Appendix B

Addendum to the Air Quality and Greenhouse Gas Analysis Report

Mitchell Air Quality Consulting

July 15, 2021

Ms. Damaris Abraham
City of Lake Elsinore – Community Development Department
130 South Main Street
Lake Elsinore, CA 92530

Subject: Bamiyan Marketplace Mixed Use Project – Addendum to the Air Quality and Greenhouse Gas Analysis Report

Dear Mr. Abraham:

Mitchell Air Quality Consulting (MAQC) has completed the following assessment of revisions to the traffic study prepared by Urban Crossroads dated June 22, 2021. The assessment was made for each of the CEQA Guidelines checklist questions related to air quality, greenhouse gases, and energy.

We also responded to comments from Helix Peer Review letter dated January 10, 2020, on our *Air Quality and Greenhouse Gas Analysis Report*. That report relied on data from a traffic study prepared by Darnell & Associates dated June 14, 2019. Helix proposed a correction to the energy intensity factors as identified that we have incorporated the correction to the 2019 report as an errata in this document.

If you have any questions, please call me at (559) 246-3732, or via email at dmitchell@mitchellaq.com

Sincerely,

David M. Mitchell

David M. Mitchell, Owner
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Response to comment 2nd peer review

Comment:

3. Page 67: Section 4.4.5 – The emission factors have been revised, but it is unclear how the 8.3 percent reduction was calculated. Following the method described in the initial comment woul yield the following results for CO_2:

$$\frac{680.89\ \frac{lb}{MWh}}{(1-0.16)} = 751.06\ \frac{lb}{MWh}\ (assuming\ zero\ renewable\ sources)$$

$$751.06\frac{lb}{MWh}x\ (1-0.33) = 503.21\frac{lb}{MWh}\ (assuming\ 33\%\ renewable\ sources)$$

Response: 630.89 pounds per Megawatt hour (lbs/MWh) is the 2007 default intensity emission factor for Southern California Edison (SCE), not 680.89 but the result, 630.89/0.84 = 751.06 is correct. The correct intensity factor accounting for a 33% CO_2 reduction from the CalEEMod default is 503.21 pounds per Megawatt hour (lbs/MWh). Reducing the intensity factor from the 578.23 lbs/MWh used in the original GHG analysis to the correct 503.21 lbs/MWh would reduce the emissions by approximately 13.0%.

(578.23-503.21)/578.23 = 0.13 or 13.0%

The 8.3% reduction in GHG emissions from RPS stated Page 93 paragraph 5 and Page 94 Table 16 was not correct due to the use of the wrong formula. Achieving the 33% RPS mandate from the 2006 baseline rate of 630.89 lbs/MWh to 503.21 lbs/MWh is a 20.2% reduction from 2006 rates in 2020.

(630.89 – 503.21)/630.89 = 0.202 or 20.2%

The 8.3% in the report understated the benefit of RPS, so the GHG impacts with the correct intensity factors are less with the correction.

Errata to the Air Quality and Greenhouse Gas Report

An error was identified in the utility energy intensity factor used in the analysis. The report used a reduction estimate of 8.3 percent to reflect compliance with the 33 percent Renewable Portfolio Standard (RPS) 2020 mandate. The correct percent reduction estimate is 20.2 percent from the 2006 baseline. The corrected text is provided below :

Page 67 Paragraph 4:

> By 2020, SCE, the electric provider for the project will be required to achieve the 33 percent renewable portfolio standard (RPS). SCE had 16 percent renewable energy in its portfolio in 2006 (CEC 2007). Therefore, to achieve a 33-percent reduction as required by California's Renewable Electricity Standard, 17 percent more renewable energy in the utility's portfolio is needed. In

2020, the utility will achieve 33 percent renewable energy, which would decrease the emissions associated with electricity by ~~8.3 percent~~ 20.2 percent from the 2006 baseline.

- Carbon dioxide: ~~578.23~~ 503.21 pounds/MWh
- Methane: 0.027 pound/MWh
- Nitrous oxide: 0.005 pound/MWh

Page 93 paragraph 5:

RPS is not accounted for in CalEEMod 2016.3.2. Reductions from RPS are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2020 (CPUC 2016). The reduction assumes that SCE will achieve the 33 percent RPS mandated by 2020, which would provide a~~n 8.3~~ 20.2 percent reduction from 2006 levels. The utilities will be required by new legislation to increase the use of renewable energy sources to 50 percent, but details on individual utility compliance have not been determined.

Page 94 Table 16:

Renewable Portfolio Standard (RPS)	Electricity purchased for use at the project site is subject to the 33 percent RPS mandate	CalEEMod adjusted energy intensity factors with SCE emission factors that show the company will achieve the 33 percent mandate.	8.3[8]

Table 16 with Correction:

Renewable Portfolio Standard (RPS)	Electricity purchased for use at the project site is subject to the 33 percent RPS mandate	CalEEMod adjusted energy intensity factors with SCE emission factors that show the company will achieve the 33 percent mandate.	20.2[8]

The analysis of GHG emissions related to electricity consumption assumed that emissions would be reduced compared to the CalEEMod default value with Southern California Edison (SCE) compliance with the RPS mandate. The electricity emissions estimate is based on the average emission rate in pounds per megawatt hour (lbs/MWh).

The CalEEMod default rate of 630.89 lbs/MWh) does not account for SCE achieving the 33 percent RPS mandate. The rate included in the project report to account for RPS compliance was 578.23 lbs/MWh for CO_2. Review by the peer review consultant indicates that the correct rate should be 503.21 lbs/MWh.

