



MEMORANDUM

To: Town of Yucca Valley Planning Division
From: Alex Pohlman, Kimley-Horn and Associates, Inc.
Date: January 7, 2025
Subject: Yucca Valley Walmart Fuel Station – Noise EIR Addendum Analysis

PURPOSE

This comparative analysis has been undertaken to analyze whether the proposed Yucca Valley Walmart Fuel Station Project (Project) would result in any new or substantially more severe significant environmental impacts as compared to the conclusions discussed in the certified Yucca Valley Retail Specific Plan (Original Project) Environmental Impact Report (Final EIR) that was certified on June 25, 2008. The purpose of this technical memorandum is to assess whether any new noise impacts would occur based on proposed updates to the Project (described below) pursuant to Public Resources Code, Section 21166 and State CEQA Guidelines Section 15162.

ORIGINAL PROJECT

The Final EIR for the Original Project analyzed the development of a commercial retail center on approximately 25.51 acres located on the southeast corner of Twentynine Palms Highway (SR-62) and Avalon Avenue. The EIR analysis for the Original Project included a 229,000-square foot Walmart Supercenter, a 6-pump gas station, a 4,000-square foot fast-food restaurant with drive-through, and a detention basin. However, the Specific Plan, approved on August 14, 2008, did not include the gas station as a permitted use and the area designated in the EIR for the gas station and a 4,000-square foot fast-food restaurant with drive-through was ultimately developed with two smaller fast-food restaurants instead.

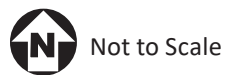
PROPOSED PROJECT

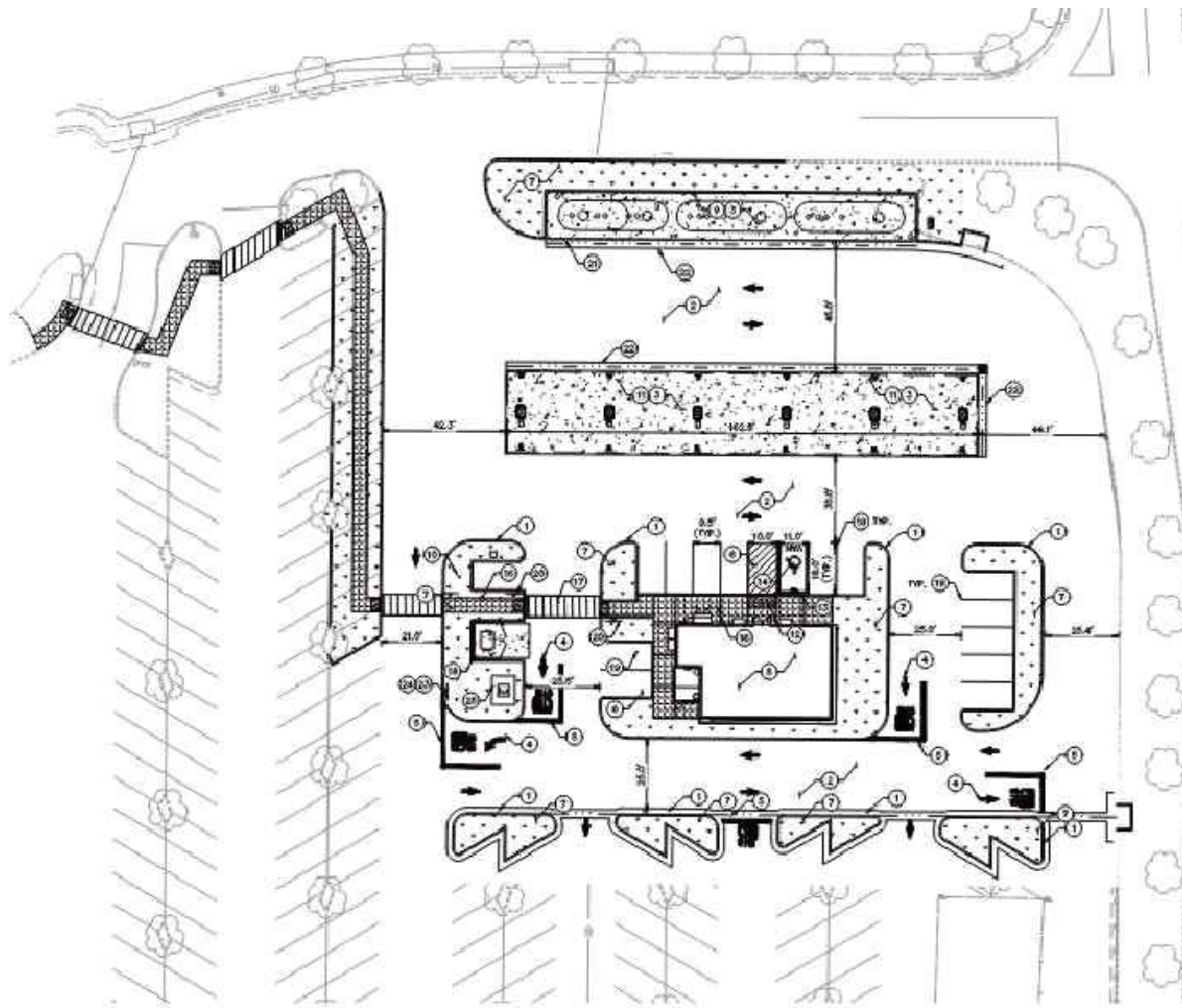
The proposed Project involves the development of a 6-pump fuel station similar to the one previously analyzed in the Final EIR, although in a different location. The fuel station would be located in the northeastern portion of the existing parking lot, south of the detention basin and SR-62, see **Exhibit 1: Local Vicinity Map** and **Exhibit 2: Conceptual Site Plan**.



