 based on the mathematically unsound principle of extrapolation of data. Extrapolation of data is a means to lose reality in a hurry. There is no error analysis presented for any of the data in this 1000 page document. Noise and vibration problems which are guaranteed to exceed legal standards from the get-go are brushed off against projected pollution 20 years from now with no error analysis provided. That is unsound judgement, unsound science, and unsound engineering. First, do no harm.

Safety is not addressed in any significant fashion. Metro rail is declared to be safe travel, but what is safe about walking into an enclosed, locked container with absolute strangers who may rob you or stab you or worse, and walk away with impunity? And travelers who are not victims of violent crime are at high risk for contracting airborne diseases such as covid which thrive in enclosed places, especially those like the Metro trains which do not have adequate air filtering onboard. Concerns like these need to be addressed. They are not presumably because they make the no build option look good.

We see much discussion of noise and vibration. And we see a LOT of discussion of mitigation of noise and vibration. Mitigation is presented as noise reduction, but if we look at the data honestly, the environment just gets louder. A lot louder. Numbers are presented to make it look as if heavy freight

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plus light rail is quieter than heavy freight alone. This sort of data manipulation is an outrage, and calls into question all the numbers in the entire document. Just how much data manipulation is going on here, that isn't quite so obvious?

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1992-8

We find within this document that Metro is not suggesting that they build with the absolute least environmental impact as is possible. Far from it. Metro finds "published significance levels" that they think they might meet, and if their simulation shows they did better than that level, then Metro tells us that the issue is "less than significant". Any additional noise in our environment is significant. Any additional vibration in our environment is significant. Any additional wires strung up to blight our view of the sunrise or sunset are significant. If Metro wants people to think that this effort is for the purpose of improving quality of life (which they don't say anywhere), then the least they can do is to make the design minimize the environmental impact, as opposed to just meeting some standards which might be good enough somewhere, but are not good enough for this project.

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Buried within this document we also discover the political nature of this project when we see that politicians have deemed resident's travel time to be unworthy of consideration, and consequently unworthy of Metro's consideration. With this blatant disregard for the quality of life of human beings, Metro's suggestion that this 4.5 mile stretch of track will improve our lives becomes highly doubtful. Apparently Metro has no idea what it is that will improve (or prevent destruction of) our quality of life.

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Assuming that everyone has made up their mind already to build without sound reason to do so, the very least consideration that could be had for human beings in the area is to eliminate the proposed solution and the trench option, both of which would be a major daily, minute by minute disturbance in the lives of everyone who lives near the existing right of way.

There are numerous references to cost effectiveness of transportation related construction as demanded in legislation in this document, however, nowhere is the cost effectiveness of no build vs the other three spelled out in this document. Regardless of cost or cost effectiveness, this document is riddled with the phrase "as feasible". It would appear that in spite of page after page of data in numerous tables, there is no assurance of reaching environmental goals specified herein. With the contractor responsible to police himself, results don't seem likely to match the advertised claims.

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Let's move on to paragraph by paragraph, page by page comments:

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Specific concerns and references:

Construction time is declared to be 5 years, or 7 years depending on the option selected (ref paragraph 2.4-1). But construction never seems to go as planned, so we might easily be looking at 10 years of construction. Even 5 years is an enormous amount of time to be dealing with construction problems – traffic delay, congestion, noise, vibration, pollution etc etc. This document refers to construction as “temporary” (paragraph 3.1-4.2.1) in nature. How is 5 to 10 years “temporary”? Kids grow up in that amount of time.

1992-12

Table 2.4-1 (and Table 3.4-6) says that we should be expecting 101 truckloads in the neighborhood daily for 6 months. 101 trucks!!! Daily!!! But we also need to expect an additional 12 months (a full year!) of 60 trucks daily. But it gets worse: Table 2.4-2 (and Table 3.4-7) says to expect 200 trucks daily for 3 years, plus 110 trucks daily for 8 months, plus 54 trucks for 18 months. This is an insane amount of traffic clogging neighborhood streets. Life will not be the same during this construction project. Quality of life will drop like a rock. How much suffering must the neighborhood endure in order to satisfy people that greenhouse gas concentrations (might) go down? It’s about quality of life, folks.

1992-13

Paragraph 3.1-4.2.1 ignores heavy truck miles and worker miles traveled in the analysis as specified in note 3 which says that heavy truck miles “could” be counted in the analysis. It should be obvious to the casual observer that if heavy truck miles and additional worker VMT are not counted in the analysis, then the analysis results will be invalid.

