4.D Noise

The comments and corresponding responses in this section cover topics in draft SEIR section 3.C, Noise. These include topics related to:

- Comment NO-1: Noise Baseline
- Comment NO-2: Methodology
- Comment NO-3: Construction Noise Impacts
- Comment NO-4: Construction Vibration
- Comment NO-5: Operational Noise Impacts
- Comment NO-6: Noise Mitigation Measure
- Comment NO-7: Cumulative Noise

Comment NO-1: Noise Baseline

This response addresses comments from the commenter listed below; each comment on this topic is quoted in full below this list:

I-HEGGIE1-2
I-HEGGIE1-3
I-HEGGIE2-4
I-HEGGIE2-7

"My focus today is going to be on noise.

Noise effects on residents and childcare centers in adjacent Sunnyside have been ignored, although they are located within the 900-foot zone of the project noise considerations. Two childcare centers and preschools were identified in the EIR, in this east side of the project.

The sensitive receptors are closer to parts of the development than the studied 24-hour LT.3 location in Westwood Park. And Sunnyside sites lie in an area that is typically downwind of the construction site.

Like many childcare or nursery schools in the area, the Staples and Frida Kahlo Way -- I've forgotten the name of the mini location. It's for children. Serves as a residence, as well as childcare center and preschool center. It needs a 24-hour noise study."

*(Jennifer Heggie, CPC Hearing, September 12, 2019 [*I-HEGGIE1-2*])*

"Additionally, we suggest noise testing at the corner of Judson and Frida Kahlo Way, formerly Phelan Avenue, where a replacement City College daycare center is planned for the future."

*(Jennifer Heggie, CPC Hearing, September 12, 2019 [*I-HEGGIE1-3*])*

"1. Noise effects on residences and child care centers in adjacent Sunnyside have not been tested although they are located within the 900 foot zone of project noise consideration. Two childcare centers and preschools were identified in the EIR in this area Northeast of the project. The sensitive receptors in this area are closer to some parts of the development than the studied 24-hour LT-3 location in Westwood Park, and the Northeast sites lie in an area that is typically downwind of the construction site. Like many childcare or nursery schools in the area, the Staples and Frida Kahlo Way Mighty Bambini location at the border of Sunnyside and Westwood Park appears to be a residence as well as childcare and preschool center. Like other childcare centers in surrounding residential neighborhoods, it deserves a 24-hour noise study. Additionally, noise testing will be needed at the corner of Judson and Frida Kahlo Way (formerly Phelan Avenue) where a replacement City College childcare center is planned within the construction timeframe, according to Dr. James Sohn of the City College of San Francisco."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-4*])*

"5. Additional noise studies need to be made to create a noise baseline at all noise monitoring sites. Long term (24-hr) sound assessments were made on the Western side of the project. Only short-term sound assessments were made on the East side at the City College MUB and Riordan High School, which is also a boarding school, and that testing was for a short period, less than half an hour before 9:30am. Not only will 24-hour noise monitoring enable an apples to apples comparison with the other 24-hour noise tests, 24-hour monitoring should be included to take into account the wide variation in sound levels as the City College lot fills, empties, and refills at different times of the day."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-7*])*

Response NO-1: Noise Baseline

The comments express concern that the noise analysis of the draft SEIR did not specifically address the potential noise impacts at childcare facility receptors to the northeast of the project site and that additional 24-hour measurements should be taken at all noise monitoring sites.

The construction noise impacts of the proposed project are analyzed on draft SEIR pp. 3.C-23 through 3.C-31. Table 3.C-8 on draft SEIR p. 3.C-27 presents the predicted construction-related noise levels at the nearest sensitive-receptor locations to the project site where the maximum combined noise levels from construction equipment would occur.

As described on draft SEIR p. 3.C-25, the closest sensitive receptors to the project site are: residences along Plymouth Avenue and San Ramon Way approximately 50 feet from the west side of the proposed buildings; Archbishop Riordan High School approximately 80 feet from the eastern property line; and the 1100–1150 Ocean Avenue residences approximately 50 feet from the Lee

Avenue extension area and the Phase 0 demolition activity area. The predicted construction-related noise levels at sensitive receptors are evaluated to determine whether the project would result in: (1) an increase in sustained noise levels that are 10 dBA above the ambient background noise levels over a substantial period of time, or (2) noise levels above the Federal Transit Administration's limit of 90 dBA. The analysis and disclosure of maximum potential project-specific increases over existing ambient environments (i.e., a "worst-case" assessment) follows standard methodology for the evaluation of noise impacts.

Mighty Bambinis Childcare and Preschool and the future City College daycare planned near Judson Avenue and Frida Kahlo Way were not included in this impact table because they are substantially more distant than the receptors shown in Table 3.C-8 of the draft SEIR; thus, impacts would be less than those used to identify noise impacts.

In response to these comments, **Table RTC-1, Estimated Daytime Construction-Related Noise Levels at Offsite Receptor**, presents the resultant construction noise levels at Mighty Bambinis Childcare receptor, which is approximately 560 feet from the project boundary. As shown in Table RTC-1, construction-related noise levels at the Mighty Bambinis Childcare facility would be less than the FTA's limit of the most stringent daytime standard of 90 dBA, which applies to residential uses. The resultant noise level increase at this receptor would also be less than the "Ambient + 10 dBA" standard applied for this analysis. Consequently, construction noise impacts for the existing northeasterly childcare receptor would be less than significant. Nevertheless, **Mitigation Measure M-NO-1: Construction Noise Control Measures**, identified to address significant impacts to other, closer receptors, would further reduce the construction noise impact at this receptor and other receptors more distant from construction activities.

TABLE RTC-1
ESTIMATED DAYTIME CONSTRUCTION-RELATED NOISE LEVELS AT OFFSITE RECEPTOR

Construction Phase and Noisiest Combined Construction Activities	Hourly Leq in dBA at 50 Feet[a]	Minimum Distance between Receptor and Closest Equipment (feet)	Project Noise Level (Leq) Adjusted for Distance[b]	Daytime FTA Standard at Residential Uses (dBA)	Does Noise Level Exceed FTA Standard?	Ambient (62 dBA) + 10 dBA Standard[c] at Closest Receptor	Does Noise Level Exceed Ambient + 10 dBA Standard?
Existing Noise Receptor: Mighty Bambinis Childcare at Phelan and Staples avenues							
Phase 0 – Surface Preparation and Demolition	85	560	65	90	No	72	No
Phase 1 Building Construction	81	560	60	90	No	72	No
Phase 2 Building Construction	81	560	60	90	No	72	No

SOURCE: ESA, 2019.

NOTES:

dBA = A-weighted decibel; FTA = Federal Transit Administration; noise levels in **bold** exceed the indicated standard.

[a] As calculated with the RCNM model with no attenuation for intervening berms or buildings.

[b] Combined hourly noise levels were attenuated 6 dB for every doubling of distance from the source.

[c] People often perceive 10 dBA as a doubling of loudness. The daytime ambient noise levels of 62 dBA were estimated using roadway noise modeling data for Judson Avenue between Frida Kahlo Way and Gennessee Street.

Table RTC-2, Estimated Daytime Construction-Related Noise Levels at Cumulative Offsite Receptor, presents the resultant construction noise levels the future City College daycare receptor as an extension of the cumulative construction noise analysis on draft SEIR pp. 3.C-38 and 3.C-39. This future receptor would be located approximately 750 feet from the project boundary. As shown in Table RTC-2, construction-related noise levels at the future City College daycare receptor would be less than the FTA's limit of the most stringent daytime standard of 90 dBA, which applies to residential uses. The resultant noise level increase at this receptor would also be less than the "Ambient + 10 dBA" standard applied for this analysis. Consequently, construction noise impacts for the future northeasterly childcare receptors would be less than significant.

TABLE RTC-2
ESTIMATED DAYTIME CONSTRUCTION-RELATED NOISE LEVELS AT CUMULATIVE OFFSITE RECEPTOR

Construction Phase and Noisiest Combined Construction Activities	Hourly Leq in dBA at 50 Feet[a]	Minimum Distance between Receptor and Closest Equipment (feet)	Project Noise Level (Leq) Adjusted for Distance[b]	Daytime FTA Standard at Residential Uses (dBA)	Does Noise Level Exceed FTA Standard?	Ambient (62 dBA) + 10 dBa Standard[c] at Closest Receptor	Does Noise Level Exceed Ambient + 10 dBba Standard?
Future City College daycare receptor at Judson Avenue and Frida Kahlo Way							
Phase 0 – Surface Preparation and Demolition	85	750	63	90	No	72	No
Phase 1 Building Construction	81	750	58	90	No	72	No
Phase 2 Building Construction	81	750	58	90	No	72	No

SOURCE: ESA, 2019.