Source: ArcGIS Pro

EXHIBIT 1: Local Vicinity Map
Yucca Valley Fuel Station Project





WALMART FUEL STATION - STORE #1915
 58501 TWENTYNINE PALMS HIGHWAY, YUCCA VALLEY, CA 92284

Source: Kimley-Horn Traffic Scoping Agreement

NOISE ANALYSIS

Previous Significance Determination: The Final EIR determined that construction would generate noise and vibrations that would result in significant and unavoidable impacts on nearby sensitive receptors. However, the Final EIR found that operational noise including noise generated onsite from mechanical equipment, parking lot activities, loading and unloading operations, as well as offsite noise generated from traffic associated with Original Project would be less than significant.

Proposed Project Analysis:

Threshold (a) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Temporary Construction Noise Impacts

Project construction is anticipated to occur over approximately 5 months and is scheduled to begin in November 2025 and completed in April 2026. Construction of the Project would commence with demolition of an area of the existing surface parking lot, followed by grading and excavation. Building foundations would then be constructed, followed by building construction, paving/concrete installation, and architectural coatings. Construction delivery/haul trucks would generally travel between the Project Site and SR-62.

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the residential neighborhoods near the construction site. However, it is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at a single point near sensitive receptors.

Construction activities would include demolition of the existing parking lot area, site preparation, grading, building construction, paving, and architectural coating. Such activities could require concrete saws, tractors, and dozers during demolition; graders, dozers and tractors during site preparation; graders, dozers, and tractors during grading; cranes, generators, tractors, forklifts, and welders during building construction; pavers, rollers, tractors, and a concrete mixer during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings.

The construction noise analysis in the Final EIR did not identify a numeric threshold when determining construction noise impacts. However, it is assumed the noise threshold used in the construction noise analysis is the exterior noise standard of 75 dBA L_{MAX} during the day (7:00 a.m.

to 10:00 p.m.) and 70 dBA L_{MAX} standard during the night (10:00 p.m. to 7:00 a.m.).¹ The Final EIR stated that the nearest residences to the Original Project boundary may be subject to short-term and intermittent, maximum noise levels reaching 81 dBA L_{MAX} and would potentially result in annoyance, resulting in a significant impact requiring mitigation.