1992-14

Paragraph 3.1-4.4.1 claims that construction would have a “less than significant impact” on emergency vehicle access. It is EXTREMELY unlikely that 200 trucks per day (ref Table 2.4-2) would NOT have a significant impact on emergency vehicle access. If our streets today are so empty and devoid of traffic that the addition of 200 trucks per day (plus worker vehicles) in the neighborhood would have no impact on emergency vehicle access, then certainly there would be no need for this green line extension in the first place. Just claiming that there is no impact does not make it so. This is a serious concern. Furthermore, paragraph 3.1-3.13 tells us that the Redondo Beach fire department response time is 4 minutes and 16 seconds. Increasing this response time by a minute or more while waiting for huge dump trucks to get out of the way will not decrease the response time, it will increase the response time. The writer of this document may reconsider the “less than significant” tag on this issue when they discover their house is on fire. Increasing emergency response time is very significant, and unacceptable. It is one more way in which this project reduces the quality of life of residents.

1992-15

Paragraph 3.1-4.4.1 claims that operation would have a “less than significant impact” on emergency vehicle access. If gates close access across the tracks for a minute in 5 minute intervals, then there is a very significant likelihood that you’ll see firetrucks and/or paramedics sitting at the railroad crossing regularly. Paragraph 3.1-3.13 tells us that the Redondo Beach fire department response time is 4 minutes and 16 seconds. Making firetrucks and or paramedics wait for a minute at a railroad crossing would increase the response time for these calls by 25%. It would increase by an even larger percentage for the responses which are better than 4 minutes otherwise. Again, this would not be considered “less than significant” if your house were on fire, or your child had been hit by a vehicle. This is a very significant issue and it needs to be treated as such and not simply brushed aside. Metro needs to spend more effort putting people first (page 3.3-1) and less effort chasing esoteric greenhouse gases which may or may not have any effect at all on your quality of life.

Table 3.3-3 tells us that Redondo Beach requires that “public sites be designed to incorporate landscaped setbacks, walls, and other appropriate elements to mitigate operational and visual impacts on adjacent land uses.” How exactly does Metro intend to mitigate the blight of the overhead wires that would be visible from our back yard every single day? While cities across the country are going to extreme efforts to shift to underground services to eliminate the blight of overhead wires, Metro intends to string overhead wires adjacent to our property as if we don’t have enough of that already. This is an environmental impact that affects our scenic view. Metro may think that we do not possess a scenic view from our house (Table ES-2, paragraph 3.3-1, paragraph 3.3-4.3.1, and others), however from our perspective, every sunrise is a scenic view (paragraph 3.3-2.3 a). A scenic view that will apparently be crisscrossed in the future with overhead power lines having “a substantial adverse effect on a scenic vista”. How is Metro going to eliminate this problem? The horizon for this project is 2042 (paragraph 3.1): doesn’t Metro assume that utility wires will be undergrounded by then? Paragraph 3.3-2 claims that Metro recognizes viewer sensitivity to the project, but claims that residential viewers have only “moderate sensitivity”. This is nonsense, as residents in adjacent homes have to stare at this project every day of their lives. How is that not a high sensitivity issue? Furthermore, Metro trains running past our back yard offer the perfect opportunity for perps to check out what they would like to steal next from the comfort of a railcar. How would children playing in the back yard be protected from the prying eyes of the miscreants of society? What once was a private sanctuary now becomes a public viewing site for anyone who feels inclined to take advantage of the government subsidized viewing railcar. This is a serious environmental impact -shifting our privacy to public viewing. This is a reduction in quality of life. None of this addressed in the environmental impact report. But it directly affects the environment we live in. Paragraph 3.3-6.1 says “With the incorporation of the mitigation measures described in Section 3.3-5, the Proposed Project [which passes adjacent to our back yard] would not result in any significant impacts related to aesthetics.” This is far from true.

1992-16

Figure 3.3-59 shows examples of existing Metro soundwalls. What is missing from these photos is the graffiti which will surely adorn these walls soon after their construction. This is what is called an attractive nuisance.

Figure 3.3-66 KOP 10 does not show any soundwalls, therefore this is not a legitimate representation of the “after” view as specified in paragraph 3.3-4.3.2 KOP 10.

1992-17

Figure 3.3-68 KOP 12 is missing the “after” simulation view. There is no significant difference between the two views shown.

1992-18

Paragraph 3.3-4.4.1 tells us that the “heavy equipment” [i.e. bulldozers, scrapers, and trucks] used does not have sufficient “height and mass” to cast significant shadows. Please explain exactly how much mass is required in order to cast a significant shadow. It would appear that Metro either does not know what it is that causes shadows, or Metro does not really understand what mass is. Maybe both. Explain what the meaning of this statement is supposed to be, and then correct it, as it calls into question Metro’s understanding of science and engineering and casts a shadow (so to speak) on the whole environmental impact report.

