

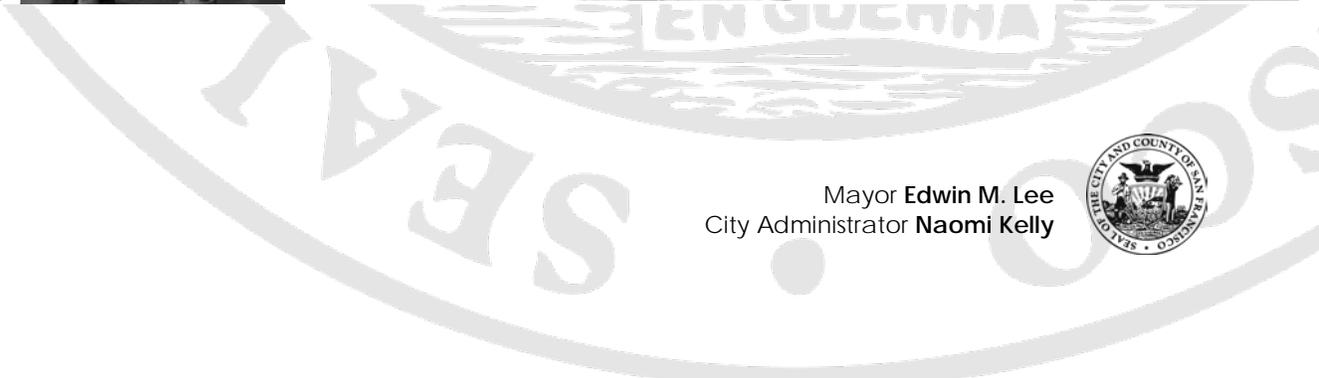


City and County of San Francisco

# Post Disaster Safety Assessment Guide

Appendix to the ESF #3: Public Works and Engineering  
Annex to the San Francisco Emergency Response Plan

June 2016



Mayor Edwin M. Lee  
City Administrator Naomi Kelly





# Post-Disaster Safety Assessment Guide

Appendix to ESF #3: Public Works and Engineering  
Annex of the San Francisco Emergency Response Plan

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# Post-Disaster Safety Assessment Guide

## Background

The earthquake vulnerability of the San Francisco Bay Area is well known. According to the third Uniform California Earthquake Rupture Forecast ([UCERF3](#)), there is 72% probability of a magnitude 6.7 or greater earthquake in the San Francisco region before 2044. The probability rises to 95% for the Northern California region. An earthquake of this magnitude will result in widespread and catastrophic damage.

San Francisco’s Emergency Response Plan ([ERP](#)) places post-disaster safety assessments as a responsibility in the Emergency Support Function #3 annex ([ESF #3](#)). ESF#3: Public Works and Engineering responsibilities also include implementing strategies for debris clearance and removal; repairing municipal facilities, roads and structures, and supporting restoration and reconstruction of utilities (water, power, fuel, communications, and sanitation services).

## Purpose

The purpose of this document is to provide guidance to CCSF agencies on 1) the organization and coordination of post-disaster safety and structural assessment, with the goal of maximizing resources by conducting and reporting assessments in an effective and efficient manner, and 2) coordinating the City’s response to a request for mutual aid safety assessment evaluators.

This Post Disaster Safety Assessment Guide is an appendix to the Appendix to ESF #3: Public Works and Engineering Annex of the San Francisco Emergency Response Plan. It is the work product of the Infrastructure Branch Working Group (IBWG).

The guide will be reviewed and revised every three years or as necessary to reflect changes in the city’s organization, other plans or from lessons learned from exercises and plan activations. Any department with relevant safety assessment responsibilities may initiate the revision process. The revision process will require the support of departments with relevant safety assessment responsibilities.

This is the first revision since its original adoption February 2013.

Revision adopted June 2016 by:

Agency	Recommend by Department Disaster Preparedness Coordinator	Approved By Department Head
City Administrator	Nick Majeski	Naomi Kelly
Controller	Alec Tune	Ben Rosenfield
Department of Building Inspection	Ron Tom	Tom Hui
Department of Emergency Management	Amy Ramirez	Anne Kronenberg
Department of Public Health	Naveena Bobba	Barbara Garcia
Department of Technology	Joseph Johns	Miguel Gamino
Human Services Agency	Ben Amyes	Trent Rhorer
Mayor’s Office on Disability	Jim Whipple	Arfaraz Khambatta
Municipal Transportation Agency	Scarlett Lam	Ed Reiskin
Port of San Francisco	Sidonie Sansom	
Real Estate Division	Marta Bayol	John Updike
Recreation and Parks Department	Katie Petrucione	Phil Ginsburg
San Francisco Public Library	Roberto Lombardi	Luis Herrera
San Francisco Public Works	Cynthia Chono	Mohammed Nuru
San Francisco Public Utilities Commission	Mary Ellen Carroll	Harlan L. Kelly Jr.
San Francisco Unified School District	Walter Patrick	Richard Carranza
Treasure Island Development Authority	Peter Summerville	Robert Beck

# Section 1: Operational Concept

## Introduction

In the event of a disaster such as a catastrophic earthquake, it is likely that numerous facilities, privately owned as well as city owned and leased, may require a safety inspection before re-occupying.

The City and County of San Francisco has adopted California State [Safety Assessment Program](#) (SAP) protocols for conducting safety assessments of facilities and infrastructure. The State's Safety Assessment Program was developed to help local governments after a disaster by providing mutual aid architects, civil engineers, and building inspectors to help rapidly complete the surge of safety evaluations made necessary by the event. The SAP successfully deployed volunteer and mutual aid SAP Evaluators after major earthquakes like, Loma Preita (1989), Big Bear – Landers (1992), Northridge (1994), Napa (2000), San Simeon (2003), and South Napa (2014). The SAP also provided support to Louisiana and Mississippi in the aftermath of Hurricane Katrina.

The Safety Assessment Program is managed by the California's Governor's Office of Emergency Services (Cal OES) in cooperation with professional organizations. The goal of the State Safety Assessment Program is to help local governments perform accurate facility safety assessments as quickly and safely as possible. The SAP also provides guidance for the assessment of infrastructure, such as treatment plants, roadways, bridges, and pipelines. Details of the [Safety Assessment Program](#) are located on the Cal OES's website.