NOTES:

dBA = A-weighted decibel; FTA = Federal Transit Administration; noise levels in **bold** exceed the indicated standard.

[a] As calculated with the RCNM model with no attenuation for intervening berms or buildings.

[b] Combined hourly noise levels were attenuated 6 dB for every doubling of distance from the source.

[c] People often perceive 10 dBA as a doubling of loudness. The daytime ambient noise levels of 62 dBA were estimated using roadway noise modeling data for Judson Avenue.

Traffic noise impacts to these northeasterly childcare uses are addressed on draft SEIR pp. 3.C-36 through 3.C-38. Specifically, Table 3.C-11 on draft SEIR p. 3.C-37 presents the roadside noise level increases on Judson Avenue resulting from the proposed project operations. As can be seen from this table, noise levels at receptors along Judson Avenue would increase by 0.4 dBA or less, which would not be a perceptible increase and would be a less-than-significant operational noise impact. Traffic noise impacts to the future childcare use may be also be assessed using this same table which shows the increases along Frida Kahlo Way to also be less than significant (0.6 dBA or less).

The commenter also suggests that long-term (24-hour) noise monitoring should be conducted at receptor locations on the east side of the project site, as was done for the receptors on the west side of the project site and included in the draft SEIR Noise setting discussion.

No long-term noise monitoring is required for off-site locations~~,~~ east of the project site under CEQA. The long-term noise monitoring cited in the draft SEIR is not used for the CEQA noise analysis but instead provides planners with information to understand the compatibility of the project's proposed land use with the current long-term (DNL) noise ~~metrics~~ environment set forth in~~of~~ the Environmental Protection Element of the San Francisco General Plan, which is a non-CEQA noise assessment.

Commented [PJ(1]: Sponsor edit: Is there a better word than. "metric" ?

As stated on draft SEIR p. 3.C-23, construction activity would generally occur during daytime hours. Nighttime construction noise is not expected to occur frequently or regularly. As stated on draft SEIR p. 3.C-23, while certain construction activities such as large concrete pours, may require earlier start or later finish times to accommodate such time-specific activities, construction activities would be subject to review, permitting, and approval by the San Francisco Department of Building Inspection.

The text on draft SEIR p. 3.C-23 is revised as follows to clarify nighttime noise~~-~~-generating activity (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> Construction activities would generally occur between the hours of 7 a.m. and 8 p.m., up to seven days a week. The project sponsor does not anticipate frequent or regular nighttime noise~~-~~-generating construction activity ~~and would not occur during nighttime hours~~. Consequently, construction activities would be consistent with San Francisco Police Code section 2908.
>
> **Construction-Related Noise Sources**
>
> Project implementation would result in operation of heavy equipment on the project site for the demolition of the west side berm, and north and east embankments, construction of new structures and associated infrastructure, and open space improvements. Construction activities would occur intermittently on the project site over the six-year construction duration and could expose nearby existing and future sensitive receptors to temporary increases in noise levels substantially in excess of ambient levels. The project sponsor does not anticipate frequent or regular nighttime noise-generating construction activity. ~~Construction activity is only proposed to occur during daytime hours and nighttime construction noise impacts would not occur and are not assessed herein. While c~~Certain construction activities such as large concrete pours, may require earlier start or later finish times to accommodate such time-specific activities, and could include one concrete pour per building, which could occur a total of 12 times throughout the project construction period. Such construction activities ~~that extend beyond normal hours have not been specifically identified by the applicant and~~ would be subject to review, permitting, and approval by the San Francisco Department of Building Inspection.

The above changes and additional analysis do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts.

Comment NO-2: Methodology

This response addresses the comment from the commenter listed below; the comment on this topic is quoted in full below:

I-HEGGIE2-2

"In addition, some of the testing reports appear to provide inconsistent testing. This makes it difficult for non-professionals to compare apples to apples, track the meaning of the data and encourages misinterpreting possibly impactful conclusions. For example, adding a note below the Balboa Reservoir truck Roadway Noise Analysis on Page 1of 2, in Appendix D2, would provide clarification of why the numbers of road segments tested differ depending on whether the test is for the existing environment, the existing plus developer's project, the existing plus additional housing scenario, or the cumulative plus developer's project."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-2*])*

Response NO-2: Methodology

The commenter requests clarification regarding the difference in the number of roadway segments analyzed in the traffic modeling spreadsheets between the various scenarios in Appendix D2 of the draft SEIR.

Page 1 of Appendix D2 of the draft SEIR contains the inputs and results for the roadway noise analysis. Operational traffic noise impacts are addressed on draft SEIR pp. 3.C-36 through 3.C-38 while the cumulative traffic noise impacts are addressed on draft SEIR pp. 3.C-40 through 3.C-41. The differences in the number of roadway segments analyzed depends on several factors, including whether sensitive receptors are present along a given roadway and whether the extent of traffic distribution warrants an analysis of a roadway segment. Draft SEIR p. 3.C-36 states that "[n]oise modeling was completed to estimate existing (baseline) and future (with the proposed project) traffic noise levels along seven street segments that have sensitive receptors in the project area based on traffic volumes presented in SEIR Section 3.B, Transportation and Circulation." The seven road segments are shown on Table 3.C-11 on draft SEIR p. 3.C-37.

Initially, two segments of Ocean Avenue extending in either direction from the access point were included in the analysis. These two roadway segments were included in an initial draft of the analysis but were removed because existing roadway noise rendered the project contribution negligible. The traffic model spreadsheet inadvertently retained rows for the two Ocean Avenue segments in the appendix even though the analysis for this roadway were not included in the draft SEIR. Pages 1 and 2 of draft SEIR Appendix D2 have been revised to reflect the deletion of these roadway segments from the analysis.

Therefore, cumulative line items have been deleted from Appendix D2 as shown below and are not cited in the draft SEIR. The appendices serve as supporting information to the draft SEIR and the relevant data and analysis are presented in the draft SEIR; therefore, additional clarification

within the appendices is not necessary. The clarifications to the appendices have been shown below (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline). These changes do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts.

Pages 1 and 2 of SEIR Appendix D2 are revised as follows:

Existing

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto	<kh	MT	k/h	HT	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calvano																							
Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25	40	25	40	25	40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	914	97	886.58	2	18.28	1	9.14	25	40	25	40	25	40	59.6	54.4	59.0	63.0	40	58.7	9.4	30.8
Lee	Ocean	Site	167	97	161.99	2	3.34	1	1.67	25	40	25	40	25	40	52.2	47.0	51.6	55.6	40	51.3	1.7	5.6
Lee	Ocean	Holoway	166	97	161.02	2	3.32	1	1.66	25	40	25	40	25	40	52.2	47.0	51.6	55.6	40	51.3	1.7	5.6
Plymouth	Ocean	S.Wood	177	97	171.89	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	323	97	313.31	2	6.46	1	3.23	25	40	25	40	25	40	55.1	49.9	54.5	58.4	40	54.2	3.3	10.9
Judson	F. Kahlo	Genesee	670	97	649.9	2	13.4	1	6.7	25	40	25	40	25	40	58.2	53.0	57.7	61.6	40	57.4	6.6	22.6
~~Ocean~~	~~Plymouth~~	~~Monroe~~	~~1599~~	~~97~~	~~1550.3~~	~~2~~	~~31.9~~	~~1~~	~~15.9~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~59.8~~	~~57.3~~	~~61.7~~	~~65.6~~			~~17.6~~	~~60.5~~
~~Ocean~~	~~F. Kahlo~~	~~I-280~~	~~1679~~	~~97~~	~~1628.7~~	~~2~~	~~33.4~~	~~1~~	~~16.7~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~59.7~~	~~57.5~~	~~62.1~~	~~66.1~~			~~19.0~~	~~62.5~~