1992-19

Paragraph 3.4-1.3 tells us “While Southern California is a leader in reducing emissions and ambient levels of air pollutants are improving, the SCAG region continues to have the worst air quality in the nation.” Be that as it may, the Los Angeles-Long Beach-Anaheim metropolitan area enjoys a life expectancy in the top ten cities in the nation, and life expectancy in the US has been consistently

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increasing for many, many decades. It would be tempting to conclude that increased vehicle miles traveled (VMT) and increased air pollution lead to a longer life, would it not? Not many folks would likely be willing to go along with that train of thought, nevertheless, the data suggests that spending a billion dollars to extend train tracks 4.5 miles in order to push people out of their automobiles and thus reduce greenhouse gases is a cause without a real purpose behind it. The metro.net website claims: “We’re building more rail lines to reduce the amount of time spent in traffic. It’s part of Metro’s plan to make it easier to get around LA.” And yet if Metro doesn’t include LOS (Level of Service) in their analysis for the Greenline Extension proposed, how can Metro claim they are building rail lines to reduce the amount of time in traffic? Where is the data that shows that building a 1 billion dollar, 4.5 mile track extension measurably reduces traffic delay?

1992-20

On page 3.4-7 we are told that the SCAQMD is responsible to (among other things) “minimize the fiscal impact that pollution control measures have on local economies.” One billion dollars is a pretty large fiscal impact to the local economy, is it not? There are 10 million residents in Los Angeles county. If every man, woman and child in LA county were to contribute \$100 towards building this 4.5 miles of track, you would still not likely be able to finish the project, and yet only a teeny, tiny fraction of those 10 million people would ever set foot on the train. Is that fiscally responsible? If so, then what would be the price tag where Metro would determine that it is NOT fiscally responsible? Does such a number even exist, or is this an issue wherein it has been determined that the track will be extended without regard to fiscal concerns?

1992-21

3.4-2.3 Operational Air Quality Methodology There are so many factors that are estimated for this analysis, plus the extrapolation out to 2042, makes this analysis really nothing more than an educated guess. From Wikipedia: “In mathematics, extrapolation is a type of estimation, beyond the original observation range, of the value of a variable on the basis of its relationship with another variable. It is similar to interpolation, which produces estimates between known observations, but extrapolation is subject to greater uncertainty and a higher risk of producing meaningless results.”

Paragraph 3.4-2.3.1 speaks of the qualitative (not quantitative) analysis used:

“Notably, because operations of the Proposed Project and Options would reduce VMT in any year, operational air quality impacts would be less than significant in all years, including under an existing (2021) baseline. For the reasons described above, however, the use of a future (2042) baseline provides a more accurate assessment of the long-term operational air quality benefits of the Proposed Project and Options.”

1992-22

Metro needs to understand and publicly admit that extrapolating data out for over 20 years is a very, VERY risky business in a situation with so many constantly changing variables. To call such a mathematical operation “accurate” is an absurdity. If Metro intends to “stick to their guns” on this, then provide the public with a complete error analysis to show just how much unknown error there is in this data, and the effect thereof.

Paragraph 3.4-2.4 Significance Thresholds, tells us that the CEQA delegates authority to set thresholds of significance relate to air quality. The take away from this entire paragraph is that someone or some group of people set thresholds of their choosing, ostensibly based on guidelines. The fact is that the guidelines could change at any time for either political, fiducial, or scientific or other reasons, and there is no reason to believe that at any point in time different people would elect to set the standards at the same identical number. Thus we conclude that Significance Thresholds contain a significant arbitrary

1992-23

element. Therefore, care must be taken to avoid considering Significance Thresholds to be absolute. Just because you meet a threshold, does not mean the impact is “less than significant”.

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Paragraph 3.4-4.1 states: “The project is a transit infrastructure improvement project that would not introduce any new growth in residential (population/housing) or nonresidential (employment) land uses to the RSA.” This claim is in direct conflict with paragraph 3.4-1.3 which states: “...the Growth Vision directs growth towards specific types of transit-oriented planning areas...”, and: “Development in these areas will be guided by the following Connect SoCal strategies to reduce air pollutant emissions: focusing growth near destinations and mobility options; promoting diverse housing choice...”. Note that “promoting diverse housing choice” means “increasing housing density” in layman’s terms. This is what we call positive feedback, because the selected solution to the so called pollution problem actually makes it worse. You can create higher density housing near transit centers, but you cannot with any certainty conclude that the individuals that live there will utilize the transit as opposed to the preferred method of transportation the Southern California – the private automobile. See further text refuting the claim to not introduce new growth on page 3.16-3 & 4.

1992-24

Paragraph 3.4-4.1.1 tells us that environmental impacts due to construction would be “less than significant”, yet in previous paragraphs on the very same page the text ASSUMES that construction will create emissions in excess of the SCAQMD mass daily thresholds during construction activities. The text then goes on to explain the methodology used to ignore these excess emissions in order to claim that environmental impacts due to construction would be “less than significant”. If the significance thresholds selected really are significant, and if construction efforts exceed those numbers, then the environmental impact due to construction is SIGNIFICANT. Let’s just think about this: 200 trucks per day in the neighborhood, PLUS all the other construction equipment working at the same time. How could this possibly NOT be a significant environmental impact?

