

June 17, 2014

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Victoria Rutson

Director, Office of Environmental Analysis and Federal Preservation Officer

Surface Transportation Board

Office of Environmental Analysis

395 E Street, SW

Washington, DC 20423-0001

Re: Transmittal of Response to Comments made by Dignity Health-Mercy Hospital on the Final Environmental Impact Statement for the California High-speed Rail, Fresno to Bakersfield Section (CEQ# 20140125)

Dear Ms. Rutson:

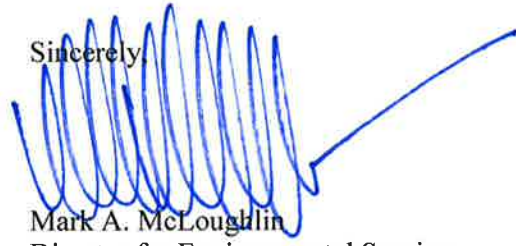
This letter transmits a response to the comments made by Borton Petrini, LLP, on the Fresno to Bakersfield Project Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS). Borton Petrini, LLP represent Dignity Health the owners of Mercy Hospital in downtown Bakersfield, California. Mercy Hospital submitted a comment letter on the Draft EIR/EIS in 2011. The California High-Speed Rail Authority (Authority) with the Federal Railroad Administration (FRA) responded to the comments. The response can be found in Volume VI beginning on page 54-77 of the Final EIR/EIS. Mercy Hospital submitted a comment letter on the Revised Draft EIR/Supplemental Draft EIS in 2012. The Authority and FRA responded to the comments. The response can be found in Volume V of the Final EIR/EIS beginning on page 40-823.

Dignity Health-Mercy Hospital's comment letter on the Final EIR/EIS dated April 30, 2014 is subdivided into three parts: Part I Comments on the Authority's Responses to Comments, Part II June 28, 2013 Comments and Lack of Response, and Part III Valley Fever. The letter referred to in Part II was sent to the Authority outside of the review periods of the Draft and Revised Draft EIR/EIS. Therefore, no formal response was required. Instead the Chief Executive Officer of the Authority with several of his staff, myself included, met with the President of Mercy Hospital in person in August 2013 to go over the substance of the letter. This transmittal letter contains the information that we provided to Mercy Hospital at the meeting held in 2013. This letter contains a comment by comment response. It also Finally it provides an update on the ongoing coordination that the Authority has been conducting with the California Department of Public Health to further protect personnel and the public from exposure to Valley Fever.

EDMUND G. BROWN JR.
GOVERNOR

The Authority appreciates the Surface Transportation Board's consideration of the Fresno Bakersfield High-speed Train Project. I specifically appreciate the attention that your office has made in preparing an environmental assessment of the project in support of the Board's deliberations. Should you or your staff need additional information or have any questions regarding this response, please contact me, Mark McLoughlin, Director of Environmental Services at (916) 403-6934 or via email at mark.mcloughlin@hsr.ca.gov.

Sincerely,



Mark A. McLoughlin
Director for Environmental Services

cc: Stephanie B. Perez, PG, Office of Railroad Policy and Development, Federal Railroad Administration
Bryan Porter, Environmental Lead, Program Management Team, California High-speed Rail Authority

Attachment: Response to Comments made by Dignity Health-Mercy Hospital on the Final Environmental Impact Statement for the California High-speed Rail, Fresno to Bakersfield Section (CEQ# 20140125)

Responses to Comments
Borton Petrini, LLP (representing Dignity Health-Mercy Hospital)
Letter Dated April 30, 2014

PART I
COMMENTS

1. The comments from Borton Petrini, LLP's April 30, 2014, letter are repeated or summarized below, followed by the response.

Comment re Response BO063-1: The response is entirely unsatisfactory and fails to address the issues raised by Bakersfield Mercy Hospital. Measurements, noise and vibration comments specifically said that the ambient noise environment at the south side of Mercy Hospital is dominated by the traffic on 16th Street, railroad operations and rail yard activities, a measurement position of ST-2 should have been selected to reflect this. However, instead, the noise environment at that position selected for ST-2 was dominated by the hospital's own mechanical equipment yard. The hospital's own noise cannot be included as part of the existing ambient noise that will be used to assess noise impacts on the hospital. The hospital's comment stated: "in summary, site ST-2 should have been located on hospital property away from any onsite mechanical equipment or other hospital related noise sources and it should have been compared to a long term measurement obtained at a location that is representative of the ambient noise environment at the hospital (e.g. the residential location on 16th Street immediately west of the hospital). This would have provided a more accurate estimate of existing ambient noise environment at the hospital." The Authority chose to disregard entirely the location of measurements and the appropriateness of the measurements and continues to state how the measurements were done but not show the accuracy or appropriateness of same.