The noise levels calculated in **Table 1: Project Construction Noise Levels** for the proposed Project, shows that the maximum noise level of construction equipment at the nearest sensitive receptor would be 73.7 dBA L_{MAX}, which is lower than the construction noise levels of the Original Project. Construction of the proposed Project would generate noise levels less than the Town’s exterior noise standard of 75 dBA L_{MAX} during the day. Construction is prohibited during the nighttime and therefore the 70 dBA L_{MAX} standard during the night would not be exceeded. As a result, Project construction noise would result in a less than significant impact.

| Construction Phase | Land Use | Direction | Distance to Property Line (feet) ¹ | Average Distance (feet) ¹ | Worst Case Modeled Exterior Noise Level (dBA L _{MAX}) ¹ |
|-----------------------|-------------|-----------|---|--------------------------------------|--|
| Demolition | Residential | North | 410 | 535 | 73.7 |
| Site Preparation | Residential | North | 410 | 535 | 69.4 |
| Grading | Residential | North | 410 | 535 | 70.7 |
| Building Construction | Residential | North | 410 | 535 | 68.9 |
| Paving | Residential | North | 410 | 535 | 68.4 |
| Architectural Coating | Residential | North | 410 | 535 | 59.4 |

1. To conservatively estimate construction noise, the loudest equipment is assumed to operate nearest to the property line of the closest sensitive receptors. All other equipment is distributed evenly between the property line and an average distance, with loudest equipment located nearest to sensitive receptors and quieter equipment further away

Source: Refer to **Appendix A** for noise modeling results.

Mitigation Program

The following applicable mitigation measure is identified in the Final EIR.

4.11.1A Construction activities are restricted within the Town to the hours of 7:00 a.m. to 10:00 p.m. Monday through Saturday. The following measures would reduce short-term construction-related noise impacts resulting from the project:

- During all project site excavation and grading onsite, the project contractor shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturer's standards.
- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.

¹ Final EIR Yucca Valley Retail Specific Plan, 2008. page 4.11-21.

- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

Conclusion

Project construction would generate less noise than identified in the Final EIR. Noise levels at the nearest sensitive receptor would reach 73.7 dBA L_{MAX} which is below the Yucca Valley's exterior noise standard. As a result, Project construction noise impacts would be less than significant. Although the proposed Project's construction noise levels do not exceed the exterior standard, mitigation measures identified in the Final EIR to reduce construction noise impacts would still be required to reduce cumulative noise levels. The Project would not result in any new impacts, or increase the severity of the previously identified impacts, with respect to construction noise. Additionally, no new information of substantial importance that was not known and could not have been known at the time the Final EIR was certified is available that would change the impact finding.

Operational Noise Impacts**Gas Station and Parking Lot Activities**

The Final EIR determined that operational noise from the Original Project, including the gas station would be less than significant. However, the Final EIR analysis did not provide noise levels for the gas station only, as a result, this noise analysis will use the noise levels identified as parking lot activities in the Final EIR. The noise levels from parking lot activities would be comparable to gas station noise levels because they include similar activities (i.e., car door slamming, car radios, engine start-up, and car pass-by). The Final EIR noted that these activities would generate approximately 60 dBA L_{MAX} at 50 feet.² The nearest sensitive receptor would be approximately 466 feet from the proposed gas station refueling area. At this distance, the gas station noise would attenuate to 40.6 dBA L_{MAX} which is lower than the Town's exterior noise standards of 75 dBA L_{MAX} during the day and 70 dBA L_{MAX} standard during the night. As a result, gas station noise levels and would result in a less than significant impact.

Truck Movements

The Final EIR determined that slow moving trucks would generate noise levels of up to 75 DBA L_{MAX} when traveling and breaking at a distance of 50 feet.³ The nearest sensitive receptor would be approximately 466 feet from the proposed gas station refueling area. At this distance, the noise generated by tanker trucks delivering fuel would attenuate to 55.6 dBA L_{MAX} and would result in a less than significant impact.