Safety assessments are the evaluation of facilities following a disaster in order to determine the condition of buildings and infrastructure for use and occupancy. These assessments are intended to identify to categorize facilities as to their safety. Facilities are placed in one of three (3) categories and a placard is posted on the facility to clearly express to the building owner, occupants, and the public the safety condition of the building or facility. The three (3) categories and placards are: Green placard for INSPECTED: lawful occupancy permitted; Yellow placard for RESTRICTED: entry, occupancy, and lawful use are restricted as indicated; and Red placard for UNSAFE: do not enter or occupy (note, this is not a demolition order).

**Safety Assessment Classifications**

Placard Color	Classification	Definition
Green	INSPECTED	Lawful occupancy permitted
Yellow	RESTRICTED	Entry, occupancy, and lawful use are restricted
Red	UNSAFE	Do not enter or occupy

SAP Evaluators will NOT perform the following services:

- Provide cost estimates for buildings they have evaluated.
- Perform evaluations based on code compliance.
- Provide escort or property retrieval for owners or occupants of buildings.

Safety assessments are not damage assessments. However, safety assessment reports will be shared with the City's Emergency Operations Center (EOC) Planning Section and Finance Section, who will ensure that damage assessment information is compiled and reported.

This guide does not include instruction on how to conduct safety assessments. The purpose of this document is to provide guidance to CCSF agencies on 1) the organization and coordination of post disaster safety and structural assessment, with the goal of maximizing resources by conducting and reporting assessments in an effective and efficient manner, and 2) coordinating the City's response to a request for mutual aid safety assessment evaluators.

### A. Safety Assessment Goals

The primary goal of post disaster Safety Assessments is **to evaluate facilities for safety to get as many people as possible back into their buildings as quickly as possible**. The demands on shelters and other temporary living arrangements can be quickly reduced by the swift evaluation of structures for continued use. The by-product of the process is the identification of damaged buildings.

## B. Safety Assessment Responsibilities of Government Agencies and Organizations

Governmental entities that regulate building or lifeline construction and/or safety have safety assessment responsibilities. This falls under the role of government to provide for the health and safety of the public. It is very important after a disaster to quickly identify habitable buildings. Some buildings will be used for urgent medical care, mass shelter facilities, or emergency operations. But the majority of buildings will likely be privately owned and are often key to the economy of the affected area. So, clearing private buildings for safety will not only help free up the shelter spaces, but will also help the local economy to get back on its feet, thus adding to the overall recovery from the disaster.

The following briefly describes the government agencies involved in safety assessments on the structures within their jurisdiction.

### Buildings and Structures

Local agencies are responsible for their own facilities, all privately owned businesses, private schools, single-family residences, and multi-family residences within their jurisdiction, as well as all structures and lifeline infrastructure not specifically mentioned below. Section 2 outlines CCSF agency's responsibilities in more detail.

California Department of General Services, Division of the State Architect (DSA) is responsible for the oversight of construction of all new public schools, community colleges, and state-owned or state-leased facilities. DSA currently does not have oversight responsibility for post-disaster safety assessment of public schools but nevertheless, has had their technical staff trained in safety assessment, and stands ready to assist after a disaster. (The Safety Assessment Program is one resource available to school districts after a disaster. School districts may alternatively set up a Memorandum of Understanding with local building departments for post-disaster safety assessment, or may choose to contract with private engineering or architectural firms to have their safety assessments done.) The San Francisco Unified School District is responsible for conducting and or coordinating safety assessment of San Francisco public schools.

California Office of Statewide Health Planning and Development (OSHPD) has oversight for all acute-care hospitals and skilled nursing facilities. OSHPD has also had many of their staff trained in safety assessment.

California Office of the State Fire Marshal (OSFM) is the building inspection department for state facilities, including prisons. OSFM is responsible for the fire and life safety elements of all state-owned or state-leased facilities as well as non-ambulatory care facilities. (Fire elements mean fire suppression systems, alarms, detectors, etc. Life safety elements refer to exits, corridors, stairways, etc.)

California Department of Housing and Community Development (HCD) is responsible for the inspection of over 80% of the parks for mobile homes and manufactured homes in California.

Federal government is responsible for all federal buildings and installations, no matter where the facilities are located. These safety assessments are usually performed by the U.S. Army Corps of Engineers for the area in which the disaster event occurs.

### Lifelines

Local governments are frequently responsible for all of the non-federal aid roads and bridges, along with storm drains, sewers, etc., which are under the jurisdiction of the particular local government.

Special Utility Districts are responsible for the pipelines and/or transmission lines that they install and/or maintain.

California Department of Water Resources, Flood Operations is responsible for all levees, canals, and state water projects.

California Department of Water Resources, Division of Dam Safety is responsible for all jurisdictional dams, except those owned or operated by the U.S. Army Corps of Engineers, or the U.S. Bureau of Reclamation. (A jurisdictional dam must be taller than six feet and hold back more than 50 acre-feet of water, or be taller than 25 feet and hold back more than 15 acre-feet of water.

California Department of Transportation (Caltrans) is responsible for State and Federal highways in California, along with buildings and other infrastructure essential to the performance of their work.

In summary, the process of evaluating or inspecting facilities will not be limited to local San Francisco Departments and Agencies. Many other agencies will be in the post-disaster arena performing such evaluations under their authority. Being prepared for the possibility of many inspectors in the affected area can help reduce or eliminate redundant efforts and lead to a sharing of information and cooperation between the agencies involved.

## **C. Evaluation Types**

Assessments are generally performed by teams of two or more SAP Evaluators, depending on the type and difficulty of the assessment. In addition to SAP Evaluators, through the City and County of San Francisco Department of Building Inspection's (DBI) Building Occupancy Resumption Program (BORP), private and city engineers may perform evaluations and place placards on specific facilities.

### **1. Building Occupancy Resumption Program (BORP)**

BORP is a program developed by the City and County of San Francisco, Department of Building Inspection, with the cooperation of the Structural Engineers Association of Northern California (SEAONC) and San Francisco chapters of the Building Owners and Managers Association (BOMA) and the American Institute of Architects (AIA). The program allows San Francisco building owners to pre-certify private post-earthquake inspection of their buildings by qualified engineers and specialty contractors upon DBI acceptance of a written inspection program.