Response: The noise measurement conducted at Site Short-Term (ST)-2, on the south side of Mercy Hospital, was selected due to its direct line-of-sight to where the High Speed Train (HST) would be constructed, which means there are no obstacles to attenuate noise between the HST and the hospital. This location allowed for the measurement of the existing ambient noise sources in the area (e.g., traffic on 16th Street, railroad operations and rail yard activities) and Mercy Hospital's existing mechanical equipment. If Site ST-2 were to be moved to the north side of Mercy Hospital, then the noise measurement would not represent the area that most likely to be affected by the noise of future HST construction and operations because project-related construction and operational noise would be attenuated by the hospital buildings. All noise sources measured at ST-2, which includes noise from Mercy Hospital's mechanical equipment, contribute to the total ambient environment in the area and should therefore be taken into account during the noise analysis. The location of the noise measurement site is appropriate to analyze potential impacts and is consistent with the methodology as described in Section 5.1.2 of the *High-Speed Ground Transportation Noise and Vibration Impact Assessment* (FRA 2005, 2012) (FRA Methodology).

The methodology used in the Final EIS is common engineering practice when comparing noise levels from short- and long-term noise measurement sites. This method is more fully described on page 3.4-19 of the Final EIR/EIS.

Comment re Response BO063-2: In response to Mercy Hospital's comment that the calculation procedures listed on the bottom of Page 4-11 and at the top of Page 4-12 for estimating the LDN based on short term measurements failed to comply with procedures identified in the FRA document, the Authority's response was not to deny but just to say the method had to be used in order to come up with estimated LDNs at noise sensitive receivers other than where long term measurements were set up. The Authority states it would not have been practical to conduct long term measurements at all of these locations. The comment does not explain why it isn't practical or its failure to follow the appropriate measurement standards involving hospitals.

Response: For the measurement Site ST-2, in preparation of the FEIS, the existing ambient noise level was recalculated using the method found in Option 4 of Appendix B of the HST Noise Assessment (FRA 2005, 2012). When that was done, existing ambient level was calculated to be 75.7 dB Ldn, and the potential impact to the hospital was reassessed. The results of analysis were the same as before, the hospital would be moderately impacted. As a result the 14 foot high noise barrier would shield the hospital and after mitigation there will be no impact according to the FRA methodology. The analysis used a method that was similar to and consistent with, the methods described in Appendix B of the FRA protocol. The method used for the analysis to estimate the existing ambient noise exposure level at Site ST-2 was compared to one of the methods described in the FRA methodology and the results were found to be the same. This shows that the method used for the analysis was consistent with that listed in the FRA methodology, and the mitigation results were the same; therefore, the method used for the analysis was valid.

Comment re Response BO063-3: The Authority once again fails to adequately respond to the comments of Mercy Hospital as to the inaccuracy of its measurement positions and incorrect calculations which make the measurements incomprehensible and therefore invalid. No real response is given to inaccuracies and mistakes made.

Response: Please see response to Comments BO063-1 and BO063-2.

Comment re Response BO063-5: In response to Mercy Hospital's comment that there were no ground borne vibration measurements conducted at Mercy Hospital or anywhere in the vicinity, the Authority merely stated that Mercy Hospital was located too far away from the existing rail to obtain an accurate measurement of vibration levels caused by existing operations. Such a comment shows that appropriate studies were not done for a project level environmental document.

Response: The closest hospital structure, the south building face of Mercy Hospital, is located approximately 385 feet from the centerline of the nearest BNSF mainline. This distance is well beyond the 275 foot vibration screening distance listed in Table 8-1 of the FRA methodology, therefore the Authority and FRA did not take a vibration measurement at this site when the

original noise and vibration measurements were conducted for the project. Since then, based on minor engineering modifications, the HST centerline is likely to be closer to Mercy Hospital and within the screening distances. Based on the vibration calculations made in the area during the SDEIS, Mercy Hospital will still not be impacted by vibration during HST operations. The distance to vibration impacts for hospitals (Category 1 Land Uses: “Buildings where vibration would interfere with interior operations”; see N & V Report, Table 3-26) was 62 feet from the centerline of the HST, as shown in Table 3.4-27 of Revised DEIR/Supplemental DEIS, Vol. I. Mercy Hospital is located approximately 185 feet from the centerline of the Bakersfield South HST alignment (the alternative that is the closest to Mercy Hospital and would thereby represent the worst case potential for vibration impacts). This is well beyond the vibration impact contour, and as a result, interior hospital operations would not be impacted by vibration during HST operations.

The FRA Manual recommends using a method that involves starting with screening distances, determining where measurements sites are needed and focusing resources on those areas that will have potential for impact. Since the FRA Manual is defined as “guidance” rather than “policy,” there is some room for reasonable modification of the procedures provided as long as they are well founded and reasonable.

The FRA Manual, Section 6.6.3, “*Noise Exposure Computations from Partial Measurements*” (FRA 2006) states: “Acoustical professionals are often adept at such computations from partial data and are encouraged here to use their experience and judgment in fully utilizing the measurements in their computation.” That’s exactly what was done for this project when calculating the existing ambient noise level at the short-term site was conducted, as described on page 3.4-19 of the Final EIR/EIS.