1992-25

Paragraph 3.4-4.1.1 also states: “Construction of the Proposed Project would not introduce new growth in population or housing to the RSA. The construction crews contracted for the Proposed Project would be predominantly from the local employee pool, and it is not anticipated that construction activities would result in construction worker moving to the area to perform the work.” This is purely conjecture. Metro does not know this to be true. It is convenient to the story that Metro is trying to tell, in order to get the desired results of the analysis, but there are no facts to back up the claim. Ditto for similar unfounded claims for the trench option and the Hawthorne option.

1992-26

Paragraph 3.4-4.1.1 also states: “The emissions modeling for the Proposed Project assumed that construction contractors would enforce compliance with these control strategies...”. This is a perfect example of the proverbial “fox watching the henhouse”. The contractor has no incentive to adequately enforce the rules. This is a bad idea.

1992-27

Paragraph 3.4-4.1.1 under the Trench Option paragraph has an example of one of the bad grammar sentences sprinkled throughout the document: “Regulatory policies and control measures that would regarding emissions during construction are summarized in Table 3.4-14.” It doesn’t make sense, does it? It is critical that a document of this nature be clearly written. There are too many of these sort of problems throughout the document to list them all here. Fix the document.

1992-28

Paragraph 3.4-4.1.1 addresses construction noise impacts, however nowhere within the text is there a mention of the piercing, irritating wail of the backup beeper installed on large trucks. This sound can be

1992-29

heard ¼ to ½ mile away, far out of eyesight from the trucks. With 200 trucks per day encroaching on our neighborhood, this sound will create a veritable cacophony of noise that no one wants to hear. How is Metro going to deal with this irritation that will be with us for 5 to 10 years during construction?

1992-29

Paragraph 3.4-1.2 tells mentions that “The light rail vehicles would be propelled by electricity and would not directly consume petroleum fuels whose combustion would create air pollutant emissions.” We should probably feel good about this fact, however the text goes on to state that emissions that WOULD be produced elsewhere to provide the energy to propel the vehicles are someone else’s problem, so they are basically ignored.

1992-30

The text goes on to say that “Operation of the Proposed Project would not introduce a new permanent source of air pollutant emissions to the SCAB.” Similar claims are made for the Trench option and the Hawthorne option, and similar claims are made in paragraph 3.4-4.3.2. Assuming that these light rail cars use friction brakes, then this statement is absolutely false. Paragraph 3.9-3.1.2 of this same document describes pollution from the brake pads of rail cars.

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Furthermore, the text makes the claim that light fixtures for the project “would use high-efficiency LED lighting to reduce electricity consumption.” When you go from no lighting (zero lighting) to some nonzero amount of lighting, you don’t “reduce electricity consumption”, you increase it, regardless of the efficiency of the lighting you put in. So what is being said is that the lighting is goodness, because there is a way to actually make it worse. This methodology could be used to justify anything as goodness, as there is always a way to make anything worse. The text would, however, be suitable to impress gullible readers. Keep in mind that LED lighting is pretty much the standard these days, so Metro would likely have to go out of their way to install lighting less efficient than that of LEDs, which makes the claim about reducing electricity consumption all that more senseless and insulting to the savvy reader.

1992-32

Paragraph 3.4-4.4.2 tells us that the railcars use “high-efficiency air filters rated at MERV-8 or higher”. At least one filter vendor on the market states that “MERV 8 filter is the minimum standard air filter we recommend for residential use.” Obviously such a filter will do absolutely nothing when it comes to dealing with something like the covid virus, although we can be assured that in case we avoid having someone breathe the covid virus in our face, it will be recirculated back to us every 2 to 4 minutes. How does this revelation align with the supposed safety of travelling on a Metro railcar? What it tells us is that if you want to remain healthy, then travel around in a personal automobile, as your likelihood of dying from covid are orders of magnitude worse than the likelihood of dying from any greenhouse gas related illness.

1992-33

3.4-7 Cumulative Impacts tells us that the model doesn’t match actual measurements. Also tells us that emissions are dropping dramatically. Brings into question the target numbers and the reasoning behind them, given that people are living longer all the time these days, despite the self-inflicted maladies like obesity, recreation drugs, alcoholism etc. If it’s all about quality of life, then why take billions of dollars of taxpayers’ money and spend it on something that taxpayers don’t use? Is this all about increasing the quality of life of a minute percentage of the population at the expense of the vast majority of the population?

1992-34

Table 3.6-11 Noise Monitoring Locations and Measured Ambient Noise Levels lists noise site 17 as being located at a residence located at 2570 Artesia Blvd in Torrance. The address 2570 Artesia Blvd is at least a mile from Hawthorne Blvd, if it exists at all, so this is bogus information. Figure 3.6-7 puts this address

1992-35

on Condon Ave adjacent to site 18, which clearly conflicts with table 3.6-11. If we are to believe the data provided in this section, then Metro needs to provide legitimate information.