The Building Occupancy Resumption Program consists of three basic phases. The first phase is the assessment of the building and preparation of a BORP program, including a building-specific post-earthquake inspection plan. The second phase includes annual updates, renewal activities, and the maintenance portion of the work. The third phase is the post-disaster implementation of the program. Some city facilities have completed the application process and are also BORP certified. [BORP details are on the DBI website, http://sfdbi.org/why-borp-owners.](http://sfdbi.org/why-borp-owners)

### **2. Windshield Survey**

Various departments with field personnel plan to conduct windshield surveys of the immediate area around their facilities as well as conduct a quick "drive-through" of the City to document and report from vehicles the status of streets, utilities, major external building damage, damaged or blocked roads, unattended fires, and medical emergencies. Details for these procedures are contained in separate departmental plans.

The information from the Windshield Surveys will be collected by each Department's Operations Center (DOC) and reported to the City Emergency Operations Center (EOC).

### **3. Rapid Evaluations**

Buildings are rapidly assessed for safety, taking about 10 to 20 minutes per building. Typically a team of two building inspectors or a building inspector and an engineer or architect will assess the building. The purpose of this type of evaluation is to quickly identify and placard the obviously safe or unsafe structures. If access to the interior is available and the building is safe enough, the building can be entered for a quick walk-through to see if there are any potentially serious or interior falling hazards inside the building.

#### 4. Detailed Evaluation

Buildings are assessed more thoroughly by conducting a more extensive investigation into the structural systems. Detailed evaluations can take anywhere from one to four hours depending on the size of the building. Typically a team includes a building official, a structural and/or civil engineer, an architect, and other specialists as needed to address the specific situation. This level of evaluation is used most often for buildings where the safety of the building is controversial, or is otherwise not clear.

A Geotechnical Evaluation and a wide range of infrastructure evaluations are all Detailed Evaluations.

#### 5. Engineering Evaluation

Buildings are inspected carefully, using all available data to find the cause of the damage and how to repair it. These inspections are engineering investigations performed by professional architects and/or engineers retained by the building owner. Engineering evaluations can take anywhere from one full day to a week or more, depending on the size of the building and the type of construction. This level of evaluation is not performed by the Safety Assessment Program and is beyond the scope of this guide.

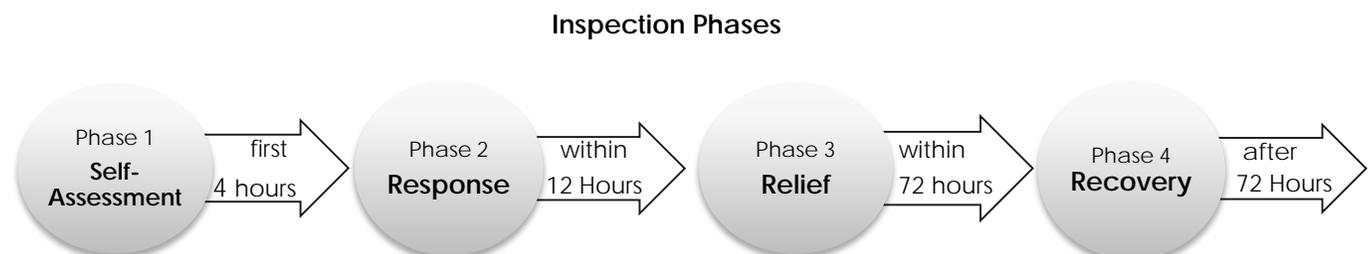
Rapid evaluations may be done first to identify the obviously safe and unsafe structures, and then detailed evaluations done on the structures where the conditions are not so obvious. It is up to the building owner to retain an engineer or architect to perform the engineering evaluation and design the repairs. Details on the evaluation procedures are contained in the State's [Safety Assessment Program Evaluator Student Manual](#) located on [Cal OES's website](#).

It is possible however, that only one level of evaluations could be performed. For example, in a smaller disaster event only detailed evaluations may be necessary. In larger disasters, such as the 1994 Northridge Earthquake, only rapid evaluations were done. With the RESTRICTED USE placard as a routine part of the rapid evaluation process, there is less of a need to do two levels of evaluations on the same building. The building owner may retain the services of an engineer or architect to begin the repair process when a questionable structure has the correct limitations or restrictions placed on its use or occupancy.

### D. Inspection Phases

Post-disaster safety inspections are organized into four inspection phases to establish guidelines for organizing and facilitating safety inspections in an orderly and efficient manner while providing reasonable timeframes. Facilities will be grouped into one of the four inspection phases. See Appendix C: Inspection Phases and Types of Facilities for types of facilities that may be grouped in each phase. As facilities and infrastructure identified in each phase have all been accounted for, facilities identified in the next phase will be assessed.

Adjustments and revisions to facilities listed in each phase may take place due to specific conditions, the nature and scope of the event as well as priorities established by the EOC's Action Plan as described in the City's Emergency Response Plan. Adjustment and revisions may be made as changes take place during the response, relief, or recovery phases of the emergency event.



## **Phase 1: Self-Assessment**

Immediately after a significant event, facility management will initiate a self-assessment and determine the operational status of a facility (building and/or infrastructure, such as tunnels, bridges, rails) and request a safety assessment if needed. Initial status report should be made to the City's Emergency Operations Center, through the affected Department's Operations Center within the first four (4) hours after an event.

Requests for safety assessment from City departments and agencies are made to the Infrastructure Branch in the City's Emergency Operation Center (EOC), through their Department Operations Center (DOC). If the department does not have a DOC or the building has multiple departments, then requests for safety assessment are made through the building's manager.

Building Occupancy Resumption Program (BORP) members, including the City BORP buildings, will evaluate their pre-assigned facilities.

## **Phase 2: Response**

Facilities and infrastructure critical to emergency response activities or to the coordination of the City's response are evaluated within 12 hours or as soon as possible after the disaster. Examples of critical facilities or infrastructure are:

- The facility supports emergency communications, dispatch, or utility/infrastructure control;
- The facility is needed immediately (in the first 24 hours) for disaster response activities.
- Critical infrastructure: priority roads and structures; water, wastewater, power, communication, and transportation systems.