In the FRA Manual, Appendix D “*Determining Existing Noise*” the approach used to analyzed potential noise impacts for the HST project borrows from parts from two of the established methodologies in the FRA Manual. The analysis uses both Option 2 (full 24 hour Ldn measurements at all representative receivers) and Option 4 (applying a standard adjustment to short-term Leq measurements to estimate an Ldn). The difference between the methods is that instead of using the Option 4 standard Leq to Ldn adjustment constants (-2, +3, or +8 dB, depending on the general time of day), the HST project analysis used the actual Leq-Ldn difference measured at the nearby Ldn measurement location with exposure to similar noise sources for the precise time period that the ST measurement was made. This hybrid method of calculating the estimated Ldn level is not as direct as the method described in Option 2, but much more cost effective than Option 2, and it is more accurate than the method described in Option 4.

Comment re Response BO063-6: Mercy Hospital's comment was that there were no calculations presented in the draft EIR to substantiate the estimated project noise levels. The Authority responded basically that they quality checked their model and the results are accurate without explaining how.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both operation and construction. Specifically, Section 3.4.4.1, “Existing

Noise Levels” on page 3.4-19 discusses the method used to estimate the noise exposure levels at the short-term noise measurement sites. Additional technical information, including the results of the impact calculations for the three alignments in Bakersfield are presented in the Fresno to Bakersfield Noise and Vibration Technical Report, Tables 6-32, 6-33, and 6-34 published with the Revised Draft EIR/Supplemental Draft EIS in July 2012 and published with the Final EIR/EIS in March 2014. The Technical Reports were made available for public review during the comments periods following the publication of the Draft EIS, Supplemental Draft EIS, and the Final EIS.

Comment re Response BO063-11: Mercy Hospital commented on the use of barriers to mitigate noise and asked where the constraints came from since they are not found in the FRA document. The response of the Authority was that "these constraints conclusions were worked out between the noise consultants and the California High-Speed Rail Authority, and they are consistent with Caltrans restraints/conditions." There was still no citing of any authority for the use of the constraints included in the document.

Response: The citations of the constraints used to assess the reasonableness and feasibility of noise barriers can be found in Appendix 3.4-A of the Fresno to Bakersfield HST Final EIR/EIS. The Revised DEIR/Supplemental DEIS inadvertently did not include the citations of the constraints in Appendix 3.4-A, but they were included in Appendix 3.4-A of the Final EIR/EIS. These constraints are commonly used in determining the reasonability and feasibility of noise barriers and have been approved by the California High Speed Train Authority as part of its prior Merced to Fresno Section approvals, and then updated for purposes of the Fresno to Bakersfield section.

Comment re Response BO063-13: In response to Mercy Hospital's comment regarding mitigation measures for each floor of the hospital regarding sound intrusion, the Authority's response was that "noise impacts have been calculated for all floors of the hospital and the proposed mitigation will protect each of the floors at the hospital." There is no calculation of the noise impacts of the floors so, the mitigation cannot be validated.

Response: Calculations for Mercy Hospital are included in the following table below. A noise impact mitigation analysis was conducted for each floor of Mercy Hospital. The analysis showed that each floor of the building would receive at least a 5 dBA reduction in noise from each of the proposed alignments noise barriers. Each of the floors was independently analyzed by taking into account their elevation in relation to the HST, measured ambient noise levels, and distance from the HST centerline. These parameters were entered into the HST noise model for each floor and the results showed that the proposed mitigation measures will protect each of the floors at Mercy Hospital. The results of the calculations also demonstrate that there will be no impact to the hospital following implementation of the proposed mitigation.

Mercy Hospital Noise by Floor																		
Object ID	Site Name	Segment ID	Source Elevation	Structure Height	Receiver Elevation	Source to Receiver Distance	Profile	Existing Noise Exposure (Ldn)	Project Level Unmitigated (Ldn)	Total Level Unmitigated (Ldn)	Increase Over Existing (dBA)	FRA Impact No Mitigation	Mitigation Height	Project Level Mitigated (Ldn)	Total Level Mitigated (Ldn)	Increase Over Existing (dBA)	FRA Impact With Mitigation	Mitigation Reduction
60017	ST-002-B2-1	B2	0	63	5	187	Viaduct	79.9	71	80	0	Moderate	14	61	80	0	None	10
60018	ST-002-B2-2	B2	0	63	15	187	Viaduct	79.9	71	80	1	Moderate	14	62	80	0	None	9
60019	ST-002-B2-3	B2	0	63	25	187	Viaduct	79.9	72	80	1	Moderate	14	63	80	0	None	9
60020	ST-002-B2-4	B2	0	63	35	187	Viaduct	79.9	72	81	1	Moderate	14	64	80	0	None	8

Note: The source to receiver distance in this table represents the plan view of the Bakersfield South HST alignment (the alternative that is the closest to Mercy Hospital) which does not change between floors. The slant range distance from the source to the receiver does change between floors based on the horizontal distance and the change in the vertical distances. This change is accounted for in the calculations