Assumptions: PM peak hour traffic data from Kittleson

Existing + Developer's Project

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto	<kh	MT	k/h	HT	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calvano																							
Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25	40	25	40	25	40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	997	97	967.09	2	19.94	1	9.97	25	40	25	40	25	40	60.0	54.8	59.4	63.3	40	59.1	10.2	33.6
Lee	Ocean	Site	387	97	375.39	2	7.74	1	3.87	25	40	25	40	25	40	55.8	50.6	55.3	59.2	40	55.0	4.0	13.0
Lee	Ocean	Holoway	209	97	202.73	2	4.18	1	2.09	25	40	25	40	25	40	53.2	48.0	52.6	56.6	40	52.3	2.1	7.0
Plymouth	Ocean	S.Wood	177	97	171.89	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	368	97	356.96	2	7.36	1	3.68	25	40	25	40	25	40	55.6	50.4	55.1	59.0	40	54.7	3.8	12.4
Judson	F. Kahlo	Genesee	700	97	679	2	14	1	7	25	40	25	40	25	40	58.4	53.2	57.9	61.8	40	57.5	7.2	23.6

Assumptions: PM peak hour traffic data from Kittleson

Existing + Additional Housing Scenario

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto	<kh	MT	k/h	HT	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calvano																							
Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25	40	25	40	25	40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	1063	97	1031.1	2	21.26	1	10.63	25	40	25	40	25	40	60.2	55.0	59.7	63.6	40	59.4	10.9	35.6
Lee	Ocean	Site	434	97	420.98	2	8.68	1	4.34	25	40	25	40	25	40	56.3	51.1	55.8	59.7	40	55.5	4.5	14.8
Lee	Ocean	Holoway	226	97	219.22	2	4.52	1	2.26	25	40	25	40	25	40	53.5	48.3	52.9	56.9	40	52.6	2.3	7.6
Plymouth	Ocean	S.Wood	177	97	171.89	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	479	97	464.63	2	9.58	1	4.79	25	40	25	40	25	40	56.8	51.6	56.2	60.2	40	55.9	4.9	16.1
Judson	F. Kahlo	Genesee	735	97	711.01	2	14.68	1	7.33	25	40	25	40	25	40	58.6	53.4	58.1	62.0	40	57.7	7.5	24.7

Assumptions: PM peak hour traffic data from Kittleson

~~**Cumulative + Developer's Project**~~

~~ROAD SEGMENT~~			~~TOTAL # VEHICLES~~	~~VEHICLE TYPE % Auto~~		~~MT~~		~~HT~~		~~VEHICLE SPEED Auto~~	~~<kh~~	~~MT~~	~~k/h~~	~~HT~~	~~k/h~~	~~NOISE LEVEL (dBA) Auto~~	~~MT~~	~~HT~~	~~CALCULATED NOISE LEVEL 15 meters from~~	~~Receptor Dist. from Roadway~~	~~Adjusted Noise Level~~	~~Distance from Roadway to 65 dBA~~	~~Distance from Roadway to 65 dBA~~
~~Calvano~~																							
~~Peak~~																							
	~~from:~~	~~to:~~		~~%~~	~~Auto~~	~~%~~	~~MT~~	~~%~~	~~HT~~										~~roadway center)~~	~~Center (m.)~~	~~(dBA)~~	~~(m.)~~	~~(ft)~~
~~F. Kahlo~~	~~Ocean~~	~~Cloud~~	~~1644~~	~~97~~	~~1594.5~~	~~2~~	~~32.88~~	~~1~~	~~16.44~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~60.9~~	~~55.7~~	~~61.3~~	~~65.5~~	~~40~~	~~59.9~~	~~16.6~~	~~55.6~~
~~F. Kahlo~~	~~C. Coll N.~~	~~Judson~~	~~1768~~	~~97~~	~~1715.0~~	~~2~~	~~35.41~~	~~1~~	~~17.70~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~62.1~~	~~57.0~~	~~61.8~~	~~65.9~~	~~40~~	~~59.6~~	~~19.6~~	~~65.4~~
~~Lee~~	~~Ocean~~	~~Site~~	~~969~~	~~97~~	~~940.11~~	~~2~~	~~19.44~~	~~1~~	~~9.722~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~55.5~~	~~50.3~~	~~55.0~~	~~58.9~~	~~40~~	~~54.9~~	~~9.7~~	~~12.1~~
~~Lee~~	~~Ocean~~	~~Holoway~~	~~439~~	~~97~~	~~425.56~~	~~2~~	~~8.791~~	~~1~~	~~4.395~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~51.9~~	~~46.8~~	~~50.6~~	~~54.5~~	~~40~~	~~50.3~~	~~1.4~~	~~4.4~~
~~Plymouth~~	~~Ocean~~	~~S.Wood~~	~~499~~	~~97~~	~~483.89~~	~~2~~	~~9.981~~	~~1~~	~~4.991~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~51.9~~	~~46.8~~	~~51.0~~	~~55.0~~	~~40~~	~~50.9~~	~~1.6~~	~~5.1~~
~~City Coll N~~	~~F. Kahlo~~	~~Site~~	~~539~~	~~97~~	~~522.83~~	~~2~~	~~10.78~~	~~1~~	~~5.392~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~57.0~~	~~51.9~~	~~56.5~~	~~60.4~~	~~40~~	~~56.2~~	~~5.2~~	~~17.1~~
~~Judson~~	~~F. Kahlo~~	~~Genesee~~	~~840~~	~~97~~	~~814.80~~	~~2~~	~~16.96~~	~~1~~	~~8.480~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~59.4~~	~~54.2~~	~~58.9~~	~~62.8~~	~~40~~	~~58.5~~	~~8.6~~	~~28.0~~
~~Ocean~~	~~Plymouth~~	~~Monroe~~	~~1644~~	~~97~~	~~1595.3~~	~~2~~	~~32.88~~	~~1~~	~~16.44~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~59.9~~	~~57.3~~	~~61.8~~	~~65.8~~	~~40~~	~~59.4~~	~~16.6~~	~~55.0~~
~~Ocean~~	~~F. Kahlo~~	~~I-280~~	~~1679~~	~~97~~	~~1628.7~~	~~2~~	~~33.58~~	~~1~~	~~16.79~~	~~25~~	~~40~~	~~25~~	~~40~~	~~25~~	~~40~~	~~59.7~~	~~57.5~~	~~62.1~~	~~66.1~~	~~40~~	~~59.4~~	~~16.9~~	~~55.5~~

~~Assumptions: PM peak hour traffic data from Kittleson~~

Page 1 of 2

~~Cumulative + Additional Housing Scenario~~

ROAD SEGMENT	from:	to:	TOTAL # VEHICLES	%	Auto	%	MT	%	HT	Auto k/h	MT k/h	HT k/h	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
~~Calvano~~																					
~~Peak~~																					
~~F. Kahlo~~	~~Ocean~~	~~Cloud~~	~~1234~~	~~92~~	~~1135.6~~	~~2~~	~~24.68~~	~~1~~	~~12.34~~	~~25~~	~~40~~	~~25~~	~~40~~	~~58.1~~	~~52.5~~	~~61.9~~	~~65.0~~	~~40~~	~~61.5~~	~~70.0~~	~~229.6~~
~~F. Kahlo~~	~~C. Coll N.~~	~~Judson~~	~~1795~~	~~97~~	~~1740.9~~	~~2~~	~~35.95~~	~~1~~	~~17.95~~	~~25~~	~~40~~	~~25~~	~~40~~	~~55.2~~	~~47.9~~	~~61.9~~	~~65.5~~	~~40~~	~~61.0~~	~~40.4~~	~~132.6~~
~~Ocean~~	~~Brown~~	~~Site~~	~~495~~	~~97~~	~~479.49~~	~~2~~	~~9.94~~	~~1~~	~~4.95~~	~~25~~	~~40~~	~~25~~	~~40~~	~~59.5~~	~~54.0~~	~~65.9~~	~~65.9~~	~~40~~	~~55.4~~	~~6.8~~	~~22.3~~
~~Ocean~~	~~Ocean~~	~~Holloway~~	~~245~~	~~92~~	~~225.1~~	~~2~~	~~4.90~~	~~1~~	~~2.45~~	~~25~~	~~40~~	~~25~~	~~40~~	~~51.7~~	~~45.5~~	~~55.9~~	~~55.9~~	~~40~~	~~52.9~~	~~1.6~~	~~5.2~~
~~Plymouth~~	~~Ocean~~	~~S.Wood~~	~~452~~	~~97~~	~~438.00~~	~~2~~	~~9.04~~	~~1~~	~~4.52~~	~~25~~	~~40~~	~~25~~	~~40~~	~~54.8~~	~~49.5~~	~~61.9~~	~~60.0~~	~~40~~	~~56.0~~	~~1.6~~	~~5.2~~
~~City Coll N.~~	~~F. Kahlo~~	~~Site~~	~~549~~	~~92~~	~~504.91~~	~~2~~	~~10.98~~	~~7~~	~~38.43~~	~~25~~	~~40~~	~~25~~	~~40~~	~~57.4~~	~~52.1~~	~~63.9~~	~~59.7~~	~~40~~	~~55.5~~	~~6.6~~	~~22.1~~
~~Judson~~	~~F. Kahlo~~	~~Brighton~~	~~899~~	~~97~~	~~871.99~~	~~2~~	~~17.98~~	~~1~~	~~8.99~~	~~25~~	~~40~~	~~25~~	~~40~~	~~55.5~~	~~54.0~~	~~59.9~~	~~59.9~~	~~40~~	~~58.0~~	~~9.4~~	~~30.9~~
~~Ocean~~	~~Plymouth~~	~~Miramar~~	~~1345~~	~~97~~	~~1305.4~~	~~2~~	~~26.90~~	~~1~~	~~13.45~~	~~25~~	~~40~~	~~25~~	~~40~~	~~61.3~~	~~55.1~~	~~69.7~~	~~64.5~~	~~40~~	~~60.4~~	~~13.5~~	~~45.3~~
~~Ocean~~	~~F. Kahlo~~	~~I-280~~	~~1668~~	~~97~~	~~1617.7~~	~~2~~	~~33.36~~	~~1~~	~~16.68~~	~~25~~	~~40~~	~~25~~	~~40~~	~~62.9~~	~~57.6~~	~~62.9~~	~~66.1~~	~~40~~	~~61.0~~	~~16.8~~	~~54.1~~