## **Phase 3: Relief**

Facilities needed to support relief efforts are evaluated within 72 hours or as soon as possible after the disaster. Additionally, facilities used for temporary shelters, delivery of public health services or storage and distribution of essential supplies fall into this category. Examples are as follows:

- The facility is required for the delivery of public health and safety services, (medical, law enforcement, fire suppression, rescue operations, etc.);
- The facility is designated for shelter and feeding activities, social services, animal care, stress relief, care and sheltering of emergency workers, volunteer management, and other relief and recovery activities;
- The facility is needed to house or store essential materials and supplies, such as medical supplies, food, water, or other items essential to response and recovery efforts;
- The facility houses people who cannot be moved, will pose a threat to the community, or will be at risk or vulnerable if moved.

## **Phase 4: Recovery**

Facilities needed to support recovery activities are inspected after 72 hours or as soon as possible after the disaster. Examples of such facilities are:

- The facility is needed by a business or City department or agency to restore its regular programs or services;
- The facility is needed to house residents;
- The facility supports economic recovery.

## Section 2: Role of CCSF Agencies and Requesting Assistance

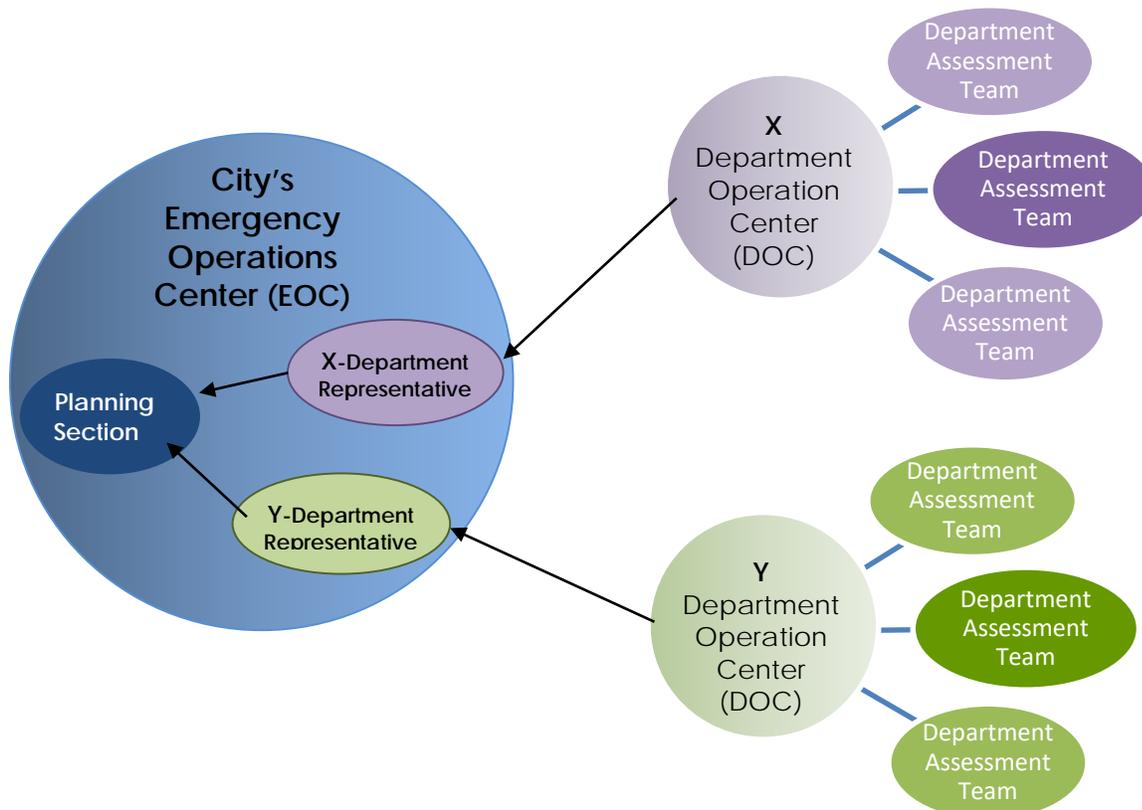
Following a major disaster, each department will likely activate their Department Operation Center. Each department with its own engineering workforce, such as the SF Public Utilities Commission (SFPUC), San Francisco Public Works, Port of San Francisco (SF Port), Municipal Transportation Agency (MTA), and the San Francisco International Airport (SFO), will perform inspections of their department’s facilities and infrastructure using their own trained personnel.

Each department will report the status of their facilities and infrastructure (rails, pipeline, overhead lines, etc.) to their DOC. Department Operations Centers will report the status of their facilities and infrastructure to their representative at the City’s EOC, who will provide the information to the EOC Planning Section. The EOC Planning Section will provide a citywide infrastructure status report. The Infrastructure Branch will inspect and report on facilities and infrastructure directly inspected by the Infrastructure Branch. For details see Appendix D: Post Disaster Safety Assessment Response and Reporting Flow Chart.

If a department needs assistance to perform safety inspection, the request should be made through their DOC to their representative or contact at the City’s EOC, who will then request assistance from the EOC Infrastructure Branch. The Infrastructure Branch will locate additional evaluators/inspectors from other Departments or make a Mutual Aid request to the State Safety Assessment Program (SAP). For details see Appendix D: Post Disaster Safety Assessment Response and Reporting Flow Chart.

The public should make requests for safety inspection to 311. 311 will route all requests to the Department of Building Inspection (DBI).

**Department Reporting and Requesting Assistance Process**



## Section 3: Assessment Teams Mobilization and Reporting Process

San Francisco has adopted the State Safety Assessment Program as the primary method and protocols for conducting post disaster safety assessments. Departments are encouraged to familiarize facility managers and stationery engineers with SAP protocols and to certify staff as State Safety Assessment Program evaluators and coordinators.

### A. Request to evaluate buildings

All requests for a safety assessment will be centralized at DBI's DOC. If needed, DBI will request assistance from other departments through the EOC Infrastructure Branch or state mutual aid system.

### B. Team Mobilization and Deputies

Evaluators reporting to DBI DOC will be deputized, briefed, orientated, assigned to a team, and dispatched to inspect facilities by DBI. Teams will be dispatched until all requested facilities have been inspected and placarded or barricaded and/or demolished. As inspections of facilities are taking place, the priority list may be revised based on field observation or other documented information.

Departments with assessments teams have developed and maintained their own department team mobilization and deployment plans to inspect their own facilities and infrastructure. These teams, as representatives of the facility owner may establish protocols to allow a facility to remain open or closed. However, to post the City's official placards, a member of the team must be deputized by DBI.