Comment re Response B0063-18: Mercy Hospital comments that there was no analysis to substantiate the construction noise results presented in Table 8-6 and therefore the accuracy of the results could not be verified. The Authority mainly responded to that comment with generalization as to how they reached their results and the information is still not clearly enunciated.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both operation and construction. Additional technical information, including the results of the impact calculations for the three alignments in Bakersfield are presented in the Noise and Vibration Technical Report. The construction noise impact contour distances presented in Table 8-6 were derived using the equations shown on page 10-5 of the FRA's High-Speed Ground Transportation Noise and Vibration Impact Assessment (FRA, 2005, 2012) and are illustrated in Section 8.4 of the Fresno to Bakersfield Noise and Vibration Technical Report. The usage factors and list of equipment used in deriving Table 8-6 (p. 8-7) can also be found in Appendix I of the Fresno to Bakersfield Noise and Vibration Technical report.

Comment re Response B0063-20: Mercy Hospital comments that the potential impacts were mentioned only at residencies and that significant impacts would clearly occur at the hospital and should be identified. The Authority in its response to that comment, instead of showing how they would go about analyzing the hospital impacts, just states that the report will be changed to say "noise sensitive receivers." This obviously dodges the need at a project level to study the impacts on the hospital itself and adopt proper mitigation measures.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both construction and operation. Additional technical information, including the results of the impact calculations for the three alignments in Bakersfield, are presented in the Noise and Vibration Technical Report. The Technical Reports were made available for public review during the comments periods following the publication of the Draft EIS, Supplemental Draft EIS, and the Final EIS. Refer to the response to Comment B0063-13 above.

Comment re Response B0063-21: Mercy Hospital's comments point out that the use of pile drivers and other equipment would be a significant impact for the hospital. In response, the Authority just states that mitigation measures will be implemented and that the impact of construction will be significant under CEQA but, temporary in duration. It is to be pointed out that the mitigation measures in a project EIR should come before the project is approved so they can be commented on and studied by the citizens. Further, the construction period or, the type of equipment that is recognized to be significant under CEQA, would probably significantly impact the hospital. The mitigation measures for construction must be studied and commented on before CEQA's certification.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise and vibration impacts during both operation and construction, specifically refer to Section 3.4.7.1, "Construction Period", N&V-MM#2: Construction vibration mitigation measures, page 3.4-57. The analysis of potential construction period vibration impacts was conducted as

described in Section 10.2 of the FRA Manual (FRA 2006, 2012). The groundborne vibration impact criteria are listed in Table 3.4-13 of the Final EIR/EIS. According to the source data, the worst case source of construction noise and vibration would result from the use of a pile driver. A typical pile driver has a vibration level of 104 VdB at a distance of 25 feet. Using the aforementioned falloff equation, the vibration level of 72 VdB would occur at a distance of 291 feet from a typical pile driver. The projected distance between Mercy Hospital and centerline of the Bakersfield South Alternative (the nearest HST alignment to the hospital) is 185 feet. At that distance, the projected vibration level from pile driving would be about 78 VdB, which would represent a potential impact. This is why vibration mitigation, namely the use of drilling-and-casing, was recommended in locations where impact pile driving may be used near noise sensitive land uses. The projected level of vibration from drilling-and-casing would be about 61 VdB at a distance of 185 feet.

The final determination on whether pile driving is necessary for Project construction has not yet been made. However, the analysis included potential use of this method of construction in the EIR/EIS to take a conservative approach and provide the public a worst case estimate of the potential impacts that it could occur in the vicinity of Mercy Hospital. Based on the screening, there is the potential for impacts when a pile driver is used. If there pile driving is necessary during construction, the Final EIS identifies the appropriate mitigation measures to protect against potential vibration impacts.

Comment re Response B0063-22: Once again Mercy Hospital commented that the construction noise measurements should be revised to address potential impacts of the hospital, not just residences. The Authority dodged addressing the potential impacts to the hospital by just changing the wording to say "noise sensitive receivers, instead of residencies." There is quite a difference between a residence and a hospital and that study should be done if this is truly to be a project EIR or Environmental document.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both operation and construction, specifically refer response to Comment B0063-20. The noise analysis did include impacts to both residences and Mercy Hospital, both of which are classified as Category 2 noise sensitive receivers. The construction noise impact criteria in the FRA's noise manual (FRA, 2005, 2012) references thresholds for residential, commercial and industrial land uses, but does not include thresholds for institutional land uses. The residential land use category was found to be the most stringent and was used as basis to assess construction noise impacts for all noise sensitive receivers, including Mercy Hospital.

Comment re Response B0063-23: Mercy Hospital comments that there was no analysis provided of how the recommended mitigation measures will reduce the construction noise to levels that comply with FRA guidelines or the local noise ordinance standards. Once again, the response of the Authority is that mitigation measures will reduce noise to acceptable levels to meet the Federal Transit Administration's construction noise level thresholds. The Federal Transit Administration's noise and vibration construction level thresholds for hospitals were not used as will be discussed in Part II. Studies and appropriate mitigation measures should be circulated to the public before adoption of the project EIR/EIS.