~~Assumptions: PM peak hour traffic data from Kittleson~~

Existing + Construction Trucks

ROAD SEGMENT	from:	to:	TOTAL # VEHICLES	%	Auto	%	MT	%	HT	Auto k/h	MT k/h	HT k/h	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
Calvano																					
Peak																					
F. Kahlo	Ocean	Cloud	1201	96	1153	1	12.01	3	36.03	25	40	25	40	25	40	60.7	52.5	65.0	66.5	40	62.3	21.3	70.0
City Coll N	F. Kahlo	Site	345	92	317.4	1	3.45	7	24.15	25	40	25	40	25	40	55.1	47.1	63.2	63.9	40	59.7	11.8	38.8
Trucks Alone			22	0.1	0.022	0	0.022	100	21.96	25	40	25	40	25	40	13.5	25.2	62.8	62.8	30	59.8	9.1	29.8

Assumptions: PM peak hour traffic data from Kittleson

Existing

ROAD SEGMENT	from:	to:	TOTAL # VEHICLES	%	Auto	%	MT	%	HT	Auto k/h	MT k/h	HT k/h	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
Calvano																					
Peak																					
Plymouth	Ocean	S.Wood	177	97	171.69	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
Plymouth	San Rama	Wild wd																			

Assumptions: PM p

Existing + Developer's Project Alternative C

ROAD SEGMENT	from:	to:	TOTAL # VEHICLES	%	Auto	%	MT	%	HT	Auto k/h	MT k/h	HT k/h	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
Calvano																					
Peak																					
Plymouth	San Rama	Wild wd	222	97	215.34	2	4.44	1	2.22	25	40	25	40	25	40	53.4	48.2	52.9	56.8	40	52.6	2.3	7.5

Assumptions: PM peak hour traffic data from Kittleson

Existing + Additional Housing Alternative C

ROAD SEGMENT	from:	to:	TOTAL # VEHICLES	%	Auto	%	MT	%	HT	Auto k/h	MT k/h	HT k/h	k/h	NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
Calvano																					
Peak																					
Plymouth	San Rama	Wild wd	236	97	228.92	2	4.72	1	2.36	25	40	25	40	25	40	53.7	48.5	53.1	57.1	40	52.8	2.4	7.9

Assumptions: PM peak hour traffic data from Kittleson

Page 2 of 2

Comment NO-3: Construction Noise Impacts

This response addresses comments from the commenter listed below; each comment on this topic is quoted in full below this list:

O-ARHS-1	I-HEGGIE2-6	I-HEGGIE2-14
O-ARHS-2	I-HEGGIE2-8	I-HEGGIE2-15
I-BIERINGER1-3	I-HEGGIE2-12	I-HEGGIE2-17
I-HEGGIE2-4	I-HEGGIE2-13	I-OSAWA-11

"Good afternoon. That's a tough one to follow, but I've got a few concerns. My name's Dr. Andrew Currier. I'm representing Archbishop Riordan High School, as its President.

There's a multitude of concerns. But as it relates to this report, we serve 680 boys, 9 to 12, and a quarter of them, 170 of them, have diagnosed learning needs. And if you see, if I could pull this up, this circle RSP; that represents the learning area. It's a specialized designed learning area for

students with diagnosed learning needs that they can't -- we can't move them elsewhere in the building.

So, we're worried that there's not enough information about the noise, the dust, the disruption to their learning growth, their academic growth. Again, we don't have any option to move them elsewhere in the building, so we really want more detail on that. We want some sensitivity to that. These are young men that cannot be served by San Francisco public schools. These are specialized programs.

We also have 50 students in residence at Archbishop Riordan High School who, also, some of them have significant learning needs. They can't go elsewhere to receive this help."

*(Andrew Currier, PhD, President, Archbishop Riordan High School, CPC Hearing, September 12, 2019 [*O-ARHS-1*])*

"So, we need more information about the noise impact. How is this all -- how is the hammering, the excavation, the drilling, all of that noise, all of that disruption, the trucks when they're beeping to back up, the backhoes, all that noise, how is that going to impact -- is that going to be two years lost on 170 students' education, who are trying despite learning needs and differences, to prepare themselves for college.

They're paying, in some cases, $60,000 a year to attend Riordan for this specialized care. That's all going to be disrupted for two plus years? That's unacceptable to us. So, we need more detail on this."

*(Andrew Currier, PhD, President, Archbishop Riordan High School, CPC Hearing, September 12, 2019 [*O-ARHS-2*])*

"One example. The draft SEIR fails to include the City College multi-use building as a sensitive receptor, which I think is a euphemism for young kids, okay.

The multi-use building is 150 feet from the construction site and is used for childcare classes, for children and classes on the site.

The short term measurement location information in the SEIR, which is on page 3, section C.9, notes that, and I quote from the DEIR: The college campuses are generally not considered a noise-sensitive receptor.

The MUB has been used for childcare classes, for children on site for years and will continue to be used that way. Therefore, it qualifies as a noise-sensitive receptor. And the DEIR completely ignores that, as they ignore the impact to City College, and the impact on Riordan College."

*(Garry Bieringer, CPC Hearing, September 12, 2019 [*I-BIERINGER1-3*])*

"4. The draft SEIR fails to include the City College Multi-Use Building (MUB) as a sensitive receptor. MUB is approximately 150 feet from the construction site (per the scale of Figure 2-1, p. 2-2) and is used for childcare classes where children attend classes on site. The short-term measurement location information in the SEIR for ST-3 (page 3.C- 9) notes that "The Multi-Use Building is the nearest City College building to the project site; however, college campuses are generally not considered a noise-sensitive receptor." The MUB has been used for childcare classes for children on site for several years and is expected to continue to be used for that purpose and therefore needs to be recognized as a noise-sensitive receptor site that qualifies as such for noise testing."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-6*])*

"6. During Phase 0 of construction, there will be up to 200 one-way trips per day during peak activity, and the noisiest period will continue for two months (page 3.C-26). 22 truck trips are anticipated per hour. This is a truck trip every two to three minutes between the hours of 7am and 4pm. The noisiest period in Phase 1 would last four months. There is no school vacation that lasts for four months; so, even without including the seven-month noisiest period of Phase 2, during Phases 0 and 1, the level of truck hauling activity will occur during class hours and disturb classes as well as access to classes due to equipment VMT."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-8*])*

"10. We would appreciate a clear understanding of the noise impact of cutting the construction period from six to three (or four) years. Would the noisiest period of construction occur in the first two or three (or four) years whether the time period of the project is three (to four) or six years?"

