APPENDIX H2

Noise Supplemental Memorandum

DECEMBER 4, 2025

Mr. Eric Turner
VCS ENVIRONMENTAL
30900 Rancho Viejo Road, Suite 100
San Juan Capistrano, CA 92675

SUBJECT: GINKGO STONEHOUSE RESIDENTIAL PROJECT NOISE IMPACT STUDY, CITY OF SIERRA MADRE – SUPPLEMENTAL MEMORANDUM

Dear Mr. Turner:

INTRODUCTION

RK ENGINEERING GROUP, INC. (RK) is pleased to provide this supplemental memorandum for the proposed Ginkgo Stonehouse Residential Project (hereinafter referred to as "project").

RK previously conducted a noise impact study for the project in 2024, which analyzed the construction and operational noise impacts from the project to the surrounding community. This memorandum addresses concerns about construction activity occurring near structures on adjacent properties based on the project's latest construction plans.

PROJECT VIBRATION IMPACTS

It has come to RK's attention that a neighboring structure is located along the property line adjacent to lots 1 and 2. To determine the vibratory impacts from the project during construction, reference construction equipment vibration levels were utilized and then extrapolated to the façade of the adjacent structure. This structure is considered to be an older building and the "historic and some old buildings" vibration threshold within the *Caltrans Transportation and Construction Induced Vibration Guidance Manual* is applicable.

The construction of the proposed project is not expected to require the use of substantial vibration-inducing equipment or activities, such as pile drivers or blasting. The main source of vibration impacts during the construction of the project would be the operation of equipment such as bulldozer activity during site preparation, loaded trucks during grading and excavation, and vibratory rollers during paving. Bulldozer and loaded truck activity will take place approximately 10 feet from the nearest adjacent structure, and vibratory roller activity will take place approximately 129 feet from the nearest adjacent structure.

Table 1 shows the project's unmitigated construction-related vibration analysis at the nearest structure to the project's construction area.

Table 1 | Construction Vibration Impact Analysis

Construction Activity	Distance to Nearest Structure (Feet)	Duration	Calculated Vibration Level (PPV) (in./sec.)
Large Bulldozer	10	Continuous/Frequent	0.244
Loaded Trucks	10	Continuous/Frequent	0.208
Vibratory Rollers	129	Continuous/Frequent	0.035
Worst-Case Construction Vibration Level			**0.244**
Vibration Damage Potential Threshold[1]			0.250
Vibration level exceeds threshold?			**No**

[1] Source: Caltrans Transportation and Construction Vibration Guidance Manual (April 2020) vibration damage potential threshold for "historic and some old buildings".

Based on **Table 1**, project-related construction activity is not expected to cause any potential damage to the nearest structure. To help ensure construction activity does not impact the adjacent structure, the following condition of approval is recommended:

1. No heavy vibratory equipment, including bulldozers and truck loading activity shall be opererated closer than 10 feet from the nearest adjacent structure.

CONCLUSIONS

By following the recommended condition of approval, project-related construction activity is not expected to cause potential damage to the nearest structures. **Hence, the impact from construction-related vibration will be less than significant.** RK Engineering Group, Inc. appreciates this opportunity to work with VCS ENVIRONMENTAL. If you have any questions regarding this review, or need further clarification, please contact us at (949) 474-0809.

Sincerely,
RK ENGINEERING GROUP, INC.

Bryan Estrada
Principal

Claire Stokes
Planner I

PROJECT:	Ginkgo Stonehouse Residential Project	JOB #:	2389-2023-08
ACTIVITY:	Vibration Impact Study	DATE:	12/4/2025
LOCATION:	Nearest adjacent structures	ENGINEER:	C. Stokes

VIBRATION INPUT/OUTPUT DATA

OTHER CONSTRUCTION EQUIPMENT

$$PPV = PPV_{ref}(25/D)^{n} \text{ (in/sec)}$$

PPV =	**0.244 in/sec**

Equipment Type =	2	Large Bulldozer
PPV_{ref} =	0.089	Reference PPV at 25 ft.
D =	10.00	Distance from Equipment to receiver in ft.
n =	1.10	Vibration attenuation rate through the ground

EQUIPMENT PPV REFERENCE LEVELS

Type	Equipment	Reference PPV
1	Vibratory Roller	0.210
2	Large Bulldozer	0.089
3	Caisson Drilling	0.089
4	Loaded Trucks	0.076
5	Jackhammer	0.035
6	Small Bulldozer	0.003
7	Crack and Seat	2.400

PROJECT:	Ginkgo Stonehouse Residential Project	JOB #:	2389-2023-08
ACTIVITY:	Vibration Impact Study	DATE:	12/4/2025
LOCATION:	Nearest adjacent structures	ENGINEER:	C. Stokes

VIBRATION INPUT/OUTPUT DATA

OTHER CONSTRUCTION EQUIPMENT

$$PPV = PPV_{ref}(25/D)^{n} \text{ (in/sec)}$$

PPV =	**0.208 in/sec**

Equipment Type =	4	Loaded Trucks
PPV_{ref} =	0.076	Reference PPV at 25 ft.
D =	10.00	Distance from Equipment to receiver in ft.
n =	1.10	Vibration attenuation rate through the ground

EQUIPMENT PPV REFERENCE LEVELS

Type	Equipment	Reference PPV
1	Vibratory Roller	0.210
2	Large Bulldozer	0.089
3	Caisson Drilling	0.089
4	Loaded Trucks	0.076
5	Jackhammer	0.035
6	Small Bulldozer	0.003
7	Crack and Seat	2.400

VIBRATION IMPACTS FROM CONSTRUCTION AND OPERATIONS

PROJECT:	Ginkgo Stonehouse Residential Project	JOB #:	2389-2023-08
ACTIVITY:	Vibration Impact Study	DATE:	12/4/2025
LOCATION:	Nearest adjacent structures	ENGINEER:	C. Stokes

VIBRATION INPUT/OUTPUT DATA

OTHER CONSTRUCTION EQUIPMENT

$$PPV = PPV_{ref}(25/D)^{n} \text{ (in/sec)}$$

PPV =	**0.035 in/sec**

Equipment Type =	1	Vibratory Roller
PPV_{ref} =	0.210	Reference PPV at 25 ft.
D =	129.00	Distance from Equipment to receiver in ft.
n =	1.10	Vibration attenuation rate through the ground

EQUIPMENT PPV REFERENCE LEVELS

Type	Equipment	Reference PPV
1	Vibratory Roller	0.210
2	Large Bulldozer	0.089
3	Caisson Drilling	0.089
4	Loaded Trucks	0.076
5	Jackhammer	0.035
6	Small Bulldozer	0.003
7	Crack and Seat	2.400