

## **Response Procedures for Activating & Deploying Volunteer Building Safety Evaluation Engineers**



### **Purpose**

When a natural disaster (earthquake, hurricane, storm, flood, tsunami) occurs in a community, there is often an immediate need for qualified professionals to evaluate damaged buildings for safety of occupancy. The procedures covered in this document pertain to the use of volunteer engineers from nongovernmental professional organizations in less affected areas to assist the affected jurisdiction during a declared disaster or emergency. The volunteers will provide, in accordance with Applied Technology Council (ATC) procedures, initial Rapid Evaluations of building safety, which may be followed, as necessary, by more thorough Detailed/Engineering Evaluations.

### **Pre-Disaster Organization and Training**

Professional organizations, in cooperation with State Civil Defense (SCD), assist in the arrangement of training seminars in building safety evaluation. The training is based on the methods from the Applied Technology Council's ATC-20 and ATC-45 series of safety evaluation procedures and field manuals, as adapted for Hawaii. Training should be funded or subsidized by the State and conducted every two years, alternating between new volunteer training and refresher course training. Members of professional organizations may register as volunteers serving on behalf of their organization, and shall not be deemed representatives of their firms.

Refer to Appendix A for the current list of Structural Engineers Association of Hawaii (SEAOH) volunteers, including their status in ATC-20 and ATC-45 training. SEAOH will update this list annually. SCD should incorporate the SEAOH list into a master list of all volunteers, and update the master list on an annual basis. SCD should utilize this list in an annual disaster training exercise. Volunteers should be issued a copy of this response procedures document and an identification card upon registration by SCD for use as credentials during a disaster deployment. Since access to particular areas may be further restricted by county incident commanders in some instances, the identification cards do not authorize "universal" access privileges. Checkpoints and credentialing areas may be established by county police to verify identification and establish a controlled perimeter to properly identify authorized responders during emergencies.

### **Post-Disaster Volunteer Engineer Activation**

Immediately after a disaster that results in significant building damage, the SCD Community Emergency Response Team manager will first contact the potential volunteer engineers on the master list. Volunteers who learn of a disaster may also contact their organization's disaster response committee on their own initiative to indicate their availability, which will then be reported to SCD. By this means, those volunteers willing and able to respond are preliminarily identified. If lacking sufficient personnel resources, the affected county jurisdiction may request the aid of volunteer engineers via their respective county civil defense agency to SCD. The number of volunteers and the duration needed for building safety evaluations should be stated by the county. In the case of a widespread disaster, volunteers from out-of-state may be required. If so, SCD should contact the appropriate out-of-state Emergency Management Agencies to activate emergency call-up procedures for their volunteer structural engineers.

### Authority and Coordination

State Civil Defense has overall organizational responsibility for coordination of the program. Once deployed to a disaster site, county building officials have the civil authority to determine building safety and occupancy, and the building officials direct the tasking of the volunteers. The county building officials may also designate accepted volunteers with the "authority to tag" on behalf of the county. The county agency responsible for post-disaster building safety evaluations is prescribed in the county's Emergency Operations Plan. It is typically the building division of the county department of public works (Kauai, Hawaii, Maui) or department of design and construction (Honolulu).

All State agencies that comprise the State Emergency Response Team are grouped into Emergency Support Functions (ESF) to carry out coordination and completion of assigned missions, in accordance with the National Incident Management System (NIMS). State Emergency Coordination Officers for each ESF are authorized to use the resources of their respective agency or organization to carry out response and recovery missions that are determined by the unified command. The Emergency Coordination Officer (ECO) for ESF #3, Public Works and Engineering, is the Administrator of Public Works from the Department of Accounting and General Services.

### Timing

The following is a recommended timeframe for the request and deployment of outside assistance:

Action	Within
SCD contacts volunteers and furnishes list of potentially available building safety evaluation engineers to the ESF #3 ECO (DAGS Public Works Administrator)	24 hours
SCD, ESF #3 ECO, and County arranges logistics and deployment areas with the professional association's disaster response representatives	2 days
Deployments to Disaster Begin	3 to 4 days

**SCD must issue a formal written acknowledgement and acceptance of the volunteer engineers for performing building safety evaluations to their professional association prior to deployment for each particular disaster.** The list of engineers deploying to the county shall be furnished to the county's civil defense agency as well as the county building division.