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-12*])*

"11. We understand the same equipment will be used whatever the time schedule. But will a compressed time schedule mean more equipment will need to be operated simultaneously, increasing the noise level at certain times? It is to be expected that construction compressed into two phases would increase the level of disruption along community streets due to more frequent construction truck hauling near multiple sensitive receptors, residences, and education institutions."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-13*])*

"12. If the construction schedule is compressed, please address the likelihood of the need for additional hours of work per day or night required to meet the compressed timeframe. Will compressing the time frame into three years increase the risk of emergency requests for special permits for night work?"

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-14*])*

"13. If the City grants special work permits for periods outside of the standard allowable 7 am to 8 pm construction hours, boarding school students at Riordan HS and residents living along Plymouth, Ocean, Lee and on the Northeast side of the development in Sunnyside and Westwood Park, will likely experience sleep disturbance. The SEIR leaves open the possibility for special night permitting. This will affect the health, wellbeing and productivity of all concerned, and negative night permitting impacts should not be acceptable in this residential area."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-15*])*

"15. In general, although SF Planning doesn't include City College students in their learning environment as sensitive receptors in noise assessments, due to the type of activity and the duration and amount of noise exposure, they should be considered in this category. Per the World Health Organization, as stated in the SEIR document, a known health effect from noise is decreased performance on complex cognitive tasks (reading, attention, memorization and problem solving.)"

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-17*])*

"Consideration must be given to the impact of construction noise on the classrooms at Riordan High, as work will be done during school hours."

*(Ed Osawa, Email, September 22, 2019 [*I-OSAWA-11*])*

Response NO-3: Construction Noise Impacts

The comments express concern regarding noise impacts to sensitive receptors, hauling trips along North Access Road, nighttime construction, and the compressed construction schedule.

Comments regarding noise monitoring at childcare facility receptors are addressed in Response NO-1, Noise Baseline, on RTC p. 4.D-2.

The response to the construction noise impacts analysis is organized by the following subtopics:

- City College Multi-Use Building
- Archbishop Riordan High School
- North Access Road
- Nighttime Construction
- Compressed Construction Schedule

City College Multi-Use-Building

Commenters expressed concern that the City College Multi-Use-Building is not identified and analyzed as a sensitive receptor because the commenter states the child care classes would include child care and the presence of children. As stated on draft SEIR p. 3.C-4, the planning department defines noise-sensitive receptors as occupants of residences, schools, daycare centers, hotels, hospitals, places of worship, and nursing homes. Although not cited in the draft SEIR, the planning department uses the Governor's Office of Planning and Research's *General Plan Guidelines 2017* for defining noise-sensitive uses.[1] The guidelines identify noise-sensitive receptors to include residential land uses, hospitals, convalescent homes, schools, churches, and sensitive wildlife habitat, including the habitat of rare, threatened, or endangered species. The guidelines define noise-sensitive uses. The guidelines do not define uses such as City College classes as a noise-sensitive receptor. Thus, the draft SEIR does not include City College as a noise-sensitive receptor.

The planning department consulted with City College regarding the classes identified by the commenter.[2] Based on information from City College, these classes are child behavior observation classes. The classes at the Multi-Use Building are three hours in duration and are offered daily. However, parents may opt to bring their child once a week, or up to five times a week. There is no outdoor space for children associated with the Multi-Use Building. Locations where a land use is designed for children to receive instruction on a regular basis (i.e., are enrolled) such as an elementary or pre-school are typically considered to be noise-sensitive.

In an effort to disclose potential construction noise impacts at the exterior of the Multi-Use Building, an analysis of the construction noise impacts at the exterior of the Multi-Use Building is provided in **Table RTC-3, Estimated Daytime Construction-Related Noise Levels at the Multi-Use Building**. As can be seen from this table, exterior noise levels would be below the 90 dBA standard applicable to residential uses but would exceed the applicable 65 dBA "Ambient + 10 dBA" standard for this location by 10 dB during Phase 0 and 5 dB during Phases 1 and 2. As stated above, there are no outdoor space for children associated with the Multi-Use Building, and construction noise heard inside the building would be further attenuated by the building which is of recent construction. Additionally, **Mitigation Measure M-NO-1**: **Construction Noise Control Measures** would further reduce the construction noise impact heard inside the building at this receptor. Nevertheless, as stated on draft SEIR p. 3.C-31, the overall construction noise impact of the proposed project is significant and unavoidable with mitigation.

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1 Governor's Office of Planning and Research, *State of California 2017 General Plan Guidelines*, 2017, p. 136. Available at: *http://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf*

2 Rosario Villasana, Department Chair of Child Development and Family Studies, City College. Phone correspondence with Jeanie Poling, San Francisco Environmental Planning, on October 1, 2019.

TABLE RTC-3
ESTIMATED DAYTIME CONSTRUCTION-RELATED NOISE LEVELS AT THE MULTI-USE BUILDING

Construction Phase and Noisiest Combined Construction Activities	Hourly Leq in dBA at 50 Feet[a]	Minimum Distance between Receptor and Closest Equipment (feet)	Noise Level (Leq) Adjusted for Distance[b]	Daytime FTA Standard at Residential Uses (dBA)	Does Noise Level Exceed FTA Standard?	Ambient + 10 dBa Standard[c] at Closest Receptor	Does Noise Level Exceed Ambient + 10 dBa Standard?
Existing Noise Receptor: City College Multi-Use Building							
Phase 0 – Surface Preparation and Demolition	85	175	75	90	No	65	**Yes**
Phase 1 Building Construction	81	175	70	90	No	65	**Yes**
Phase 2 Building Construction	81	175	70	90	No	65	**Yes**

SOURCE: ESA, 2019.

NOTES:

dBA = A-weighted decibel; FTA = Federal Transit Administration; noise levels in **bold** exceed the indicated standard.

[a] As calculated with the RCNM model with no attenuation for intervening berms or buildings.

[b] Combined hourly noise levels were attenuated 6 dB for every doubling of distance from the source.

[c] People often perceive 10 dBA as a doubling of loudness. The daytime ambient noise levels of 62 dBA were estimated using roadway noise modeling data for Judson Avenue.

Archbishop Riordan High School

One commenter expresses concern about construction noise impacts to students at Archbishop Riordan High School. As discussed on draft SEIR p. 3.C-25, Archbishop Riordan High School would be the receptor nearest to the project site's eastern property line. The receptor is actually located along the northern property line of the project site. The text on draft SEIR p. 3.C-25 is revised as follows to correct the location of this receptor (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> Archbishop Riordan High School would be the receptor nearest to the ~~eastern~~ northern property line. Archbishop Riordan High School would be located approximately 80 feet from Phase 0 demolition activities which would last approximately two months.

The high school is a land use designed for children to receive instruction on a regular basis and is therefore considered a noise-sensitive receptor for the analysis. Impacts from fugitive dust generated during construction are addressed under Impact AQ-1 on draft SEIR pp. 3.D-44 to 3.D-45. The construction noise impact analysis applies three separate noise criteria.

Archbishop Riordan High School would be located approximately 80 feet from Phase 0 demolition activities, which would last approximately two months. The high school is also about 80 feet from the peak construction haul truck activity along North Access Road, which would occur over a four-month period. During Phase 1 and Phase 2, the high school would be approximately 50 feet from standard construction activities for Lee Avenue and Block G, respectively. Construction noise

impacts are identified as a significant impact in the draft SEIR based on the increase of noise levels over existing ambient levels and the duration of the overall construction period.

Predicted noise levels are conservative in that they assume activity at the closest point to each sensitive receptor, which would occur for only a fraction of the entire duration of demolition and construction activity. As demolition progresses away from the receptor location, noise levels experienced by the closest receptor would be less than the noise levels in draft SEIR Table 3.C-8, which reflect demolition activity as a worst-case analysis.

Mitigation Measure M-NO-1, Construction Noise Control Measures, is identified in the draft SEIR to reduce the severity of construction noise impacts to the degree feasible. This mitigation includes measures that would be directly applicable to reducing noise impacts at Archbishop Riordan High School, such as locating noisy activities as far from receptors as feasible, shielding noisy stationary equipment, and erecting temporary plywood noise barriers around the construction site, particularly where a site adjoins noise-sensitive uses such as Archbishop Riordan High School. The required project-specific noise control plan would also include identification of a community liaison to address noise complaints and preparation of a weekly noise monitoring log reports for any noise complaints received. The report must document noise levels, exceedances of threshold levels, if reported, and corrective action. However, even with implementation of this mitigation measure, given the extended duration of construction phases and given that noise levels would substantially exceed existing noise levels at Archbishop Riordan High School, the construction noise impact is identified in the draft SEIR as significant and unavoidable with mitigation.