² Final EIR Yucca Valley Retail Specific Plan, 2008. page 4.11-21.

³ Final EIR Yucca Valley Retail Specific Plan, 2008, page 4.11-21.

Other Noise-Generating Activities

The Final EIR stated that buildings withing the Original Project would have rooftop heating, ventilating, and air conditioning (HVAC) mechanical equipment. The Final EIR states that rooftop HVAC units generate noise levels of approximately 65 dBA at a distance of 50 feet.⁴ Based on the site plan, the convenience store associated with the gas station would be approximately 626 feet from the nearest sensitive receptor. At this distance, the noise generated by the rooftop HVAC unit would attenuate to 43 dBA and would result in a less than significant impact.

Mitigation Program

None identified in the Original Project Final EIR.

Conclusion

The development of the proposed Project would not result in any new impacts, or increase the severity of the previously identified impacts, with respect to operational noise. Additionally, no new information of substantial importance that was not known and could not have been known at the time the Final EIR was certified is available that would change the impact finding.

Threshold (b) Result in a substantial permanent increase in traffic-related noise levels in the project vicinity above levels existing without the project.

As noted in the Final EIR, it takes a doubling of traffic volume to cause a three-decibel increase in traffic noise.⁵ Therefore, consistent with the Final EIR, vehicular traffic trips associated with the proposed Project would not result in significant traffic noise impacts on off-site sensitive uses.

The Proposed Project is anticipated to generate 826 daily trips. Vehicles accessing the site would either come from SR-62 or from Avalon Avenue. Based on the most recent data from the Caltrans Traffic Census Program (2022), the segment of SR-62 between Pioneer Town Road and the SR-247 north junction has an average annual daily trip rate of 24,000 vehicles per day.⁶ Conservatively assuming all vehicles associated with the gas station were to enter and exit the site from SR-62, the additional 826 vehicles would not be enough to double the existing traffic volume and generate a noticeable increase in traffic noise. Additionally, Table 5.14-3 of the Yucca Valley General Plan EIR states that the traffic volume of Avalon Avenue, north of Sunnyslope Drive, has 2,707 daily trips.⁷ Conservatively assuming all vehicles associated with the gas station were to enter and exit the site from Avalon Avenue, the additional 826 vehicles would not be enough to double the existing traffic volume and generate a noticeable increase in

⁴ Final EIR Yucca Valley Retail Specific Plan, 2008, page 4.11-21.

⁵ Final EIR Yucca Valley Retail Specific Plan, 2008, page 4.11-9.

⁶ Caltrans, Traffic Census Program, 2022. dot.ca.gov/programs/traffic-operations/census

⁷ Yucca Valley, General Plan EIR. 2014. <https://www.yucca-valley.org/home/showpublisheddocument/5603/637399893763570000>

traffic noise. Therefore, operational traffic associated with the proposed Project would result in a less than significant impact.

Mitigation Program

None identified in the Original Project Final EIR.

Conclusion

The development of the proposed Project would not result in any new impacts, or increase the severity of the previously identified impacts, with respect to traffic-related noise. Additionally, no new information of substantial importance that was not known and could not have been known at the time the Final EIR was certified is available that would change the impact finding.

Threshold (c) Result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The Final EIR determined that noise levels from loading and unloading operations for the Original Project may exceed the noise standards during nighttime hours at the closest residences. However, the operational noise levels discussed under Threshold (a) Operations associated with the operation of the proposed Project would combine to 56 dBA L_{MAX} . Assuming all these activities occurred at the same time during nighttime hours, the noise level would still be below the Town's exterior nighttime noise standard of 70 dBA L_{MAX} . However, although the proposed Project's operational noise levels do not exceed the nighttime standard, mitigation measures identified in the Final EIR to reduce noise impacts would still be required as part of the EIR to reduce cumulative noise levels.

Mitigation Program

The following applicable mitigation measures are identified in the Final EIR.

4.11.3A Nighttime operation of delivery trucks shall be limited to less than 30 minutes each.