### Transportation and Housing

The responding volunteers travel to the disaster site shall be arranged by the ESF #3 ECO with the county. The arrangements for specific deployment dates and duration, transportation, lodging, meal allowances, and other county logistics should be coordinated with representatives of the professional engineers association. Transportation alternatives include personal vehicle, commercial air, military air, or ship. When volunteers are assisting from off-island or out-of-state, housing options include hotels/motels, temporary shelters, or perhaps even tent camps. Whenever possible, internet access should be available at the lodging facility for communication purposes with the offices of the volunteer engineers. Ground transportation may include county or state jurisdiction vehicles or rental cars. The county shall be responsible for all travel costs. Reasonable expenses incurred by volunteers in connection with their assignments shall be reimbursed via a per diem. Expenses for use of personal vehicles shall be reimbursed at standard mileage rates.

**Other Items to be Furnished by the County:**

Street maps, ATC Field Manuals and inspection forms, posting placards, barricade tape, clipboards, fasteners for placards, daily inspection sheets with the locations of buildings to be evaluated, and information with the names and phone numbers of post-disaster aid services to hand out in affected areas. The names and contact information of county officials involved in the safety evaluation program should be furnished to the volunteers or their professional organization's representative

**Liability Protection for Volunteer Engineers/Architects**

Under Hawaii State Law (Hawaii Revised Statutes Chapter 128, Civil Defense and Emergency Act), persons engaged in civil defense functions, including volunteers whose services are accepted by any authorized person, cannot be held civilly liable for the death of or injury to persons, or property damage, as a result of any act or omission in the course of the employment of duties, except in cases of willful misconduct.

**Other Entitlements**

Per HRS 128-16, all persons including volunteers whose services have been accepted by authorized persons, shall, while engaged in the performance of duty be deemed state employees or employees of a political subdivision, and shall have the powers, duties, rights, and privileges of such in the performance of their duties. State Workers Compensation Insurance protection is also extended to volunteers responding to SCD requests for services.

**Evaluation Procedures**

Evaluations Teams

Once deployed to the county, teams will be formed by the County representatives of the department charged in its Emergency Operations Plan with the responsibility for building safety evaluations. Teams will typically have 2 to 3 members and may include volunteers from multiple organizations. However, each team should include at least one county representative familiar with the local community and one individual trained in the ATC procedures.

Building Safety Evaluations

A list of structures to be evaluated should be issued by the county by 9 am each day. Evaluations shall be performed per the procedures outlined in ATC-20 (earthquakes) or ATC-45 (wind storms and floods). The procedures include three levels of evaluation.

<b>Evaluation</b>	<b>Description</b>
Rapid	Intended to quickly designate the apparently safe and unsafe structures. Structures may also be designated for a Detailed Evaluation if further examination or discovery of conditions is necessary.
Detailed	Consists of a more thorough visual examination of the structure, inside and out. Shall be performed on essential facilities or when recommended by the Rapid Evaluation team. Preferably performed by a structural engineer. Detailed Evaluations may result in a change of the status designated by a previous Rapid Evaluation.
Engineering	Performed by structural engineers retained by the building owner; the most thorough evaluation technique that may also include retrofits to enable a restoration of safety necessary for occupancy.

## Response Procedures for Activating and Deploying Volunteer Building Safety Evaluation Engineers

The County is responsible for performing the Rapid Evaluation (and/or Detailed Evaluation, where required). In each type of evaluation, buildings are posted with one of three ATC placards:

Placard	Description
Green	Inspected; considered safe for lawful occupancy
Yellow	Restricted use; entry, and occupancy are restricted
Red	Unsafe; do not enter or occupy

The green *Inspected* placard is used when observed damage, if any, does not appear to be an imminent risk. The yellow *Restricted Use* placard allows occupancy restrictions, such as for area or time duration, to be stated when considered appropriate for safety. The yellow placard and the red *Unsafe* placard require that the owner, with appropriate professional assistance, *mitigate* the observed hazards to the satisfaction of the jurisdiction *prior* to full re-occupancy.

### Reporting

SEAOH has developed a multi-hazard Building Safety Evaluation Form applicable to earthquakes and hurricanes, complying with the ATC procedures. Evaluation teams should complete the double-sided ***Building Evaluation Safety Assessment Form*** shown in Appendix B. A copy of the completed form should be made for SEAOH to assist with its overall reconnaissance efforts. The original form should be maintained in County records. Digital photographs should be taken of each inspected building to document the damage or failure mechanism.

### Public Information Handouts

Evaluation teams may be among the first County representatives that the building occupants encounter after the disaster. Thus, in addition to performing the building evaluation, the team should be prepared to direct them to other assistance, using informational handouts supplied by the County. This information should include an explanation of the placard status, the necessary follow-up actions by the owners of yellow and red-tagged buildings, and contact information for further assistance.

### Geocoding and GIS

Address and TMK/GPS coordinates of each building evaluated should be used to create a database of damaged structures for periodic GIS mapping and spatial analysis. This data and map products should be shared with the Structural Engineers Association of Hawaii.