Response: The statement made in this comment that the Federal Transit Administration's noise and vibration construction level threshold for hospitals was not used is incorrect. The Federal Transit Administration's Construction Noise Criteria for a detailed assessment (FTA 2006, page 12-8) was used in the construction noise analysis and is found within Table 3.4-1 on page 3.4-6 of the Final EIR/EIS. The most restrictive standard is 80 dBA Leq. The worst case construction equipment noise level was calculated within Table 3.4-12 at 89 dBA at a distance of 50 feet. The hospital is located 185 feet from the nearest HST centerline (Bakersfield South). At this distance, the worst case construction equipment noise level would be 78 dBA Leq, which is less than the most restrictive standard is 80 dBA Leq. Therefore, the hospital would not be impacted.

The mitigation measures outlined in N&V-MM #1 in Section 3.4.7.1 of the Fresno to Bakersfield EIS lists the type of construction mitigation measures that would be implemented. These mitigation measures would reduce construction noise impacts to acceptable levels to meet the Federal Transit Administration's construction noise level thresholds (see Table 3.4-1 on page 3.4-6 of the Final EIR/EIS). A discussion of the FRA and FTA's significance thresholds for Category 1 sensitive users is provided in a response to Part II, as referenced in Comment re Response B0063-24.

Comment re Response B0063-25: Response to Mercy Hospital's comment that the construction vibration damage to nearby buildings does not identify the hospital building and that the Mercy building should be listed as potentially significant is countered merely by stating that Section 8.5.2 provides construction vibration mitigation measures that will be undertaken near sensitive receivers. This once again is an inadequate response on a project EIR and the building should be listed with appropriate findings of significance and specific mitigation measures for a hospital setting.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both operation and construction, specifically refer response to Comment B0063-20, and refer to Section 3.4.7.1, "Construction Period", N&V-MM#2: Construction vibration mitigation measures, page 3.4-57. As shown in Table 8-9 in the Fresno to Bakersfield Noise and Vibration Technical Report, the distance to construction vibration damage criteria for impact pile drivers (upper range) is 135 feet from the centerline of the HST. Mercy Hospital is currently located approximately 185 feet from the centerline of the HST, and as a result, the hospital building would not be impacted by construction vibration. The impact contour distance for a hospital (Category 1 Land Use) at 65 VdB is 175 feet from the HST centerline as shown in Table 3.4-13 of the Fresno to Bakersfield Final EIR/EIS. Section 3.4 of the Final EIR/EIS identifies a number of construction period mitigations measures that the Authority would implement to reduce the potential vibration impacts of the Project.

Comment re Response B0063-26: Mercy Hospital comments that Section 8.5.1 mentions the potential for annoyance due to vibration from construction activities, but provides no analysis or conclusion. Mercy further noted that the amount of vibrations would be well above 72 V dB and is a significant impact and should be listed as same with appropriate mitigation measures. The Authority merely responded by stating that specific areas where pile driving may be conducted have not been identified, therefore specific mitigation measures for a hospital district had not

been analyzed and would be subject to general mitigation measures for vibration at a later time. This is inappropriate for a project level EIR.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both operation and construction, specifically refer response to Comment B0063-25. If pile driving activities are necessary along the proposed HST alignment near Mercy Hospital, then the mitigation measure N&V-MM#1, as described in Section 3.4.7.1 of the Final EIR/EIS, would be implemented to reduce vibration impacts to a less-than-significant level. This mitigation measure includes using a drilling and casing method when impact pile driving is necessary or using a sonic pile driver rather than using an impact driver.

Comment re Response B0063-32: Once again Mercy Hospital comments that it is concerned about the lack of identification of pile drive areas and its impact upon the hospital. The Authority once again merely responds by saying it hasn't identified where pile drivers will be used, but has mitigation measures that would appropriately protect and will be applied later. The project EIR calls for studies to be done on the effects on the environment and does not allow for lack of studies and future mitigation measures after the environmental document has been approved.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both operation and construction, specifically refer response to Comment B0063-20, and refer to Section 3.4.7.1, "Construction Period", N&V-MM#2: Construction vibration mitigation measures, page 3.4-57. It identifies mitigation measures that would be implemented if pile driving is required during construction to reduce noise and vibration impacts. If necessary, these mitigation measures would be implemented to reduce potential vibration impacts. With vibration mitigation measures in place, the projected vibration level due to construction activities would be several decibels below the impact threshold.

Comment re Response B0063-33: Mercy Hospital again comments that pile drivers have not been included in the studies and that they should be studied so that Mercy can comment upon their use at or near its facility. Delaying this study is inappropriate for a project EIR.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both operation and construction, specifically refer response to Comment B0063-32.

Comment re Response B0063-35: Mercy Hospital comments that mitigation measures for pile driving equipment and other vibrating and noise activities, which limits preconstruction surveys to locations within fifty (50) feet of piling will not protect the hospital. The Authority comments that the building in question (Mercy Hospital) is still outside the realm of potential impact without justifying that statement.