### C. Deployment of Assessment Teams

After a major disaster, the EOC Infrastructure Branch will request that the EOC Planning Section produce a variety of information on the impact of the event such as, United States Geological Survey (USGS) maps and / or the "ShakeCast" report. The information provided will assist the EOC Infrastructure Branch and Department DOC's in identifying targeted areas to dispatch safety evaluation teams.

BORP teams, including City BORP teams that have been pre-deputized will self-deploy when appropriate or as instructed by a BORP Team Leader. Deployment details are contained in a separate guide.

Assessment Teams will be deployed based on priorities established by the EOC's Action Plan, and as they are grouped into one of the four inspection phases. After facilities and infrastructure in each phase have all been accounted for, facilities in the next phase will be assessed. Adjustments and revisions to facilities listed in each phases may take place due to specific conditions and the nature and scope of the event. Adjustments and revisions may also be made as changes take place during the response, relief, or recovery phases of the emergency event.

### D. Pre-assigned Teams

Departments are encouraged to train and pre-assign safety assessment teams to key facilities and critical infrastructure.

### E. Reporting

Teams that are dispatched by DBI will submit assessment reports to DBI. Teams dispatched by department DOC's will submit their reports to their DOC. Department DOCs will report the status of their assessments to their representative at the City's EOC, who will provide the information to the EOC Planning Section. The EOC Planning Section will provide a citywide status report. This report will also be used by the EOC Finance & Administration Section to inform city-wide initial damage estimates.

## Section 4: Mutual Aid Response Coordination

This section describes how the City and County of San Francisco will coordinate a City response to provide mutual aid support when other cities or counties in California or the Nation are affected by a disaster and are in need of post-disaster Safety Assessment Evaluators.

San Francisco has over 150 trained and certified SAP evaluators including architects, engineers, and building inspectors who work at the various City departments, such as the Department of Building Inspection (DBI), San Francisco Public Works (SFPW), San Francisco Public Utilities Commission (SFPUC), the Mayor's Office on Disability (MOD), the Port, and the Airport (SFO). This section establishes a framework to organize the City's multi-departmental resources to identify mutual aid capabilities, coordinate dispatch, track resource deployment, and institute cost recovery.

### Event Occurs that does not affect San Francisco

#### A. Phase 1: Anticipate the Need

**Within 24 hours** after a disaster event, DEM will convene a conference call with Department heads from departments with SAP Evaluators.

After a disaster event in California where San Francisco is not directly affected, the Department of Emergency Management (DEM) will convene a meeting at the Emergency Operations Center (EOC) or initiate a conference call with the Department Heads (or their designated disaster response coordinators) from DBI, SFPW, SFPUC, MOD, PORT, and SFO. The purpose of this meeting or call is to share information about the extent of damage, and to make a preliminary determination of what actions should be taken in anticipation that mutual aid resources will be needed in the near future.

#### Select a City-Wide SAP Coordinator

The Department heads will identify a departmental SAP mutual aid coordinator for their department and select a City SAP Mutual Aid Coordinator for the entire City of San Francisco. Depending on the nature and scale of the event, and departmental capacity at the time, the Coordinator would most likely come from either DBI or SFPW, although other departments could fill this role as well.

The City SAP Mutual Aid Coordinator will make contact with Cal OES, Structural Engineers of California (SEOC), and the California Building Officials (CALBO) to offer a willingness to assist and to establish a single point of contact for coordination efforts.

At the same time, the departmental SAP mutual aid coordinators will begin surveying their department SAP resources. It is strongly recommended that before an event has even occurred, the department would have already pre-identified a task force or strike team, comprised of staff members who are specially trained and prepared and ready to respond. If however this is not the case, then the departmental SAP mutual aid coordinator will be tasked with assembling an ad hoc list of staff who are qualified and capable of responding.

The departmental SAP mutual aid coordinator is also responsible for meeting with their Department Head and Financial Officers in order to determine the amount of staff and other resources potentially available for deployment.

DEM will brief the Mayor's Office on this multi-departmental effort. It is assumed the Mayor has already made contact with his or her peers in the affected areas and offered assistance.

## **B. Phase 2: Preliminary Coordination**

**Within 48 hours** after the disaster event, DEM will convene a conference call with the City SAP Mutual Aid Coordinator, the departmental SAP mutual aid coordinators, and the Controller's Office. The purpose of this meeting is to share information about the amount of mutual aid resources City-wide that are potentially available, to draft a preliminary call out list, and to discuss the logistics and cost recovery documentation required.

After the meeting, the City SAP Mutual Aid Coordinator will make contact with Cal OES, SEOC, and CALBO to provide a briefing about available resources, and to get a more refined understanding of how many SAP inspectors will be required, when, and where they should report (if this information is known).

At the same time, the departmental SAP coordinators shall put their first shift on call with the instruction to prepare to deploy.

The City SAP Mutual Aid Coordinator will identify equipment and supply needs, vehicles, and housing, and will disseminate information about required time keeping and documentation.

## **C. Phase 3: Deployment and Documentation**

**Within 72 hours or more** after the disaster event, when the requesting jurisdiction is ready to receive mutual aid, the City SAP Mutual Aid Coordinator shall give the departmental SAP coordinators the instructions to deploy the first shift. The departmental SAP coordinators will be responsible for documenting resources including the names and number of staff deployed, and the duration of their deployment. This information will be reported to the SAP Mutual Aid Coordinator, who in turn will be responsible for reporting the totals to DEM and the Controller's Office. DEM will maintain the City-wide resource list and will be responsible for keeping the Mayor briefed as assets are deployed.

DEM will schedule regular briefings as necessary to maintain situational awareness, monitor burn rate, and respond to the Controller's Office requests for documentation for reimbursement from the requesting disaster-affected jurisdiction.

## Section 5: Summary

The purpose of this document is to provide guidance to CCSF agencies on 1) the organization and coordination of post disaster safety and structural assessment with the goal of maximizing resources by conducting and reporting assessments in an effective and efficient manner, and 2) coordinating the City's response to a request for mutual aid safety assessment evaluators.

This document is an appendix to the City's Emergency Support Function (ESF) #3: Public Works and Engineering Annex of the San Francisco Emergency Response Plan (ERP). These documents can be obtained from the [Department of Emergency Management's website](#) .