1992-35

Paragraph 3.6-2.3.3 Review of Detailed Vibration Analysis for Other Projects describes tests done over a decade ago in a location miles away from the present project location and cited herein so as to validate the methodology of test simulations vs actual measurements. The simulation vs test results were “typically within 1 VdB” we are told, which demonstrates reasonable agreement for these particular measurements. But it gets more complicated, as follows:

Paragraph 3.6-3.2 Vibration and Table 3.6-12 Measured Train Pass-by Vibration Levels at 50 feet describe recent simulations vs actual measurements performed at the present project location. Some of these simulations vs tests agreed quite well (as did the decades old comparisons mentioned above), however some of the recent comparisons did not agree well at all. In fact, the test data differs from the simulation by as much as 14.8 VdB which means that the vibration measured was 5.5 times worse than the simulation. When your simulation is off by a factor of 5.5, you in essence do not have a viable simulation. Applying a fudge factor is not a reasonable means to accommodate for a factor as large as 5.5. The text goes on to delineate unsubstantiated guesses as to why the large difference occurred, however nothing is presented to back up this conjecture. The obvious conclusion is that Metro is either not capable of performing a reasonable vibration analysis, or Metro is not capable of performing a reasonable vibration measurement. Or maybe both. Because of this, the entire vibration portion of the environmental impact report is invalidated.

1992-36

Paragraph 3.6-1.1 Noise and Vibration Definitions and Background notes that this document uses the day-night noise level “ L_{dn} is a 24-hour L_{eq} with an adjustment to reflect the greater sensitivity of most people to nighttime noise. The adjustment is a 10-dBA penalty for all sound that occurs in the nighttime hours of 10:00 p.m. to 7:00 a.m.” Industry literature identifies the day-evening-night noise level (L_{den}) definition which more accurately describes the situation by penalizing 10-dBA from 11:00 p.m. to 7:00 a.m. and penalizing 5-dBA from 7:00 p.m. to 11:00 p.m. This schedule provides for some further protection from noise in the evening hours when many students would be concentrating on studying, and many workers would have already gone to bed. Furthermore, the simple day-night adjustment totally misses the penalty for the train in the evening. Convenient for Metro, but not good at all for residents. Metro needs to switch to the day-evening-night adjustment for noise calculations, or to something even more conservative than that.

1992-37

Paragraph 3.6-1.3 State and Regional Regulations, Table 3.6-7 City of Lawndale – Relevant Noise Codes, Goals, and Policies, Table 3.6-8 City of Redondo Beach – Relevant Noise and Vibration Codes, Goals, Objectives, and Policies, and Table 3.6-9 City of Torrance – Relevant Noise and Vibration Codes, Objectives, and Policies all use different wording to convey the same message: that noise needs to be reduced. This does NOT mean that a project should dream up the worst possible noise that it could make and to reduce the noise from that. What the text means is that from existing present day noise levels, projects should be designed to reduce noise from there. Metro intends to ignore all of these ordinances and increase the ambient noise, claiming goodness by various means such as variances from standards as follows:

1992-38

3.6-2.2.1 Existing Noise Conditions Metro intends to use existing ambient noise only as a reference to standards from FTA to see how much they can INCREASE the noise of the environment. They are not REDUCING the noise with this project; they are INCREASING the ambient noise. And yet the document proliferates with wording describing REDUCING noise. Let’s think about this: if the project increases

noise, then that is an environmental impact, plain and simple. And it is an impact that residents in the area are hopping mad about, while Metro prognosticates about reducing noise – which absolutely will not happen, mitigation or not. This is unacceptable. People live immediately adjacent to these tracks. People who want to be able to sleep without being woken up every 5 minutes. People who want to be able to carry on a conversation without being interrupted every 5 minutes. The noise from this project (both construction AND operation) WILL have a negative effect on the residents. Any possible effect on the residents from greenhouse gases should the No Build option be selected are highly unlikely IF they could be proven to be an effect at all. It is an absolute assurance of an environmental impact vs an esoteric possibility of an environmental impact.

1992-38

Paragraph 3.6.4.1.1 tells us that construction noise will be a “Significant and Unavoidable Impact”. “Therefore..... mitigation is required”. The description of “mitigation” is extremely interesting because of the words and phrases used to describe it: “comply with local ordinances where possible”, “construction ...would typically occur between the hours of...”, “Metro would also obtain a variance to conduct construction outside of the hours of the local ordinance.....”, “Nighttime or weekend construction may be required at times....”, “...in some instances the FTA construction impact criteria may still be exceeded.”, “There are no additional feasible mitigation measures that could be implemented to further reduce construction noise levels.” So the bottom line is that Metro’s noise mitigation is a weak effort (if it could be called an effort at all) to deal with the problem. The reader should observe that the paper’s description of “mitigation” is more like noise amplification, with no commitment to accomplish anything. Furthermore, the environmental report has the audacity to totally brush off the health and stress effects of construction noise that will be with us for 5 to 10 years: “...it is unlikely for construction noise to result in noise-induced hearing loss...” Metro is unconcerned about noise. Why doesn’t Metro use the same approach to brush off the suggested potential health related side effects of greenhouse gases?