### After Action Report

Volunteers from SEAOH will be contributing to a report on the deployment that may include summary observations and recommendations for improvements of the ATC procedures and the mitigation of damage. Information gathered from the deployment shall be used for these purposes, and may include photographs. For private homes, the photographs may be identified in reports by area or district, but the report shall not include specific addresses or the names of owners.

## **Appendix A**

Structural Engineers Association of Hawaii (SEAoH)  
List of Volunteers



# STRUCTURAL ENGINEERS ASSOCIATION OF HAWAII

## EMERGENCY RESPONSE

Last Name	First Name	Status	Emergency Response?	Work Number	Home Phone	Cell Phone	Past Experience	ATC-20 Trained?	ATC-45 Trained?
1. BALDRIDGE	STEVEN M.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. BRANDT	JONATHAN	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. CARDEN	LYLE	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. CHEN	LONG	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5. CHOCK	GARY Y.K.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6. CHU	RANDY N.T.	MEMBER	<input checked="" type="checkbox"/>	The SEA OH Disaster Response Committee Chair Maintains this list including phone numbers.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. DAR	ATHER R.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8. DOI	DEAN A.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. EMOTO	JASON H.	MEMBER	<input checked="" type="checkbox"/>	The list including phone numbers is available to all member of the committee. Contact the DRC Chair for access.			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10. ERICKSON	BRANDON	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. ERICKSON	AARON	ALLIED MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
12. FANG	YEN WEN	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. FOLKS	TIMOTHY S.	AFFILIATE MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. FRONTERA	FERNANDO	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. FUNG	BENNETT Y.K.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
16. GEORGE	WILLIAM C.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Last Name	First Name	Status	Emergency Response?	Work Number	Home Phone	Cell Phone	Past Experience	ATC-20 Trained?	ATC-45 Trained?
17. GOSHI	TIMOTHY G.S.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. HANYU	JEFFREY M.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19. HEYWOOD	STEVEN C.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
20. HOO	KIMBERLY	ALLIED MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
21. HUMAY	FRANCIS K.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. HUNNEMANN	MICHAEL P.	ASSOCIATE MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23. IDE	BRIAN M.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
24. ISHII-NAKAYAMA	BEVERLY K.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
25. IWAMOTO	RON E.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
26. KANE III	PAUL K.	AFFILIATE MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. KASAMOTO	MICHAEL K.	LIFE MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28. KIKUYAMA	ALEX	ALLIED MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. KUNIYOSHI	SUSAN Y.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
30. LAU	CLIFFORD Y.L.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
31. LAU	HOWARD K.C.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. LI	XIANPING	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
33. LISTAVICH	SCOT T.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
34. LOTT	BRIAN S.	ALLIED MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
35. MANDAWAWE, JR.	JOSE	ASSOCIATE MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Last Name	First Name	Status	Emergency Response?	Work Number	Home Phone	Cell Phone	Past Experience	ATC-20 Trained?	ATC-45 Trained?
36. MESTANZA	MARVIN W.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. MIYASATO	GLENN H.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
38. MIZUE	EVAN A.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
39. MURAI	JONATHAN D.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
40. MURAR	KEVIN M.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. MURDOCK	BRIAN C.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
42. NAMGUNG	JONG	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. OKUNA	ETHAN W.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
44. OKUNAGA	GRANT J.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
45. POWELSON	NATHAN	ALLIED MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
46. ROBERTSON	IAN N.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
47. SAKANASHI	CRAIG H.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. SARWAR	AFAQ	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
49. SENGUPTA	DIPANKAR	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. SHIMOKAWA	MYLES Y.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. SUEHIRO	MARSHALL K.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. SUZUKI	GARY S.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
53. SUZUKI	THEODORE J.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. TAKUSHI	LEE T.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
55. TANIMURA	THOMAS Y.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56. UECHI	SARIE M.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Last Name	First Name	Status	Emergency Response?	Work Number	Home Phone	Cell Phone	Past Experience	ATC-20 Trained?	ATC-45 Trained?
57. WAITE	TIMOTHY J.	ASSOCIATE MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
58. WALFISH	JAMES B.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
59. WONG	WILLIAM R.	ALLIED MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60. YAMAMOTO	RODNEY T.	LIFE MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61. YAMASHIRO	ROY K.	LIFE MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62. YAMASHIRO	COREY	ALLIED MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
63. YANABU	ROBERT K.	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
64. YANG	JINGHAI	MEMBER	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
65. YONESHIGE	KARYNN M.	MEMBER	<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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## **Appendix B**

Building Evaluation Safety Assessment Form  
(Double-Sided)