4.11.3B Nighttime operation of delivery truck beepers shall be prohibited for on-site vehicles.

Conclusion

The development of the proposed Project would not result in any new impacts, or increase the severity of the previously identified impacts, with respect to established noise standards. Additionally, no new information of substantial importance that was not known and could not have been known at the time the Final EIR was certified is available that would change the impact finding.

Threshold (d) Result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

The Final EIR determined that residences nearest the Original Project would experience vibration levels that could cause annoyance. The Final EIR states that bulldozers and other heavy equipment would generate approximately 92 vibration velocity in decibels (VdB) of groundborne vibration at 50 feet and that at each doubling of the distance, the vibration level would be approximately 6 VdB lower.⁸ The Final EIR also states that annoyance often occurs when vibrations exceed the threshold of perception (65 VdB) by 10 decibels or more.

The Final EIR determined that existing residence located 150 feet to the west of the Original Project site would be exposed to vibration levels between 80 and 86 VdB during construction which would result in annoyance, while vibrations from operations (trucks and other on-road vehicles) would not. The Final EIR concluded that although groundborne vibration during construction would be temporary, impacts from groundborne vibration during construction would be significant and unavoidable, as no mitigation measures would reduce this impact to less than significant.

However, the proposed Project construction site is approximately 410 feet from the property line of the nearest sensitive receptor. Following the Final EIR's methodology of reducing groundborne vibrations by 6 VdB each time the distance is doubled, at 400 feet the vibrations from construction would be reduced to 74 VdB which is below the annoyance threshold of 75 VdB defined in the Final EIR. Therefore, construction vibrations would not cause annoyance and impacts from groundborne vibrations would be less than significant.

Mitigation Program

None identified in the Original Project Final EIR.

Conclusion

The development of the proposed Project would not result in any new impacts, or increase the severity of the previously identified impacts, with respect to groundborne vibrations. Additionally, no new information of substantial importance that was not known and could not have been known at the time the Final EIR was certified is available that would change the impact finding.

Threshold (e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

⁸ Final EIR Yucca Valley Retail Specific Plan, 2008. pg 4.11-26.

The Yucca Valley Airport is located approximately one mile west of the proposed project site. It is a privately owned airstrip which has been leased on a long term to the Yucca Valley Airport District. According to the Airport Comprehensive Land Use Plan for the Yucca Valley Airport, the proposed project site is located outside of the 60 CNEL contour line for Yucca Valley Airport. Although there may be occasional aircraft flyover noise that is higher than the ambient noise level, because the proposed project is located outside of the 60 CNEL contour line for the Yucca Valley Airport, airport noise levels at the proposed project site are within normally acceptable levels, resulting in a less than significant impact

Mitigation Program

None identified in the Original Project Final EIR.

Conclusion

There are no new potentially significant impacts associated with the development of proposed Project. Additionally, no new information of substantial importance that was not known and could not have been known at the time the Final EIR was certified is available that would change the impact finding.

Appendix A

Noise Data

Project:

Construction Noise Impact on Sensitive Receptors

Parameters

| | | |
|---------------------|---------------------------------|---|
| Construction Hours: | Daytime hours (7 am to 7 pm) | 8 |
| | Evening hours (7 pm to 10 pm) | 0 |
| | Nighttime hours (10 pm to 7 am) | 0 |
| Leq to L10 factor | | 3 |

| Receptor (Land Use) | Average Distance (feet) | Distance to Property Line (feet) | Shielding | Direction |
|---------------------|-------------------------|----------------------------------|-----------|-----------|
| 1 Residence | 535 | 410 | 0 | N |