1992-39

1992-40

1992-41

3.6-4.1.2 Operational Impacts “Overall, the Proposed Project would have a significant and unavoidable impact for light rail and for combined freight and light rail noise...” What more needs to be said? The transit plan is unavoidably LOUD. It will be LOUD the day it is built, and it will be LOUD in 2042. Every single day this hardware will create EXCESSIVE noise. Has Metro no shame in shoving this on the community?

1992-42

Table 3.6-16 Proposed Project – Combined Light Rail and Freight Relocation Mitigated Noise Impacts - this table shows numerous locations where Metro tells us that they are going to add light rail to the existing freight trains and the result will be quieter than it was before – without even doing any mitigation! The improvement in sound quality by adding light rail will be as much as 16 dB according to the table. 16 dB translates to 40 times less sound (10 dB is 10x less sound). This is nonsense. When a freight train goes by our yard, we will hear it, loud and clear. And when the light rail AND the freight train go by at the same time (a very high likelihood) we will hear even more noise. No one needs an environmental report with reams of ‘so called’ data to tell them otherwise. 40x less sound by ADDING light rail! This is crazy! Who knows what sort of data manipulation (or whatever) happened to generate these numbers, but this is not the clear, transparent, open, honest communication that the public needs to see regarding this proposal.

1992-43

Figure 3.6-1 plainly tells us that a quiet urban daytime noise level is 50 dB. Metro wants us to accept 78 dBA (630 times more noise, ref page 3.6-48) every 5 minutes as a train goes by and then has the gall to

1992-44

tell us not to expect permanent hearing loss (page 3.6-34 and many other places). Furthermore, Metro tells us to stay inside with the windows closed in order for us to find our own way of hiding from the noise and (hopefully) getting a 20 dBA reduction in noise. It is none of Metro's business whether residents are inside or outside. It is Metro's business to reduce the noise (ALL train related noise) from where it stands today. Elimination of horn blowing does NOT eliminate the need for the trains to be silent. Noise is unwanted sound. The sound of the light rail trains every 5 minutes is not wanted by anybody.

1992-44

Table 3.6-17 Trench Option and Table 3.6-18 Hawthorne Option - these tables suffer from the same malady as Table 3.6.16. We are expected to believe that the world gets quieter by adding light rail tracks. It doesn't work that way.

1992-45

Paragraph 3.6-4.1.2 on page 3.6-76 tells us that the Hawthorne option is fully expected to generate wheel squeal, and Metro intends to perform some simple mitigation and make it go away. A quick review of literature on the subject makes it clear that eliminating wheel squeal isn't necessarily a simple cookbook operation, especially for the long term. And wheel squeal is a hideous sound that really, REALLY irritates residents. Furthermore, prediction of wheel squeal is not simply a function of turn radius as Metro would have us to believe, although turn radius is likely the most significant contributor. The sound from wheel squeal is so very bad, however, that dealing with this AHEAD of time is CRITICAL. The residents need to be absolutely guaranteed that the trains will not go into service until the wheel squeal is eliminated. Not mitigated, but eliminated. No amount of wheel squeal is acceptable for any amount of time. Regardless of the option selected.

1992-46

Paragraph 3.6-4.3.1 tells us that we should expect "significant and unavoidable impact for both damage and annoyance impacts" due to construction of the proposed project. It is so bad, that we are told that the contractor would have to perform pre- and post-construction surveys to document preexisting damage, and damage that may have occurred from construction activities, and to repair damage caused by construction." (also noted on page 3.6-98 in paragraph MM-VIB-3: Pre- and Post-Construction Surveys). That is BAD. You know that construction is going to damage the neighborhood, but you don't care, so you do it anyway. What ever happened to Metro's plan to "put people first"?

1992-47

No need to go through all the details of the numbers here, but keep in mind that as discussed above (see notes on paragraph 3.6-2.3.3), Metro doesn't fully understand why their own vibration measurements were 14.8 dB greater than their analysis, so everything they publish about vibration measurements should be taken with a grain of salt, and we should expect the absolute worst. If Metro says damage to local buildings will be significant and unavoidable, the we should expect it to be VERY bad. Similar comments for Trench and Hawthorne options.