Response: The Final EIR/EIS contains the complete analysis and discussion of the potential noise impacts during both operation and construction, specifically refer response to Comment B0063-25. The impact contour distance for a Hospital (Category 1 land use) at 65 VdB was

found to be 175 feet from the HST centerline as shown in Table 8-9 of the Final Fresno to Bakersfield Final EIS. The Mercy Hospital building is currently located approximately 185 feet from the Bakersfield South HST alignment (the alternative that is the closest to Mercy Hospital). Because of the distance between the HST centerline and the Hospital, there would be no vibration impacts during construction. The preferred alternative is slightly further away than nearest alternative, so as result, there would be no vibration impacts during construction of this alternative either.

Comment re Response B0063-37: Mercy Hospital comments that the mitigation measures appear to address compliance with NEPA but not with CEQA and points out the Table 3.4- 28 states that implementation of mitigation measures will reduce noise and vibration impacts to a level of less than significance with no analysis to support these claims. The Authority responds in its response to comments by stating "analysis cannot be conducted at each potential noise sensitive receiver in order to determine what mitigation measures will be necessary to ensure compliance along the entire portion of every alternative." It should be noted that the Authority has not answered as to the question regarding CEQA and ignored the fact that the only hospital in the entire high-speed rail system is Mercy Hospital and for a project EIR there should be studies and analysis and appropriate specific mitigation measures to protect the health and safety of the community.

Response: The noise and vibration impact analysis and EIS was conducted for all noise sensitive receivers, including Mercy Hospital. The analysis showed that each floor of the hospital would receive at least a 5 dBA reduction in noise from each of the proposed alignments noise barriers. Each of the floors was independently analyzed by taking into account their elevation in relation to the HST, measured ambient, and distance from the HST centerline. These parameters were entered into the HST noise model for each floor and the results showed that the proposed mitigation measures will protect each of the floors at Mercy Hospital, reducing its impact from significant to less-than-significant. Calculations are included in the table provided above for response to Comment re Response B0063-13.

PART II

June 28, 2013 COMMENTS AND LACK OF RESPONSE

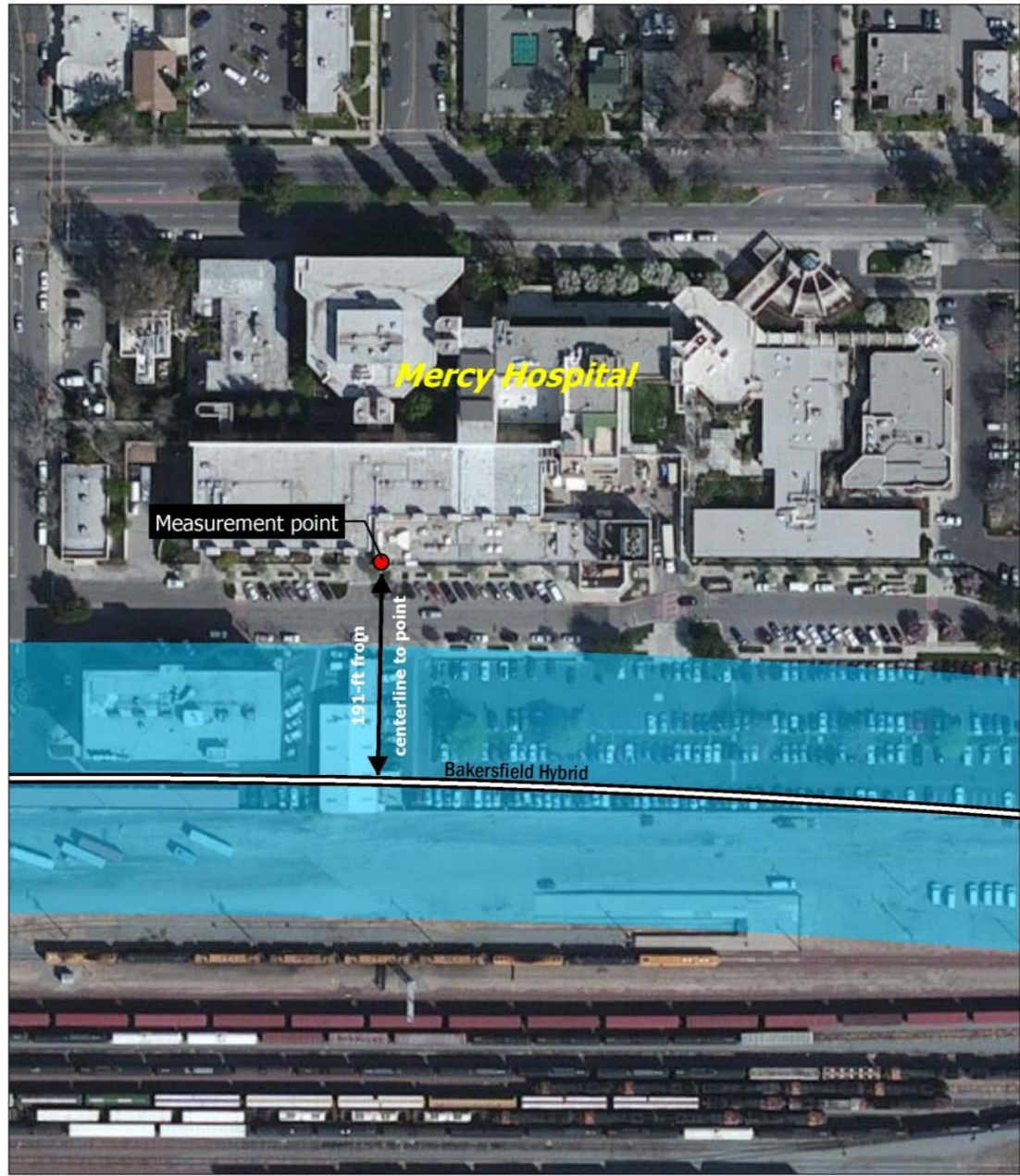
The Authority responded to the June 28, 2013 letter from Mercy Hospital in a meeting with Mercy Hospital. The comment letter was submitted to the Authority outside of the official comment period on the Revised Draft EIR/Supplemental EIS. The Authority reviewed the issues raised in the letter and found that the analysis in the June 28 letter made some inaccurate factual assumptions. The Authority met with Mercy Hospital on August 22, 2013 to discuss the letter. As explained below, a Detailed Vibration Analysis (DVA) is not warranted. The following information was provided to Mercy Hospital during the August 2013 meeting.