North Access Road

A comment expressed concern that the frequency and duration of truck hauling trips along North Access Road would extend beyond potential summer break periods and disturb classroom operations at Archbishop Riordan High School. The SEIR identified the impact as significant and unavoidable with mitigation.

The commenter is correct that during Phase 0 of construction, there would be up to 200 one-way trips per day during peak activity, and the noisiest period would continue for two months. As further stated on draft SEIR p. 3.C-26, 22 truck trips are anticipated per hour during peak demolition periods with a frequency of a truck trip every two to three minutes between the hours of 7 a.m. and 4 p.m. Table 3.C-8 on draft SEIR p. 3.C-27 presents the contribution of both haul trucks and equipment during each phase of construction, and shows that the contribution of haul trucks to hourly noise levels would be 63 dBA at Archbishop Riordan High School, which is approximately 6 dBA greater than existing noise levels. However, as indicated in this same table, the noise contribution from demolition equipment would be up to 82 dBA when occurring at the nearest point to Archbishop Riordan High School, which would have the greater potential for causing temporary increases in noise levels that could be disturbing to classes. As stated above, predicted off-road equipment noise levels are conservative in that they assume activity at the closest point to each sensitive receptor, which would occur for only a fraction of the entire duration of demolition and construction activity. This impact would primarily occur during demolition and excavation in Phase 0, when on-road trucks would be travelling on North Access Road. (The

permanent relocation of North Access Road is described in Variant 4: North Street Extension on draft SEIR p. 5-22 and depicted in Figure 5-4 on draft SEIR p. 5-20.)

To further address this comment with respect to potential noise impacts to Riordan High School and a temporary or permanent relocation of North Street, the text of Mitigation Measure M-NO-1 on draft SEIR p. 3.C-30 is modified, as indicated in Response NO-6: Noise Mitigation Measure, on RTC p. 4.D-21, below.

Mitigation Measure M-NO-1, Construction Noise Control Measures, is identified in the SEIR to implement all feasible mitigation to reduce the severity of construction noise impacts to the degree feasible as required by CEQA Guidelines section 15126.4(a)(1). Mitigation includes preparation and implementation of a project-specific noise control plan. Even with implementation of this mitigation measure, the project as analyzed in the draft SEIR and as revised above, given the extended duration of construction phases and given that noise levels would substantially exceed existing noise levels at Archbishop Riordan High School, the construction noise impact is identified in the draft SEIR as significant and unavoidable with mitigation. These revisions do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts.

Nighttime Construction

One comment raises concerns regarding potential impacts to sleep disturbance from nighttime construction work. As stated on draft SEIR p. 3.C-23, construction activity would generally occur during daytime hours. Nighttime construction noise is not expected to occur frequently or regularly Accordingly, no hauling of materials, equipment warm-up, or any other activity is anticipated during nighttime hours except in unusual circumstances such as large concrete pours, which may require earlier start or later finish times, as explained on draft SEIR p. 2-39. The project sponsor has indicated that each building would require one concrete pour. If nighttime work after 8 p.m. were needed, a special nighttime construction permit would be required and subject to review, permitting, and approval by the San Francisco Department of Building Inspection. Mitigation Measure M-NO-1 also includes a requirement for the project sponsor to notify the planning department's development performance coordinator at the time that night noise permits are requested or as soon as possible after emergency/unanticipated activity causing noise with the potential to exceed noise standards has occurred. Tohe text on draft SEIR p. 3.C-23 is modified as indicated in Response NO-1, Noise Baseline, on RTC p. 4.D-2, to clarify nighttime work. As noted in Response NO-1, the text changes do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts.

Compressed Construction Schedule

Several comments express concerns that a compressed schedule would result in increased intensity of construction and therefore greater construction noise levels. Compression of the construction schedule from six to three years would increase the intensity of construction and may result in more individual pieces of equipment operating simultaneously than under the proposed six-year construction period.

Under the compressed scenario, Phase 0 would occur over a 12-month period, the same as under the six-year construction scenario; therefore, the construction noise impacts for Phase 0 would be the same. Under the compressed scenario, Phases 1 and 2 would be constructed simultaneously after Phase 0 and would involve more equipment operation but not at the same location, as Phase 1 and Phase 2 are in separate geographic areas of the project site. Consequently, construction noise impacts at Archbishop Riordan High School as assessed in Table 3.C-8 of the draft SEIR would increase by 3 dBA and only if development of Blocks G and TH2 would occur simultaneously (see Figure 2-18, draft SEIR p. 2-40). Other Phase 1 development would be over 300 feet away from Archbishop Riordan High School, such that construction noise would be attenuated by distance so as not to contribute considerably to construction noise from concurrent development of Phase 2 area under the compressed schedule.

Additionally, because construction noise analysis involves consideration of the simultaneous operation of the two noisiest pieces of equipment, the compressed construction scenario would not appreciably result in a change in the character of the significant and unavoidable construction noise impact identified in the draft SEIR. Therefore, due to the attenuation between the project construction and nearest sensitive receptors, the compressed construction scenario would have a potential for only a modest increase in noise levels over those predicted for the proposed schedule.

Similar to the proposed six-year schedule, the truck trips would be phased over the duration of the planned construction activities but compressed into three years. As described in Section 3.B, Transportation and Circulation, draft SEIR pp. 3.B-60 to 3.B-61, under the compressed schedule, the average number of construction-related truck trips would increase by approximately 20 percent. Therefore, the peak volume of truck trips under the compressed schedule would also occur over four months in 2022 and would be 1.2 times greater than the six-year schedule due to the simultaneous construction of Phase 1 and 2. As indicated in Table 3.C-8 on draft SEIR p. 3.C-27, the noise contribution of truck trips would be much less than that of off-road construction equipment. As for the proposed construction schedule and as acknowledged on draft SEIR p. 3.C-29, the compressed construction schedule would result in a construction noise impacts from off-road equipment and haul trucks that would be *significant and unavoidable*. There would not be a substantial increase in the severity of construction noise impacts under the compressed schedule compared to that of the proposed project.

The text on draft SEIR p. 3.C-29 is revised as follows to clarify the noise analysis under the compressed construction schedule (deleted text is shown in ~~strikethrough~~ and new text is shown in <u>double underline</u>):

> As stated in the footnote to Table 2-2, p. 2-38, the phasing of project implementation would be subject to changes due to market conditions and other unanticipated factors. Consequently, construction could be complete as early as 2024 or extend beyond 2027. If construction occurs over a shorter period than shown in Table 2-2 (e.g., Phases 1 and 2 occurring simultaneously following Phase 0), a relatively larger amount of construction would take place during a relatively shorter period of time, thereby increasing the typical daily construction activity.

Compression of the construction schedule from six to three years would increase the intensity of construction and may result in more individual pieces of equipment operating simultaneously than under the proposed six-year construction period of the project. Under the compressed scenario, Phase 0 would occur over a 12-month period, as under the six-year construction scenario; therefore, the construction noise impacts for Phase 0 would be the same.

Under the compressed scenario, Phases 1 and 2 would be constructed simultaneously after Phase 0 and would involve more equipment operation but not at the same location, as Phase 1 and Phase 2 are in separate geographic areas of the project site. Consequently, construction noise impacts at Archbishop Riordan High School as assessed in Table 3.C-8 would increase by 3 dBA and only if development of Blocks G and TH2 would occur simultaneously (see Figure 2-18). All other Phase 1 development would be over 300 feet away, such that construction noise would be attenuated by distance so as not to contribute considerably to construction noise from concurrent development of Phase 2 area under the compressed schedule. Additionally, because construction noise analysis involves consideration of the simultaneous operation of the two noisiest pieces of equipment, the compressed construction scenario would not appreciably result in a change in the character of the significant and unavoidable construction noise impact identified. Therefore, due to the distances involved, the compressed construction scenario would only have a potential for a modest increase in noise levels over those predicted for the proposed schedule.