| Construction Phase | Equipment Type | No. of Equip. | Acoustical Usage Factor | Reference Noise Level at 50ft per Unit, Lmax |
|-----------------------|----------------------|---------------|-------------------------|--|
| Demolition | Concrete Saw | 1 | 20% | 90 |
| | Tractor | 1 | 40% | 84 |
| | Tractor | 1 | 40% | 84 |
| | Tractor | 1 | 40% | 84 |
| | Dozer | 1 | 40% | 82 |
| | Combined | | | |
| Site Preparation | Grader | 1 | 40% | 85 |
| | Tractor | 1 | 40% | 84 |
| | Dozer | 1 | 40% | 82 |
| | Combined | | | |
| Grading | Grader | 1 | 40% | 85 |
| | Tractor | 1 | 40% | 84 |
| | Tractor | 1 | 40% | 84 |
| | Dozer | 1 | 40% | 82 |
| | Combined | | | |
| Building Construction | Tractor | 1 | 40% | 84 |
| | Crane | 1 | 16% | 81 |
| | Generator | 1 | 50% | 81 |
| | Man Lift | 1 | 20% | 75 |
| | Welder/Torch | 1 | 40% | 74 |
| | Welder/Torch | 1 | 40% | 74 |
| | Welder/Torch | 1 | 40% | 74 |
| | Combined | | | |
| Paving | Tractor | 1 | 40% | 84 |
| | Roller | 1 | 20% | 80 |
| | Concrete Mixer Truck | 1 | 40% | 79 |
| | Paver | 1 | 50% | 77 |
| | Paver | 1 | 50% | 77 |
| | Combined | | | |
| Architectural Coating | Compressor (air) | 1 | 40% | 78 |
| | Combined | | | |

| RECEPTOR 1 | | |
|-----------------|---------------------------------|--------------------------------|
| Distance (feet) | Noise Level at Receptor 1, Lmax | Noise Level at Receptor 1, Leq |
| 410 | 71.3 | 64.3 |
| 441 | 65.1 | 61.1 |
| 473 | 64.5 | 60.5 |
| 504 | 63.9 | 60.0 |
| 535 | 61.1 | 57.1 |
| | 73.7 | 68.2 |
| 410 | 66.7 | 62.7 |
| 473 | 64.5 | 60.5 |
| 535 | 61.1 | 57.1 |
| | 69.4 | 65.5 |
| 410 | 66.7 | 62.7 |
| 452 | 64.9 | 60.9 |
| 493 | 64.1 | 60.1 |
| 535 | 61.1 | 57.1 |
| | 70.7 | 66.7 |
| 410 | 65.7 | 61.7 |
| 431 | 61.9 | 53.9 |
| 452 | 61.5 | 58.5 |
| 473 | 55.2 | 48.2 |
| 493 | 54.1 | 50.1 |
| 514 | 53.8 | 49.8 |
| 535 | 53.4 | 49.4 |
| | 68.9 | 64.5 |
| 410 | 65.7 | 61.7 |
| 441 | 61.1 | 54.1 |
| 473 | 59.3 | 55.3 |
| 504 | 57.1 | 54.1 |
| 535 | 56.6 | 53.6 |
| | 68.4 | 64.1 |
| 410 | 59.4 | 55.4 |
| | 59.4 | 55.4 |

Distance Attenuation - Point Source

$$dBA_2 = dBA_1 + 20 \text{ Log}_{10} \left(\frac{d_1}{d_2} \right)$$

where:

dBA_1 = Reference Noise Level

dBA_2 = Estimated Noise Level

d_1 = Reference Distance

d_2 = Approximate Receptor Location Distance

| | dBA₁ | d₁ | d₂ | dBA₂ | |
|------------|------------------------|----------------------|----------------------|------------------------|-------------------|
| Receptor 1 | 60 | 50 | 466 | 40.6 | Parking Lot Noise |
| Receptor 2 | 75 | 50 | 466 | 55.6 | Truck Movements |
| Receptor 3 | 65 | 50 | 626 | 43.0 | HVAC |

Decibel Addition:

$$L = 10 \text{ Log}_{10} \left(\sum_{i=1}^n 10^{\frac{Li}{10}} \right)$$

| | |
|-------|----------------------|
| n 1 | 40.6 Parking Lot |
| n 2 | 55.6 Truck Movements |
| n 3 | 43 HVAC |
| Total | 56.0 |