This Post Disaster Safety Assessment Guide adopts the State Safety Assessment Program protocols and process, which provides details of how to conduct assessments; defines five (5) basic evaluation types: windshield surveys, rapid evaluations, detailed evaluations, engineering evaluations, and the City's BORP (Building Occupancy Resumption Program) evaluations; establishes and groups facility types into one of four (4) inspection phases: self-assessment, response, relief, and recovery; clarifies and confirms the flow of information for reporting and requesting safety assessments; and encourages each department to develop specific post damage assessment protocols for their own facilities and/or infrastructure.

The guide, a product of the Infrastructure Branch Working Group, will be reviewed and revised every three years or as necessary to reflect changes in the city's organization, other plans or from lessons learned from real events, exercises and plan activations. Any department with relevant safety assessment responsibilities may initiate the revision process. The revision process will require the support of departments with relevant safety assessment responsibilities.

## Acknowledgements

The Infrastructure Branch Working Group gratefully acknowledges the assistance provided by the California Safety Assessment Program staff and wishes to thank the department and agency representatives who contributed or took the time to review and comment on this Guide, especially those as noted in the beginning of the Guide. We would like to extend a special thanks to Carla Johnson, Amy Ramirez, Edie Schaffer, Peter Summerville, Mary Ellen Carroll, Matt Green, Walter Patrick, Nick Majeski, Raymond Lui, Scarlett Lam, Sherban Duncan, Ted Aranas, Andy Maimoni, Eddy Ching and Cynthia Chono who facilitated launching and getting this Guide done.

# Appendixes

## Appendix A: Glossary of Terms

**ATC- Applied Technology Council** is a nonprofit research organization based in California, which studies the effects of [natural hazards](#) on the built environment and how to mitigate these effects, particularly [earthquakes](#). It was founded through the efforts of the [Structural Engineers Association of California](#) in 1973. It does not develop [building codes](#), but does develop manuals which summarize information for engineers, and this information is sometimes used in codes, standards, and specifications.

**ATC-20 – INSPECTED – Habitable, minor or no damage** – This green placard is used to identify facilities that have been inspected but in which no serious damage has been found. These structures are in a condition that allows them to be lawfully reoccupied; however, repairs may be necessary, such as those to stucco or drywall. There are no use restrictions on “green-tagged” buildings as far as the disaster damage is concerned, and the facility may be used in the same manner as it was before the disaster.

**ATC-20 – RESTRICTED USE – Damage which represents some degree of threat to occupants** – The yellow Restricted Use placard is intended for facilities that have been damaged, but the extent of damage does not totally preclude using or occupying parts of the structure. It can mean that the building could be used under certain restrictions, or parts of a structure could be occupied. It can also mean that the facility can be only briefly entered to remove important possessions. The use of a “yellow-tagged” Restricted Use placard will minimize the number of buildings which will require additional safety assessments because restrictions can be placed on the use and occupancy of the structure until the owner can hire an engineer or architect to develop the necessary repair program.

**ATC-20 – UNSAFE – Not habitable, significant threat to life safety** – The red ATC-20 Unsafe placard is used on those facilities with the most serious damage. Typically, these are structures that represent a threat to the life safety of persons occupying them. It is important to note that this category does not mean that the facility so tagged must be demolished. This placard carries the statement, “THIS IS NOT A DEMOLITION ORDER” to clarify that the facility simply is not safe enough to occupy. In the vast majority of cases, structures posted unsafe can be repaired to a safe and usable condition. This designation also includes buildings with a hazardous material spill present, or that are situated in a “collapse zone,” thus threatened by another structure that is unstable. It also includes those buildings that are threatened by unstable ground, whether related to the building foundation or related to a landslide threat from a higher elevation.

**Damage assessment** – The cost estimating process that local and state agencies must perform to determine the type and quantity of disaster-related damage, and to repair those damages. This work is usually associated with disaster assistance applications from the jurisdiction to the State, or through the State to FEMA. SAP evaluators are not to do damage assessment, but may collect information that assists local governments to do so.

**Damage Assessment, Preliminary (PDA)** is a joint assessment used to determine the magnitude and impact of an event's damage. A FEMA/State team will usually visit local applicants and view their damage first-hand to assess the scope of damage and estimate repair costs. The State uses the results of the PDA to determine if the situation is beyond the combined capabilities of the State and local resources and to verify the need for supplemental Federal assistance. The PDA also identifies any unmet needs that may require immediate attention.

## **Disaster Declaration Process**

**Proclamation of Local Emergency** – San Francisco Charter Section 3.100 and Chapter 7 of the San Francisco Administrative Code empower the Mayor to proclaim the existence of a local emergency (subject to ratification by the Board of Supervisors) when the City and County is affected or threatened by a natural disaster or other emergency posing conditions of extreme peril to life or property. A Proclamation of a Local Emergency is a prerequisite for requesting a Governor's Proclamation of a State of Emergency and/or a Presidential Declaration of an Emergency or Major Disaster, which is needed to enable state and federal assistance.

**Governor's Proclamation of a State of Emergency** – Provides the Governor with powers authorized by the California Emergency Services Act; authorizes state financial relief for emergency actions and restoration of public facilities and infrastructure; and is a prerequisite when requesting federal assistance.

**Presidential Declaration** - When an event has occurred in which the State has determined the damage is beyond the effective response capabilities of the State and local governments and requires federal assistance, the governor must send a request letter to the President, directed through the FEMA Regional Director of the appropriate FEMA region. The President then makes the decision whether or not to declare a major disaster or emergency.

After a presidential declaration has been made, FEMA will designate the area eligible for assistance and announce the types of assistance available. FEMA provides supplemental assistance for State and local government recovery expenses, and the Federal share will always be at least 75 percent of the eligible costs.

**Disaster, Major-** as defined by the Stafford Act, is: "any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance... to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby." 42 U.S. Code § 5122(2).

**Departmental Operations Center (DOC)** - serves as a department's emergency response coordinating body. A DOC's major functions include: directly supporting an incident and incident commander; prioritizing and managing the departments resources; and servers as a point of contact for the Incident Commander and for the City's Emergency Operations Center (EOC).

**Emergency** - as defined by the Robert T. Stafford Disaster Relief and Emergency Assistance Act, is: "any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States." 42 U.S. Code § 5122(1).