The peak volume of truck trips under the compressed schedule would also occur over four months in 2022 and would be 1.2 times greater than the six-year schedule due to the simultaneous construction of Phase 1 and 2. As indicated in Table 3.C-8 on SEIR p. 3.C-27, the noise contribution of truck trips would be much less than that of off-road construction equipment. There would not be a substantial increase in the severity of construction noise impacts under the compressed schedule compared to that of the proposed project. ~~The same pieces of equipment would be operating under a compressed construction schedule. Therefore, the maximum noise level would not change based on the methodology above combining the operation of the noisiest pieces of equipment with each phase.~~ Under the compressed construction schedule, the construction noise impact from off-road equipment would be *significant*.

These changes and additional analysis do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts.

Comment NO-4: Construction Vibration

This response addresses comments from the commenter listed below; each comment on this topic is quoted in full below this list:

I-HEGGIE2-16
I-TIMA-6

"14. Construction-related vibration impacts were not addressed in the PEIR. Studies do not include an evaluation of the vibration impact of construction equipment although as noted on p. 3.C-32, equipment used for demolition, site preparation and excavation activities, including the hoe ram and vibratory roller/compactor, which will be used, could generate varying degrees of temporary groundborne vibration.

Per Table 3.C-6 on page 3.C-14, older buildings may be damaged at .1 PPV (in/sec) if they are fragile though old buildings or residential structures would normally be able to withstand a maximum of 0.25 to 0.3 PPV when subjected to continuous or frequent intermittent sources. The Vibratory Roller/Compactor, a piece of equipment that will be used, creates 0.21 PPV (in/sec) at 25 feet. Although it may not be likely, it is possible there are homes along Plymouth Avenue that are in close enough proximity and fragile enough to be damaged by vibration. Have the homes along Plymouth been evaluated for their distance and fragility for possible vibration impacts?"

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-16*])*

"And in regards to building, the shaking of the construction element way above the viability demands of construction. And my house is old and I do not want to have cracks in my stucco. Thank you."

*(Hedda Tima, CPC Hearing, September 12, 2019 [*I-TIMA-6*])*

Response NO-4: Construction Vibration

The comments express concern that the project could result in construction-related vibration impacts that may cause damage to structures. The commenter is correct that construction vibration was not analyzed in the Balboa Park Station Area Plan PEIR, and this is acknowledged on draft SEIR p. 3.C-2.

The draft SEIR did, however, analyze construction-related vibration impacts under Impact NO-2 on draft SEIR pp. 3.C-32 to 3.C-33. The methodology is provided on draft SEIR pp. 3.C-20 to 3.C-21 and 3.C-32 to 3.C-33, and is based on the California Department of Transportation and Federal Transit Administration guidance. Table 3.C-6, Vibration Guidelines for Potential Damage to Structures, on draft SEIR p 3.C-14, identifies the vibration level at which different structure types (i.e., from "extremely fragile historic buildings, ruins, ancient monuments" to "modern industrial/commercial buildings") would be subject to potential damage.

As noted on draft SEIR p. 3.C-22, construction equipment such as hoe rams and bulldozers could generate temporary groundborne vibration. As shown in Table 3.C-9 on draft SEIR p. 3.C-33, vibration levels at the Plymouth Avenue residences would be expected to be 0.21 in/sec peak particle velocity (PPV), which is below the 0.5 in/sec PPV standard for structural damage applicable to modern buildings. The Plymouth Avenue residences are considered older residential structures; therefore, the 0.3 in/sec PPV standard should be applied. Even with the 0.3 PPV standard, the Plymouth Avenue residences 25 feet away from the project site would experience less-than-significant vibration levels.

The second paragraph of draft SEIR p. 3.C-32 is revised as follows to correct the vibration standard for older residential structures (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> This analysis evaluates the significance of construction-related vibration on structures and people (receptors), specifically cosmetic damage effects on structures and sleep disturbance and associated health effects on people. For building damage, the threshold limit depends on the architectural characteristics of the potentially affected structure (see Table 3.C-6, p. 3.C-14)~~, but~~. ~~f~~For modern residential, industrial and commercial buildings, a standard of 0.5 in/sec PPV is applied, while for older residential structures, a standard of 0.3 in/sec PPV is applied. Potential nighttime concrete pours would not involve the use of vibration-generating equipment. The potential for sleep disturbance vibration effects are evaluated only when construction activities are proposed during the nighttime hours, which would not occur under the proposed project, therefore, there would be no sleep disturbance vibration impacts.

The fourth paragraph of SEIR p. 3.C-32 is revised as follows to correct the vibration standard for older residential structures (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> As shown in Table 3.C-6, p. 3.C-14, depending on the type of vibration (transient versus continuous), groundborne vibration generated by project-related demolition and construction activities above ~~0.5~~ 0.3 in/sec PPV could cause cosmetic damage to new or older nearby structures. As shown Table 3.C-9, estimated vibration levels of PPV's would be ~~well~~ below the ~~0.5~~ 0.3 in/sec threshold and this impact would be ***less than significant***.

These changes and additional analysis do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts.

Comment NO-5: Operational Noise Impacts

This response addresses comments from the commenter listed below; each comment on this topic is quoted in full below this list:

I-MUELLER1-3

"It should be obvious that proposing an unsafe density of housing units next to one of the largest and most successful Community Colleges in the State is not appropriate. It was wrong 30 years ago and it's wrong now. The sheer noise factor of thousands of new residents warehoused next to a college with a daily enrollment the size of a small city makes the educational environment totally compromised."

*(Madeline Mueller, Email, September 23, 2019 [*I-MUELLER1-3*])*

Response NO-5: Operational Noise

This comment expresses concern that operational noise from the proposed dense residential uses would be incompatible with the adjacent community college.

Operational noise impacts of the proposed project are assessed on draft SEIR pp. 3.C-33 to 3.C-38.

Impact NO-3 discusses the potential for the project to generate operational noise from fixed mechanical equipment. **Mitigation Measure M-NO-3, Fixed Mechanical Equipment Noise Controls**, on draft SEIR p. 3.C-36, is identified to reduce this potentially significant operational noise impact to a less-than-significant level by establishing a performance standard consistent with the noise limits established in section 2909(a) and (d) of the San Francisco Noise Ordinance.

The operational noise analysis in Impact NO-3 of the draft SEIR uses the noise exposure limits established in section 2909(a) and (d) of the San Francisco Noise Ordinance, which are land use based. Figure 3.C-3 on draft SEIR p. 3.C-16 presents the land use compatibility chart from the City and County of San Francisco General Plan Noise Element. As shown on this chart, the normally acceptable noise environment for residential uses within the City is up to 60 dBA, Ldn, while the normally acceptable noise environment for a school use is up to 65 dBA. Consequently, the Noise Element of the San Francisco General Plan considers multifamily residential uses to be compatible with the same noise environment as for educational uses, and the operational noise analysis and mitigation of the draft SEIR would be applicable to both residential and school land uses.

Impact NO-4 presents the operational traffic analysis associated with implementation of the proposed project. As can be seen from Table 3.C-11 on draft SEIR p. 3.C-37, there would not be a significant traffic noise increase along any roadways adjacent to sensitive land uses. Therefore, operation of the proposed project would not have a significant operational noise impact or land use compatibility impact with respect to noise exposure to adjacent school and collegiate land uses.

Comment NO-6: Noise Mitigation Measure

This response addresses comments from the commenter listed below; each comment on this topic is quoted in full below this list:

I-HEGGIE1-4
I-HEGGIE2-5

"The first mitigation measure for noise recommends selecting truck haul routes that, quote: Avoid the north access road and adjacent Riordan High School and residential uses along Lee Avenue.

But there is only one alternative route, Lee Avenue to Ocean Avenue, which is also adjacent to a sensitive receptor, the Harmony Family Childcare. A high school, nursery schools and daycare centers are located at or near all of the identified possible entrances and exit site points.

The Lee Avenue alternative is already identified in the Cumulative Transportation Items 4 and 6.B, as a route that poses significant and unavoidable adverse impacts to transportation and circulation, even after mitigation.

Mitigation measure for Noise Number 1 would only exacerbate another unmitigatable project issue. The first mitigation of the report also recommends undertaking the noisiest activities during times of least disturbance to surrounding residents and occupants, which are identified as 9:00 a.m. to 4:00 p.m. This coincides with the period when daycare centers and nursery schools are in session. Riordan High School holds classes and afterschool activities. And the majority of City College classes, including child development classes in the multi-use building, are in session.

The times of least disturbance need to be redefined."