1992-48
1992-49

Paragraph 3.6-4.3.2 Operational Vibration Impacts doesn't even bother telling us up front that the operational vibration is bad – it just goes straight to addressing vibration with mitigation. The claim is that operational vibration impact is "less than significant impact with mitigation", however when you study the details, the reader discovers that Metro chooses to base their impact criteria on FTA significance, as opposed to the more stringent criteria from Redondo Beach and Torrance. And remember that "less than significant" means "less than the FTA standard" to Metro, as opposed to how the general public would interpret those words as meaning it is so small that it is indiscernible. And again, it is important to remember from the notes on paragraph 3.6-2.3.3 that Metro doesn't fully understand why their own vibration measurements were 14.8 dB greater than their analysis, so

1992-50

everything they publish about vibration measurements should be taken with a grain of salt, and we should expect the absolute worst.

Metro puts the annoyance vibration criteria at 72VdB, which is WAY above the human sense threshold (reported as 65 VdB on page 3.6-10). Table 3.6-8 tells us that Redondo Beach Section 4-24.504 says “The operation or permitting the operation of any device which creates vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property, or at 150 feet from the source if on a public space or public right-of-way, shall be prohibited.” So clearly Metro is totally ignoring Redondo Beach and the people thereof. And they will continue to ignore the residents every five minutes of every single day of the year as trains pass by. Likewise, Table 3.6-9 tells us that Torrance (in Section 91.32.4) declares that “No equipment, machinery or facility shall be operated so as to generate vibration, which is perceptible at or beyond the property line, without the aid of instruments to a person of normal sensibilities.” How does Metro intend to get away with violating Redondo and Torrance law every single time a train rolls by?

1992-50

The text on page 3.6-99 tells us in paragraph MM-VIB-5 that resilient fasteners shall be installed such that a minimum of 5 dB vibration is achieved. The text in paragraph MM-VIB-6 tells us that ballast mats shall be installed such that a minimum 10 dB vibration reduction is achieved. When you put the two together, one would expect a minimum of 15 dB of vibration reduction. Not near enough to make the 93 dB projection indiscernible as required by law. Nevertheless, the text on page 3.6-94 tells us that the combination of resilient fasteners and ballast mats COULD provide a combined vibration reduction of UP TO 15 VdB. So the text in one place says that 15 dB is the minimum, and text in the other place puts 15 dB as the maximum. Does Metro even know what the benefit would actually be of using these resources in this application?

1992-51

Paragraph 3.6-5 Mitigation Measures provides the MM-NOI-1 Noise Control Plan. This plan is very convenient for the contractor, because the contractor performs the continuous noise monitoring, and if the contractor sees fit to implicate himself then the contractor shall implement alternative construction measures to reduce construction noise as much as feasible. That, folks, is ZERO commitment. Worse than that, it is an example of the fox watching the henhouse. How could Metro possibly think that this approach will benefit the residents? How about this for a better approach: The contractor and/or Metro shall provide sufficient instrumentation for the local residents to monitor construction noise, and for every 5 minute period in the course of 5 to 10 years of construction that the contractor exceeds the noise limits (as measured by residents), the contractor shall be fined \$1,000,000, with proceeds being distributed evenly amongst residents living adjacent to the right of way.

1992-52

Paragraph 3.6-5 Mitigation Measures identifies the MM-NOI-2 Soundwalls. This mitigation plan is referred to in numerous places in the document as a means to resolve the noise problems inherent in this project. Reading through the plan is scary, right from the start. It begins with “where feasible....”. You can’t get much less commitment than that. But it goes on to declare that dimensions and design will be finalized during final design as necessary to reduce noise from light rail trains to below the FTA moderate impact criteria, AS FEASIBLE. Folks, there is NO commitment that any of these numbers are going to be met! Metro wants the go ahead for them to build track with no commitment to meet the requirements levied on them. It certainly won’t be hard to meet your goals when you have none.

1992-53

Paragraph 3.6-5 Mitigation Measures identifies the MM-NOI-5 Wheel Squeal Noise Monitoring plan. This mitigation plan makes no commitment to test for, and eliminate wheel squeal anywhere on the tracks except for 2 locations. Let's all hope that wheel squeal doesn't rear its ugly head anywhere else.

1992-54

Paragraph 3.6-5 Mitigation Measures describes the MM-NOI-4 Quiet Zone Establishment plan. We are led to believe that this approach is somehow linked to spending \$1 billion dollars and building 4.5 miles of track. It actually is entirely independent of the construction project. We could implement quiet zones today and get the benefit now without all the new construction. The problem is that if this plan were implemented today, then Metro would be held to tighter standards with respect to noise, and they don't seem to want that. It is easier to establish quiet zones AFTER construction, and claim this noise reduction as a feature of the addition of light rail. This is obfuscation of the matter at its best. This is shameful. Implement quiet zones TODAY, before any construction begins, and before any baseline noise measurements are taken.