Location of Alignments:

According to a figure provided with Mercy Hospital's June 28, 2013 letter, the location of the centerline of an alignment was approximately 118 feet from the nearest building face of Mercy Hospital. The alignment was not labeled in the figure provided by Mercy Hospital. However, none of the alignments evaluated in the Final EIR/EIS are located 118 feet from the centerline of track to Mercy Hospital. The location of the nearest project centerline (B2 – Bakersfield South) to the nearest building face of Mercy Hospital is 185 feet. Figure 1, "Distance from Bakersfield Hybrid Centerline to Mercy Hospital" shows that the distance of the Preferred Alignment is 191 feet from the nearest building face of Mercy Hospital.

Vibration Category 1 – High Sensitivity Building Classification:

The vibration limits for Vibration Category 1 are based on acceptable vibration for moderately vibration-sensitive equipment, such as optical microscopes and electron microscopes with vibration isolation systems. Defining limits for equipment that is even more sensitive requires a detailed review of the specific equipment involved, and Mercy Hospital has not provided a list identifying equipment that is especially sensitive to vibration in excess of the vibration limits for Category 1.



Imagery Source: ESRI
Source: URS/HMM/Arup JV, 2014

June 3, 2014

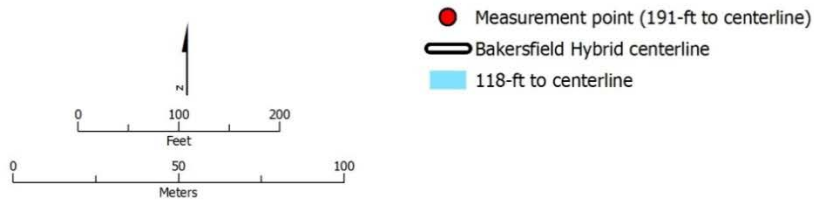


Figure 1
Distance from Bakersfield Hybrid Centerline to Mercy Hospital

Note: The Bakersfield Hybrid was identified in the Final EIS as the Preferred Alternative. Bakersfield South Alignment is 185 feet from Mercy Hospital.

Potential Operational Vibration Impacts:

A general assessment of the potential operational vibration impacts to Mercy Hospital had been conducted and the results are presented below. Category 1 receivers, of which Mercy Hospital is one, include high sensitivity areas where vibration would interfere with operations within the building. These areas include vibration-sensitive research and manufacturing locations, hospitals with vibration-sensitive equipment and university research operations. The FRA/FTA impact level for Category 1 receivers is 65 VdB.

The following table indicates the average and maximum predicted exterior and interior vibration levels at MHDC based on the Hybrid (B3) Alignment at Station 7190+00 to 7200+00 at speeds of 220 mph and 150 mph.

Vibration Level Distance	Worst Case	Average	Notes
191 feet, At Grade – 220 mph	70.3 VdB	65.4 VdB	No portion of the proposed HST is at-grade near Mercy Hospital. This information relevant to an At Grade alignment was included in the analysis sequence because the analytical process begins At Grade and adjustments are made to these base levels. In this case, a 10 VdB reduction is applied to aerial segments.
191 feet , Aerial – 220 mph	60.3 VdB	55.4 VdB	Aerial level is -10 VdB relative to At-grade. FRA 2005, 2012, Table 8-2
Inside hospital – 220 mph	50.3 VdB	45.4 VdB	Coupling to a large masonry building on piles is -10 VdB. FRA 2005, 2012, Table 8-2