# Building Evaluation Safety Assessment Form

## Inspection

Inspector(s) ID: \_\_\_\_\_  
Affiliation: \_\_\_\_\_  
Inspection: \_\_\_\_\_ Initial \_\_\_\_\_ Re-inspection  
Previous Placard: \_\_\_\_\_ Red \_\_\_\_\_ Yellow \_\_\_\_\_ Red  
(if re-inspection)

Inspection Date: \_\_\_\_\_  
Inspection Time: \_\_\_\_\_ AM \_\_\_\_\_ PM  
Areas Inspected: \_\_\_\_\_ Exterior Only  
\_\_\_\_\_ Exterior & Interior  
\_\_\_\_\_ Crawlspace or Foundation

## Building Description

Building Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Contact Phone #: \_\_\_\_\_

Building Address: \_\_\_\_\_  
Building GPS: \_\_\_\_\_  
Building TMK: \_\_\_\_\_

### Type of Construction (check all that apply):

\_\_\_\_\_ Wood Frame: \_\_\_\_\_ Post & Pier \_\_\_\_\_ Slab-On-Grade  
\_\_\_\_\_ Cold-Formed Steel Frame  
\_\_\_\_\_ Hybrid Wood/Steel Frame  
\_\_\_\_\_ Structural Steel Frame  
\_\_\_\_\_ Concrete: \_\_\_\_\_ Cast-in-Place \_\_\_\_\_ Tilt-Up \_\_\_\_\_ Precast  
\_\_\_\_\_ Masonry: \_\_\_\_\_ Reinforced \_\_\_\_\_ Unreinforced  
\_\_\_\_\_ Other: \_\_\_\_\_

### Lateral Force Resisting System (check all that apply):

\_\_\_\_\_ Light-Framed Walls with Shear Panels:  
\_\_\_\_\_ Single-Wall \_\_\_\_\_ Double-Wall  
\_\_\_\_\_ Light-Framed Bearing Walls with Tension Only Bracing  
\_\_\_\_\_ Shear Walls: \_\_\_\_\_ Concrete \_\_\_\_\_ Masonry  
\_\_\_\_\_ Braced Frame: \_\_\_\_\_ Steel \_\_\_\_\_ Concrete \_\_\_\_\_ Timber  
\_\_\_\_\_ Moment Frame: \_\_\_\_\_ Concrete \_\_\_\_\_ Masonry \_\_\_\_\_ Steel  
\_\_\_\_\_ Other: \_\_\_\_\_

# of stories above ground: \_\_\_\_\_ below ground: \_\_\_\_\_  
Approx. "Footprint Area": \_\_\_\_\_ square feet.  
Estimated year/era of construction: \_\_\_\_\_  
Previously retrofitted? \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Unsure

Lot Topography/Slope:  
\_\_\_\_\_ Flat to Mild (up to 1:12 slope)  
\_\_\_\_\_ Mild to Moderate  
\_\_\_\_\_ Moderate to Severe (greater than 4:12 slope)

### Primary

### Occupancy:

\_\_\_\_\_ Single-Family Dwelling  
\_\_\_\_\_ Multi-Unit Residential  
\_\_\_\_\_ Estimated total # of residential units \_\_\_\_\_  
\_\_\_\_\_ Estimated # of inhabitable units \_\_\_\_\_  
\_\_\_\_\_ Public Assembly  
\_\_\_\_\_ Emergency Services  
\_\_\_\_\_ Commercial

\_\_\_\_\_ Offices  
\_\_\_\_\_ Industrial  
\_\_\_\_\_ Government  
\_\_\_\_\_ Historic  
\_\_\_\_\_ School  
\_\_\_\_\_ Other: \_\_\_\_\_

## Posting

Choose a posting based on the evaluation and team judgment. *Severe* conditions endangering the overall building are grounds for an Unsafe posting. Localized *Severe* and overall *Moderate* conditions may allow a Restricted Use posting. Post INSPECTED placard at main entrance. Post RESTRICTED USE and UNSAFE placards at all entrances.

\_\_\_\_\_ INSPECTED (Green placard) \_\_\_\_\_ RESTRICTED USE (Yellow placard) \_\_\_\_\_ UNSAFE (Red placard)

Record any use and entry restrictions exactly as written on placard: \_\_\_\_\_

## Further Actions

\_\_\_\_\_ Barricades needed in the following areas: \_\_\_\_\_  
\_\_\_\_\_ Detailed Evaluation Recommended: \_\_\_\_\_ Structural \_\_\_\_\_ Geotechnical \_\_\_\_\_ Other: \_\_\_\_\_  
\_\_\_\_\_ Other recommendations: \_\_\_\_\_

**Evaluation** Evaluate the building for the conditions below and check the appropriate column.

A large grid of graph paper with a 1cm square grid pattern. The grid is composed of small squares, each measuring 1cm by 1cm. The grid is used for drawing and construction.