1992-55

Paragraph 3.6-5 Mitigation Measures specifies the MM-VIB-1 Vibration Control Plan. This plan (similar to the MM-NOI-1 Noise Control Plan) is very convenient for the contractor, because the contractor performs the vibration monitoring (with no specifications regarding where, or how often the monitoring occurs), and if the contractor sees fit to implicate himself then the contractor shall investigate (not implement – just investigate) alternative construction means and methods to reduce construction vibration levels as much as feasible. Once again, that is ZERO commitment. And again, it is an example of the fox watching the henhouse. No requirement to do anything about the problem, and no penalty for either creating the problem nor for ignoring it. How is this putting the people first? The construction approach that Metro proposes is literally without control, and the local residents will suffer.

1992-56

Paragraph 3.6-5 Mitigation Measures specifies the MM-VIB-6: Ballast Mats. The plan here is to put rubber mats under the track to reduce vibration, as determined in the final design phase of the project. What is lacking is verification of the performance after completion of construction. There are numerous variations on the market for ballast mats, and selecting the correct one for the application will not be a simple task. Verification that the selected approach works effectively as built is critical. Furthermore, degradation of performance of this approach over time has not been addressed herein. Keep in mind that the horizon for this project is 2042, so not only is the performance of the ballast mats critical in the near term, but there must be a commitment that the performance does not degrade over time, with verification thereof.

1992-57

Paragraph 3.6-5 Mitigation Measures identifies multiple ways to reduce the unwanted noise and vibration inherent in the operation of a railroad, three of those being low impact frogs, resilient fasteners, and ballast mats. The touting of these devices to diminish the noise and vibration begs the question of why the project does not plan ahead to use these everywhere? The answer may well be that cost is prohibitive, or that Metro can squeak by simply by meeting FTA standards (and ignoring city standards). If cost is the issue, one would have to ask: "isn't 1 BILLION dollars enough?". And if meeting FTA standards is assumed to suffice, one would have to ask, aren't the lives of the residents near the right of way important enough to spend the effort to MINIMIZE the environmental impact, instead of just meeting (or almost meeting – where feasible) a standard which allows substandard design and construction to take place?

1992-58

Paragraph 3.6-6 Project Impact Remaining After Mitigation uses 10 pages of text and tables to tell us that construction and operation noise and vibration impacts are significant and unavoidable, even after

1992-59

mitigation – except for maybe the Hawthorne option. The text, however, obfuscates the issue by suggesting that MM-NOI-4 Quiet Zone Establishment plan is somehow a feature of the addition of light rail to the right of way, when it is not – it is an independent issue. Further obfuscation comes along with noise related to the trench option which we are led to believe puts the light rail all within a trench. The problem is that it has to come out of the trench somewhere, and our back yard is adjacent to grade level tracks whether the proposed plan or the trench plan is selected. Either way, when anyone stands in our back yard and hears the train go by (every 5 minutes) it will be LOUD. And we will all be left wondering how Metro manipulated the noise data to make us think that heavy freight plus light rail equals less noise than heavy freight alone.

1992-59

Paragraph 3.7-3.4 Sensitive Biological Resources Within the RSA tells us at the top of page 3.7-25 that “Due to its urbanized nature and fragmentation of any remaining open space, no wildlife movement corridors are present within the RSA.” This is not exactly true, as the right of way is itself a veritable freeway for the free and unobstructed movements of coyote in the area which serve to keep down the population of stray dogs and cats in the neighborhood. Coyote are rather shy animals and their presence would be diminished by light rail traffic storming through their territory every 5 minutes.

1992-60

Table 4.5-1 appears to be a significant table in the document, however the table has no legend, so it is anyone’s guess as to what it means. Do the letters “LTS” stand for “Less Than Sufficient”? What might “SUI” mean? There seem to be colors throughout the document that might have some meaning. What might that meaning be? Should the colors be presumed to be red(ish) and yellow(ish)? Put in a legend and make the table useful.

1992-61

Note on “less than significant levels” terminology: This terminology is pasted on anything which meets specified standards. If they can find a way to claim they barely meet the numbers, then suddenly the issue becomes “less than significant”. This is a misnomer to be sure, as simply meeting the cutoff, doesn’t make the issue “less than significant” from the viewpoint of the environment or the observer. It only becomes “less than significant” from a legal standpoint. Metro is turning shades of grey into black and white. And if they were to be honest about the situation, then anything that does not meet the specified standards should cancel the project. But for some reason it doesn’t.

1992-62

Graffiti is addressed in the document. Sadly, it is only addressed in the context of lead-based paint removal in the demolition process. Artwork is addressed – noting that 0.05% of funds will go towards art. But graffiti comes for free. And riders or not, the green line extension project will create a plethora of potential canvas boards for graffiti “artists” to show off. Is there another 0.05% of funds dedicated towards eliminating graffiti, and apprehending the perpetrators? How does Metro intend to keep this project from becoming an eyesore? Since this construction may be visible from our back yard (depending on option) then our environment would be devastated if we had to look at graffiti all the time.

1992-63

In conclusion: select the No Build option. Of the three other choices, only the Hawthorne option even remotely considers the lives of the local residents.

1992-64

Signed:

Philip H. Ives

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Redondo Beach