The original rate in the report was incorrect due to a mathematical error. The lower rate would reduce project electrical energy emissions by an amount proportionate with the difference in rates. Therefore, emissions would be lower using the corrected rate of 503.21.

As stated earlier, GHG impacts were assessed for significance using a qualitative consistency analysis. Therefore, the lower emissions resulting from the correction would not affect the significance finding.

Air Quality and Greenhouse Gas Report Addendum

Project Revisions

The traffic study revised Ingress/Egress has been changed to Right In/Right Out. Also, a discrepancy has been resolved between 140 exiting trips in the AM from the trip generation summary vs. the figures and LOS analysis reporting 31 exits for the same AM peak hour.

The 2021 TIA added a VMT analysis in response to comments. The revisions altered the trip distribution but did not result in an increase in project trip generation. Regional air quality and greenhouse gas impacts from motor vehicles are based on trip generation and trip length which were not affected by the changes in the TIS.

Localized air quality impacts can be affected if traffic congestion at impacted intersections is significantly increased. In this case, all intersections are expected to operate at LOS C or better with required improvements, so no significant localized impact would occur. A discussion of the impacts for each air quality and greenhouse gas CEQA Guidelines checklist question is provided below.

Impact AIR-1:	**The project may conflict with or obstruct implementation of the applicable air quality plan.**

Impact Analysis

Air quality plans are adopted to address regional criteria pollutant impacts. The revisions to the TIS have no effect on project regional emissions included in the air quality analysis; therefore, the revisions would not conflict with or obstruct the applicable air quality plan.

Impact AIR-2:	**The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.**

Impact Analysis

Cumulative criteria pollutant impacts are considered to be significant if the regional emissions exceed South Coast Air Quality Management District (SMAQMD) quantitative pound per day thresholds. The revisions to the TIS would not result in a change in project emissions; therefore, no cumulatively considerable increase in criteria pollutant emissions would occur.

Impact AIR-3:	**The project would not expose sensitive receptors to substantial pollutant concentrations.**

Impact Analysis

Projects that cause or contribute to an exceedance of an ambient air quality standard or exceed a health risk threshold adopted by the SCAQMD would have a significant impact on sensitive receptors. Changes to the project that increase onsite criteria pollutant emissions or that cause an increase in traffic congestion at impacted intersections, or increase toxic air contaminant (TAC) emission could result in a significant impact.

The revisions to the TIS do not change project trip generation, increase traffic congestion, or increase TAC emissions. Altering the ingress/egress to right only will improve traffic flow and reduce potential congestion caused by vehicles attempting to turn left across traffic.

The correction to peak hourly volumes had no impact on LOS at impacted intersections. No change in trip generation or vehicle idling would occur, so no increase in onsite TAC emissions would occur. Therefore, the revisions would not cause or contribute to an exceedance of any California or National Ambient Air Quality Standard or increase exposure of sensitive receptors to substantial pollutant concentrations.

Impact AIR-4:	**The project would not create objectionable odors affecting a substantial number of people.**

Impact Analysis

The revisions to the TIS have no relation to potential odor impacts; therefore, no increase in objectionable odors would occur.

Impact GHG-1:	**The project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.**

Impact Analysis

Project mobile source greenhouse gas emissions (GHG) are quantified based on trip generation and trip length at average vehicle speeds. The revisions to the TIS would not increase trip generation or trip length or affect the average vehicle speed; therefore, mobile source GHG emissions would not increase. Therefore, no change in the significance determination in the GHG section would occur.

The GHG analysis provided a quantitative analysis of project emissions to disclose this information to decision makers and the public. The City of Lake Elsinore adopted a Climate Action Plan in 2011 that included a community-wide target for 2020, but no quantitative project level GHG threshold has been adopted.

In addition, no new community-wide target has been adopted for 2030. In that situation, a qualitative consistency analysis with the CAP and other regional or local plans for the reduction or mitigation of greenhouse gases is appropriate. It is important to note that the CAP targets are based on consistency with State of California emission reduction goals in AB 32 and implemented with the 2008 ARB Scoping Plan. California reduced emissions to below the 2020 target in 2016, 2017, and 2018 and was expected to continue this trend through 2020 thereby achieving the AB 32 target. This means that emission reductions provided by sources within the City of Lake Elsinore combined with emission reductions from all other sources statewide were sufficient to result in cumulative emissions that were below the statewide target.

Pending adoption of an updated CAP with 2030 community targets or a project level quantitative GHG threshold, qualitative consistency with the CAP and the ARB Scoping Plans remains a feasible option for determining significance.

The California Supreme Court in the Newhall Ranch decision suggested that an analysis that assesses "consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities." The GHG analysis prepared for the project provides this consistency analysis.

Impact GHG-2:	**The project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of greenhouse gases.**

Impact Analysis

The revisions to the traffic study would have no effect on project vehicle travel that is basis of estimates of mobile source GHG emissions provided in the project analysis. Since the revisions have no effect on GHG emissions they would also have no impact on applicable plans, policies or regulations adopted to reduce GHG emissions.

Impact ENERGY 1:	**The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.**

Impact Analysis

The revisions included in the traffic study would not result in any change in energy consumption. Therefore, no wasteful, inefficient, or unnecessary consumption of energy resources would occur due the traffic study revisions.

Impact ENERGY 2:	**The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.**

Impact Analysis

In order for the TIS revision to conflict with or obstruct a state or local plan for renewable energy or energy efficiency, the revision must result in an increase in energy use. The revisions to the TIS do not increase vehicle travel or congestion that would increase idling emissions. Therefore, the revisions would not result in the project conflicting with or obstructing a state or local plan for renewable energy or energy efficiency.