Emergency assistance differs from disaster assistance. It is intended to avert a catastrophe through the support of emergency actions. It does not include any restoration or permanent repairs. An emergency does not have to be a natural disaster. For example, it may be a water system contamination that cannot be handled by local and State resources. *FEMA's State Disaster Management Course IS 208.a.*

**Emergency Support Functions (ESF)**- ESFs are outlined in the NRF, which details the missions, policies, structures, and responsibilities of Federal agencies for coordinating resource and programmatic support to States, tribes, and other Federal agencies or jurisdictions and entities during Incidents of National Significance. Local ESFs are organized in accordance with the Federal System. The City and County of San Francisco has ESF annexes to its Emergency Response Plan. The ESF annexes describe in more detail response actions specific to each corresponding ESF.

**Emergency Response Plan (ERP)** – The City and County of San Francisco’s Emergency Response Plan addresses the roles and responsibilities of CCSF during all-hazards emergency response. Specifically, the ERP identifies and describes CCSFs interaction with regional, State, and Federal entities, the role of the San Francisco Emergency Operations Center (EOC), and the coordination that occurs between the EOC and City departments and agencies. The Emergency Support Function (ESF) annexes to this plan describe in more detail response actions specific to each corresponding ESF. In addition to this plan, every department within CCSF maintains a departmental emergency plan, which shall be consistent with the provisions of the ERP.

**EOC – Emergency Operations Center** – A local government facility that provides support for all field operations, and through which resources are obtained and distributed to various field operations. Policy decisions related to the disaster are also developed at the EOC and dispersed from there.

**ICS - Incident Command System** – A very successful management approach that is used during emergency response operations. ICS is an organizational structure that encourages communication vertically through the layers of the organization as well as laterally between sections in the same layer. ICS also incorporates incident action planning into operations, allowing for the definition of measurable goals to keep the operation coordinated.

**Infrastructure Branch** – is a branch in the City’s Emergency Operations Center (EOC) Operations Section. The City’s Emergency Response Plan identifies the Infrastructure Branch responsibilities as coordinating Emergency Support Functions (ESF) #3: Public Works and Engineering and #12: Water and Utilities.

**Mutual Aid** – The process used to facilitate assistance to disaster-stricken communities without the use of the customary written agreements normally entered into by agencies with joint powers. Mutual aid is based on the concept of “neighbor helping neighbor” in time of need without the expectation of compensation, although there are cases after the first 12 hours of aid when compensation of responding may be sought. Mutual aid assistance can include any type of resource from other jurisdictions, the State, and even the private sector. The State of California Master Mutual Aid Agreement governs California’s mutual aid system.

**Safety assessment** – The process by which facilities of all occupancies and infrastructure lifelines are evaluated for their safety for continued use or disuse. This process is under the direction of local governments through their Building and Safety or Public Works departments. During safety assessment, the cost estimating process known as “damage assessment” is not done.

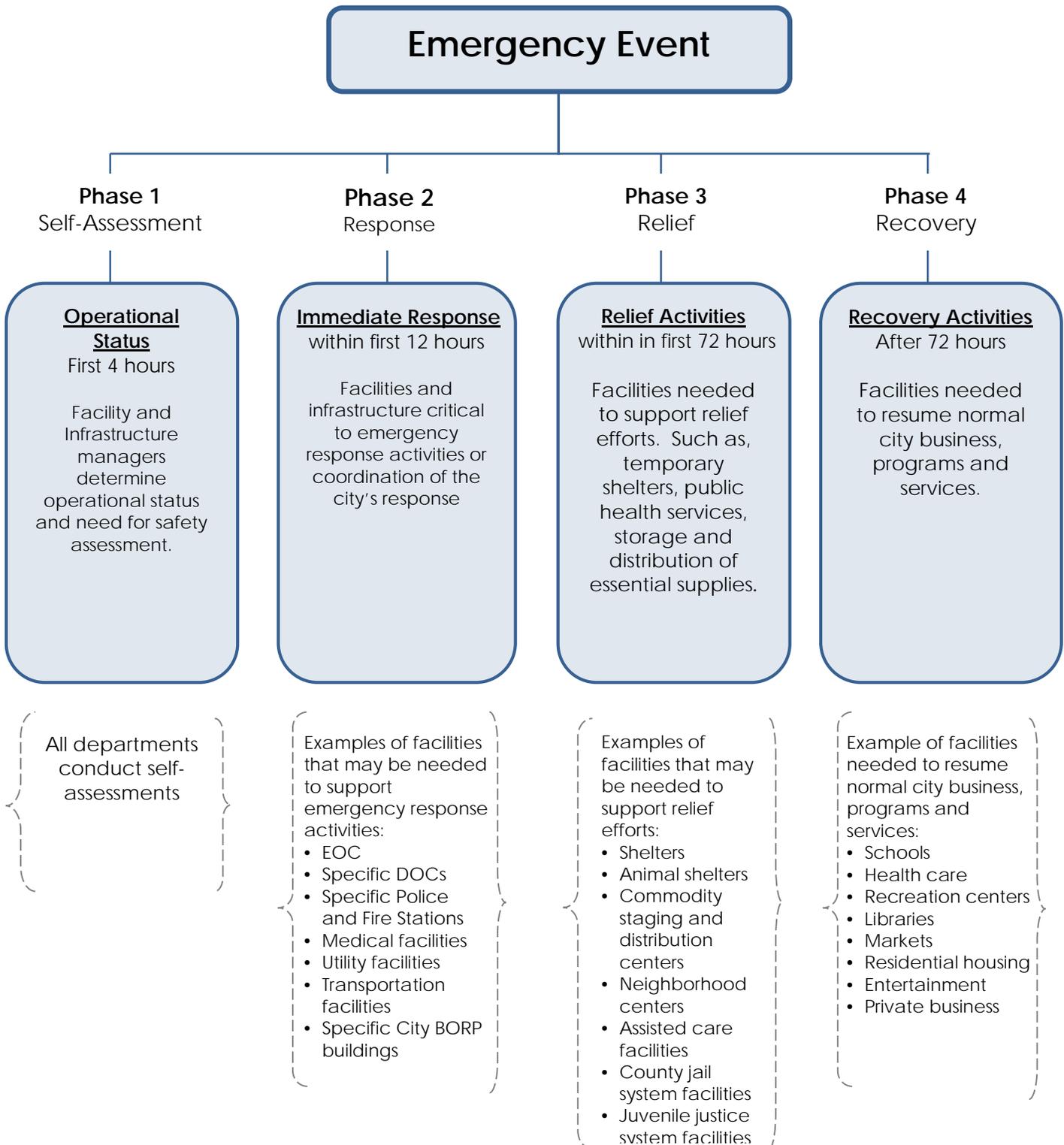
**Safety Assessment Program (SAP)** – The Safety Assessment Program is managed by Cal OES with cooperation from professional organizations. The Safety Assessment Program utilizes volunteers and mutual aid resources to provide professional engineers, architects, and certified building inspectors to assist local governments in safety evaluation of their built environment in an aftermath of a disaster. SAP produces two resources, SAP Evaluators, described above, and SAP Coordinators, who are local government representatives that coordinate the program. Cal OES issues registration ID cards to all SAP Evaluators who have successfully completed the program requirements.