*(Jennifer Heggie, CPC Hearing, September 12, 2019 [*I-HEGGIE1-4*])*

"2. The first Mitigation Measure for noise recommends selecting truck haul routes that "avoid the North Access Road and adjacent Riordan High School and residential uses along Plymouth Avenue." But there is only one alternative route, Lee Avenue to Ocean Avenue, which is also adjacent to a sensitive receptor, Harmony Family Childcare. A high school, nursery schools and daycare centers are located at, or near, all the identified possible entrance and exit points of the project. The Lee Avenue alternative is already identified in Cumulative Transportation Items 4 and 6b [C-TR-4 and C-TR- 6b] as a route that poses significant and unavoidable adverse impacts to transportation and circulation, even after mitigation. It appears that the mitigation measure for noise #1 would exacerbate another unmitigable project issue.

3. The first mitigation measure of the Report also recommends undertaking the noisiest activities during "times of least disturbance" to surrounding residents and occupants which are identified as from 9am-4pm [per page 3.C-30], a period prior to the maximum existing use of the adjacent land at City College, which is between 11am and 1pm. This coincides with the period when daycare centers and nursery schools are in session, Riordan HS holds classes and after school activities, and the majority of City College classes, including child development classes in the Multi-Use Building, are in session. The times of least disturbance needs to be redefined. There may be no time of least disturbance for the many diverse uses of the area, and if that is the case, that should be noted."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-5*])*

Response NO-6: Noise Mitigation Measure

Comments regarding construction impacts on sensitive receptors and potential impacts to childcare classes in the Multi-Use Building are addressed above in Response NO-3, Construction Noise Impacts, on RTC p. 4.D-11.

The comment expresses concern regarding the haul truck route cited in Mitigation Measure M-NO-1. The commenter also raises concerns that the identified times of least disturbance

suggested in Mitigation Measure M-NO-1 on SEIR p. 3.C-30 may not be appropriate for surrounding land uses near the Lee and Ocean avenue intersection.

The commenter is correct that if Lee Avenue were to be used as an alternative route, truck travel on this roadway could be a potentially significant impact to existing receptors along Lee Avenue. Lee Avenue already accommodates truck deliveries for the adjacent Whole Food Market, is adjacent to sensitive receptors with no setback, and is limited in width; thus, Lee Avenue does not represent a viable alternative as an alternate route for construction haul trucks. The draft SEIR identifies construction-related noise impacts as significant and unavoidable with mitigation, and Mitigation Measure M-NO-1 is intended to provide consideration to construct a temporary roadway to and from Frida Kahlo Way to avoid such impacts. The sixth bullet of Mitigation Measure M-NO-1 on draft SEIR p. 3.C-30 is modified as follows:

- Undertake the noisiest activities (e.g., demolition using hoe rams) during ~~times of least disturbance to surrounding residents and occupants~~ the hours of~~to~~ (9 a.m. to 4 p.m.); and select or construct haul routes that avoid the North Access Road and the adjacent Archbishop Riordan High School and residential uses along Plymouth Avenue and Lee Avenue, such as the temporary or permanent relocation of North Street.

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Commented [PJ(2]: Also apply this change to Chapter 5 and the MMRP and anywhere else we cite the mitigation measure (intro or summary table?)

The feasibility of implementing either a temporary or permanent North Street extension is unknown at this time, as it would require development of an agreement on timing and right-of-way acquisition with City College. Consequently, the second full paragraph on draft SEIR p. 3.C-31 is revised as follows (deleted text is shown in ~~strikethrough~~ and new text is shown in double underline):

> **Significance after Mitigation**: Significant and Unavoidable. Implementation of construction-related noise control measures in Mitigation Measure M-NO-1 would reduce the project's temporary or periodic increases in ambient noise levels. However, given that there would still be periods of peak construction activity exceeding the "Ambient + 10 dBA" standard at the nearest sensitive receptor locations for occasional periods when activity would be conducted at the property lines nearest to receptors, these occurrences would occur in all three phases of construction over an extended period of up to six years.
>
> Plywood barriers or moveable sound barrier curtains can provide, at best, 10 to 15 dBA of sound attenuation but would not be effective for elevated receptors in the 1100–1150 Ocean Avenue residences. The feasibility of implementing either a temporary or permanent North Street extension is unknown at this time, as it would require development of an agreement on timing and right-of-way acquisition with City College.
>
> If construction were to be conducted under the compressed schedule and be complete as early as 2024, a relatively larger amount of construction would take place during a relatively shorter period of time, thereby increasing the typical daily construction activity. Therefore, in either case the construction noise impacts would be significant and unavoidable with mitigation.

This would not change the conclusions of the draft SEIR as the draft SEIR identified this impact as significant and unavoidable with mitigation.

The modifications to Mitigation Measure M-NO-1 clarify that the project sponsor should select or construct haul routes that avoid the North Access Road and the adjacent Archbishop Riordan High School and residential uses along Plymouth Avenue and Lee Avenue, such as the temporary or permanent relocation of North Street; the permanent relocation is described in Variant 4: North Street Extension on draft SEIR p. 5-22 and depicted in Figure 5-4 on draft SEIR p. 5-20. The feasibility of implementing the North Street extension, as envisioned in Variant 4, is unknown at this time, as it would require development of an agreement on timing and right-of-way acquisition with City College.

As the commenter states, there is likely no set period where all noise-sensitive receptors would be unlikely to be present. Mitigation Measure M-NO-1 would require that the noisiest activities be conducted during daytime hours, and the intent of this mitigation is to restrict the noisiest activity to hours when a majority of receptors such as residential uses along Plymouth Avenue may be less impacted by construction noise. With respect to alternative hours of hauling, it is infeasible to assign truck trip hauling activities during nighttime periods when residents are more likely to be asleep. It is also infeasible to shorten or require different daytime hour of hauling, as they would not align with contractor worker hauling schedules, or such hours would prolong the construction period such that noise impacts may be prolonged too.

Notwithstanding these efforts, the construction noise impact is identified as significant and unavoidable with mitigation.

Comment NO-7: Cumulative Noise

This response addresses comments from the commenter listed below; each comment on this topic is quoted in full below this list:

I-HEGGIE2-18

"16. As you note, because City College has been making changes to their master plan, checking in with them for their most current plans for development in the areas closest to the Balboa Reservoir is an ongoing process. A recent plan calls for constructing a Performing Arts Education Center building twice as tall as the one indicated in the DEIR on the City College-owned "upper reservoir." Please take into account the cumulative impact to noise of new plans."

*(Jennifer Heggie, Email, September 23, 2019 [*I-HEGGIE2-18*])*

Response NO-7: Cumulative Noise

As discussed on draft SEIR p. 3.C-40, although City College adopted a facilities master plan in March 2019, this facilities master plan does not provide adequate information to develop a quantitative cumulative impact analysis as part of the draft SEIR. The approach to the cumulative impact analysis with respect to City College is also described on draft SEIR pp. 3.A-10 to 3.A-14. This section describes the available information of the facilities master plan projects and~~,~~ the potential bond measure, and acknowledges that the facilities master plan projects may change depending on funding availability. The draft SEIR noise section qualitatively assesses the impacts of the various City College Ocean Campus projects.

The cumulative construction noise impacts are analyzed based on the closest cumulative project where concurrent construction would have the potential to cumulatively increase noise levels at existing sensitive receptors. Archbishop Riordan High School is the closest sensitive receptor to the project site and east basin where some City College facilities master plan projects could be constructed (see draft SEIR p. 3.C-38). As described in ~~RTC Chapter 5,~~the ~~Draft~~ draft SEIR ~~Revisions~~, on ~~RTC~~ p. ~~5-1~~3.A-14, the ~~recently passed~~ City College bond measure project list presented to the City College Board of Trustees in 2019 does not include the East Basin Parking Garage. The garage~~,~~ ~~which~~ is the closest cumulative project to Archbishop Riordan High School but ~~now less likely to~~may not be constructed concurrently with the proposed project. The new Diego Rivera Theater and a smaller STEAM building, which were identified as potential bond-funded ~~improvements~~projects when presented to the City College Board of Trustees in 2019, replaced the Performing Arts Education Center on the east basin. These projects would be approximately 300 feet from Archbishop Riordan High School. The analysis in the draft SEIR is therefore conservative, in that it assumed that City College would construct the East Basin Parking Garage concurrent with the Balboa Reservoir project, and that it would be the closest cumulative project to a sensitive receptor at 80 feet away. Therefore, the cumulative analysis appropriately considers the growth and development information available for the City College Ocean Campus at the time of the draft SEIR preparation.