Vibration Level Distance	Worst Case	Average	Notes
191 feet – Aerial – 150 mph	57.0 VdB	52.1 VdB	Aerial level is -10 dB relative to At-grade. FRA 2005, 2012, Table 8-2
Inside hospital –150 mph	47.0 VdB	42.1 VdB	Coupling to a large masonry building on piles is -10 dB. FRA 2005, 2012, Table 8-2

As shown in the tables, the worst case predicted vibration level at the exterior of Mercy Hospital for a high-speed train operating at 220 mph is 60.3 VdB. This level is below the FRA/FTA impact level of 65 VdB for Category 1 receivers. However, the predicted average vibration level is likely to be 55.4 VdB. As noted in responses to the comments in Part I, vibration from pile driving during construction would be mitigated to acceptable levels in locations where sensitive receptors would be exposed to levels exceeding the FRA/FTA impact level of 65 VdB through the implementation of feasible and proven construction techniques such as using a drilling and casing method when impact pile driving is necessary or using a sonic pile driver rather than using an impact driver.

The Authority has met with Dignity Health and Mercy Hospital to address its concerns. There is no evidence that the construction and operation of a HST as evaluated in the Final EIR/EIS would result in a significant vibration impact pursuant to FRA/FTA thresholds. Dignity Health-Mercy Hospital has not provided the Authority with a list of special equipment or practices that require more specific detailed analysis of. The Authority is committed to continue to meet with Dignity Health and address its concerns. If Dignity Health is conducting future operations using equipment that is more sensitive to vibrations than the established standards for Category 1 sensitive receptors, then the Authority would work with Dignity Health to address that situation. As it stands today, there is no evidence that the analysis in the Final EIR/EIS is inadequate and a DVA at this time would be inappropriate because a list of equipment that is more sensitive to vibrations than the established standards for Category 1 is lacking.

PART III

VALLEY FEVER

In light of specific Valley Fever concerns raised in public testimony, staff recommended that the Authority add specific requirements to the Construction Safety and Health Plans (CSHPs) regarding preventive measures to avoid Valley Fever exposure (Ch. 3.11, Design Features, 3.11.6). The recommendation is that the following be included in the existing design feature for Ch. 3.11, “Safety and Security.”

The Construction Safety and Health Plan shall include the following:

1. Train workers and supervisors on how to recognize symptoms of illness, and ways to minimize exposure, such as washing hands at the end of shifts.
2. Provide washing facilities nearby for washing at the end of shifts.
3. Provide vehicles with enclosed, air conditioned cabs and make sure workers keep the windows closed. Equip heavy equipment cabs with high efficiency particulate air (HEPA) filters.
4. Make NIOSH approved respiratory protection with particulate filters as recommended by the California Department of Public Health (CDPH) available to workers who request them.

This staff recommendation was accepted by the Authority’s Board of Directors on May 7, 2014. The Authority and FRA continue to coordinate directly with CDPH to ensure that the risk prevention measures represent the most current thinking for construction projects in California. As of now, the Authority has met with CDPH representatives on May 20 and 30, 2014. The CDPH suggested that the Authority should contact the San Joaquin Air Pollution Control District to seek further guidance for reducing the risk of Valley Fever exposure. The Authority spoke with David Lighthall, a Health Science Advisor with the San Joaquin Valley Air Pollution Control District (SJVAPCD), on June 2nd. Mr. Lighthall indicated that the SJVAPCD’s most up-to-date recommendation for addressing Valley Fever risk is compliance with Regulation VIII, “Fugitive PM₁₀ Prohibitions” of their current Rules and Regulations, which would control dust of Particulate Matter 10 micrometers in size. The reason is because Valley Fever is caused by human inhalation of fungus in airborne dust and compliance with Rule VIII contains dust to the construction site. The Project Design Features that the Authority and FRA has committed to in the Final EIS/EIS include fugitive dust measures that ensure compliance with Regulation VIII.

The FRA received a comment letter from the Environmental Protection Agency (EPA) on May 27, 2014. Based on the discussions that the Authority and FRA had with CDPH, some minor revisions to the EPA’s recommendations have been made. The CDPH reviewed the revised recommendations and agreed that they represent a prudent approach to supplementing the four measures listed above. The FRA indicates that it intends to require the following measures be implemented in addition the four above:

- Prior to construction, provide information on causes, preventative measures, symptoms, and treatments for Valley Fever to individuals who could potentially be exposed through construction activities (i.e., construction workers, monitors, managers, and support personnel).

- Continue outreach and coordination with the California Department of Public Health. In addition, reach out to county departments of public health to ensure that the above referenced information concerning Valley Fever is readily available to nearby residents, schools, and businesses and to obtain area information about Valley Fever outbreaks and hotspots.
- Provide a qualified person dedicated to overseeing implementation of Valley Fever prevention measures to encourage a culture of safety of the contractors and subcontractors. The individual should have the authority to manage the implementation of Valley Fever prevention measures adaptively and to effect change in coordination with the county Public Health Officer. The individual shall track reported cases of Valley Fever, if any, likely caused by or connected to project construction. This medical information will be maintained following applicable and appropriate confidentiality protections.