

Source: University of California, Santa Cruz

Rating form  
completed by:**MAFFEI STRUCTURAL ENGINEERING**  
maffei-structure.com

Karl Telleen, Sage Shamsai, Joe Maffei

Text in *green* is to be part of UC Santa Cruz building database and may be part of UCOP database

## UC Santa Cruz building seismic ratings

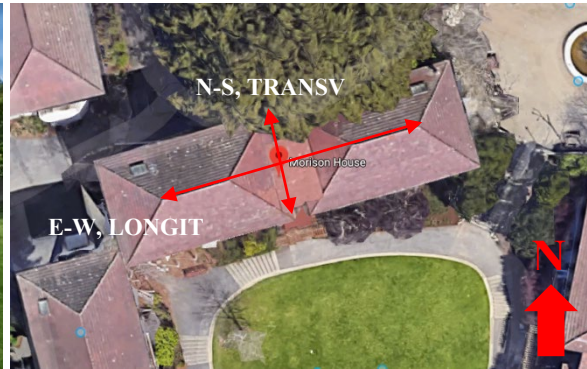
### Morison House Residential Building, Cowell College

CAAN #7123

514 Cowell-Stevenson Road, Santa Cruz, CA 95064

UCSC Campus: **Main Campus**

DATE: 2019-06-30



Rating summary	Entry	Notes
UC Seismic Performance Level (rating)	V (Poor)	
Rating basis	Tier 1	ASCE 41-17 <sup>1</sup>
Date of rating	2019	
Recommended UC Santa Cruz priority category for retrofit	Priority B	Priority A=Retrofit ASAP Priority B=Retrofit at next permit application
Ballpark total construction cost to retrofit to IV rating <sup>2</sup>	Medium (\$50 - \$200/sf)	See recommendations on further evaluation and retrofit.
Is 2018-2019 rating required by UCOP?	Yes	Building was not previously rated
Further evaluation recommended?	Tier 2	Focused on adequacy of out-of-plane connections particularly if investigating termite damage

<sup>1</sup> We translate this Tier 1 evaluation to a Seismic Performance Level rating using professional judgment. Non-compliant items in the Tier 1 evaluation do not automatically put a building into a particular rating category, but we evaluate such items along with the combination of building features and potential deficiencies, focused on the potential for collapse or serious damage to the gravity supporting structure that may threaten occupant safety. See Section III B of the UC Seismic Policy and Method B of Section 321 of the 2016 California Existing Building Code.

<sup>2</sup> Per Section 3.A.4.i of the Seismic Program Guidebook, the cost includes all construction cost necessitated by the seismic retrofit, including restoration of finishes and any triggered work on utilities or accessibility. It does not include soft costs such as design fees or campus costs. The cost is in 2019 dollars.

### Brief Description of Structure

Morison House is one of seven residential buildings in Cowell College, all of which were similarly designed in 1964 and constructed at the same time in 1965. These buildings differ primarily in terms of the number of stories (ranging from 2 to 4) as well as whether they include a basement or crawlspace below the first story. Based on the similarities of these buildings, details of evaluation and findings applicable to all of these buildings are contained in the Prescott House building rating report (CAAN: 7124). This report notes only items that are different for Morison House compared to Prescott House.

The structural differences between Morison House (this report) compared to Prescott House (the referenced report) are that Morison House includes one 3-story building and one 4-story building, while Prescott House is composed of two 4-story buildings. In addition, both of the buildings in Morison contain crawlspaces, whereas for Prescott House, only one of the buildings include a crawlspace. These differences are judged not to change the overall seismic rating of the building.

Additional building data	Entry	Notes
Latitude	36.996861	
Longitude	-122.054223	
Are there other structures besides this one under the same CAAN#		
Number of stories above lowest perimeter grade	3, 4	
Number of stories (basements) below lowest perimeter grade	0	Unoccupied Crawl Space is not considered a story
Building occupiable area (OGSF)	13379	
Risk Category per 2016 CBC Table 1604.5		
Building structural height, $h_n$	31, 40 ft	Structural height defined per ASCE 7-16 Section 11.2
Coefficient for period, $C_t$		
Coefficient for period, $\beta$		
Estimated fundamental period		

Site data
975 yr hazard parameters $S_s, S_1$
Site class
Site class basis
Site parameters $F_a, F_v$
Ground motion parameters $S_{cs}, S_{c1}$
$S_a$ at building period
Site $V_{s30}$
$V_{s30}$ basis
Liquefaction potential
Liquefaction assessment basis

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Landslide potential

Landslide assessment basis

Active fault-rupture identified at site?

Fault rupture assessment basis

Site-specific ground motion study?

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**Applicable code**

Applicable code or approx. date of original construction

Applicable code for partial retrofit

Applicable code for full retrofit

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**Model building data**

Model building type North-South

Model building type East-West

FEMA P-154 score

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**Previous ratings**

Most recent rating

Date of most recent rating

2<sup>nd</sup> most recent rating

-

Date of 2<sup>nd</sup> most recent rating

-

3<sup>rd</sup> most recent rating

-

Date of 3<sup>rd</sup> most recent rating

-

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**Appendices**

ASCE 41 Tier 1 checklist included here?