**Self-Assessment CCSF Form** - Immediately after a significant event, San Francisco facility management will determine the operational status of their facility (building and/or infrastructure, such as tunnels, bridges, rails) and if safety assessments are needed. San Francisco has developed a Self-Assessment form (appendix G) to assist facility management in determining if a safety assessment by a certified Safety Assessment Program (SAP) Evaluator should be requested. Operational status reports and safety assessment requests should be made to the City’s Emergency Operations Center, through the affected Department’s Operations Centers (DOC).

## Appendix B: Abbreviations

BORP	Building Occupancy Resumption Program
DBI	Department of Building Inspection
DEM	Department of Emergency Management
DOC	Department Operations Center
DPH	Department of Public Health
DT	Department of Technology
EAP	EOC Action Plan
EOC	Emergency Operations Center
HSA	Human Services Agency
IAP	Incident Action Plan
MOD	Mayor's Office on Disability
MTA	Municipal Transportation Agency
RED	Real Estate Division
RPD	Recreation and Parks Department
SAP	Safety Assessment Program
SFGH	San Francisco General Hospital
SFPW	San Francisco Public Works
SFO	San Francisco International Airport
SFPUC	San Francisco Public Utilities Commission
SFUSD	San Francisco Unified School District
TIDA	Treasure Island Development Authority

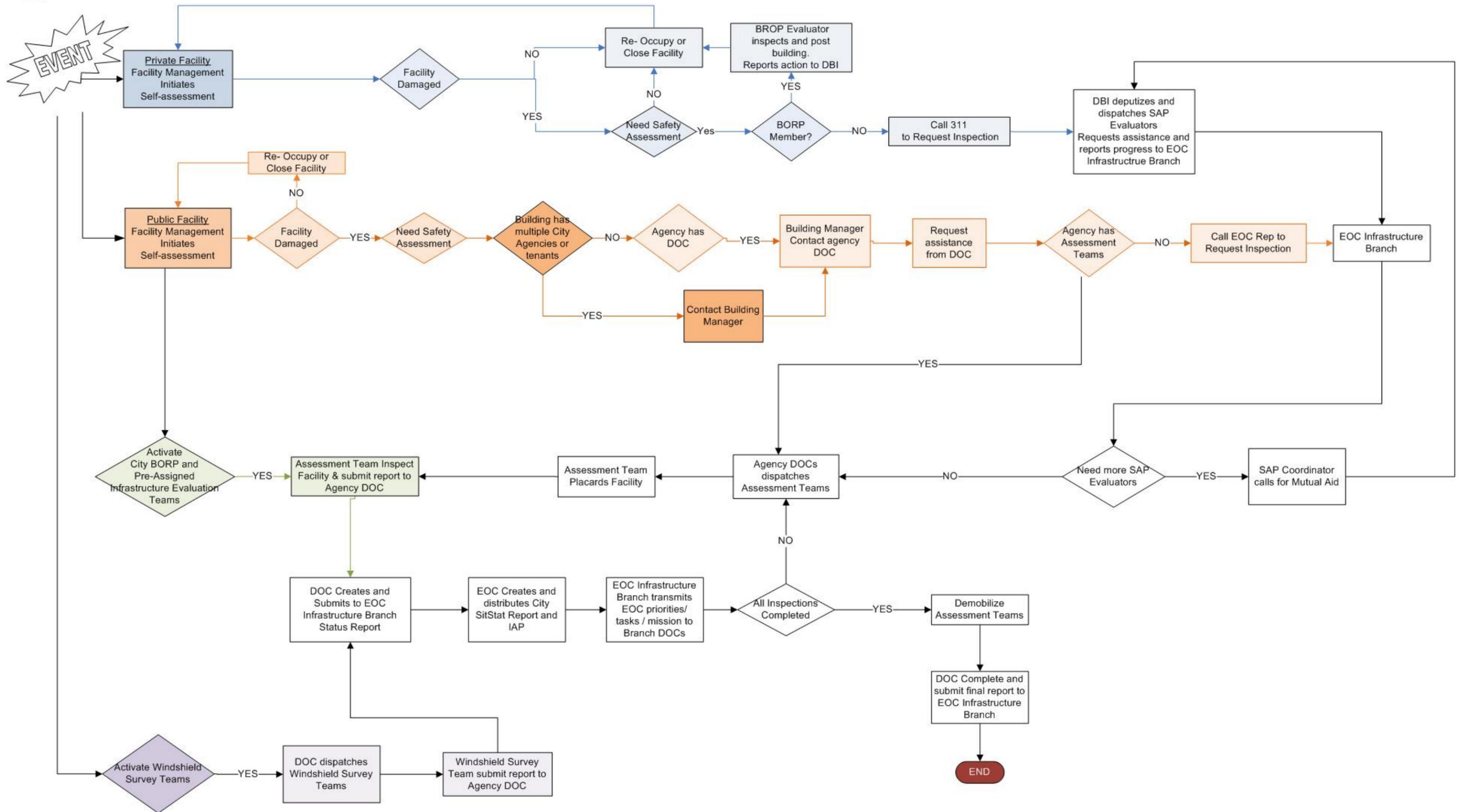
## Appendix C: Inspection Phases and Type of Facilities



NOTE: As stated in Section 1, specific buildings and facilities will be placed in the appropriate inspection phase based on the emergency use of the facility. The above is an example of the types of uses



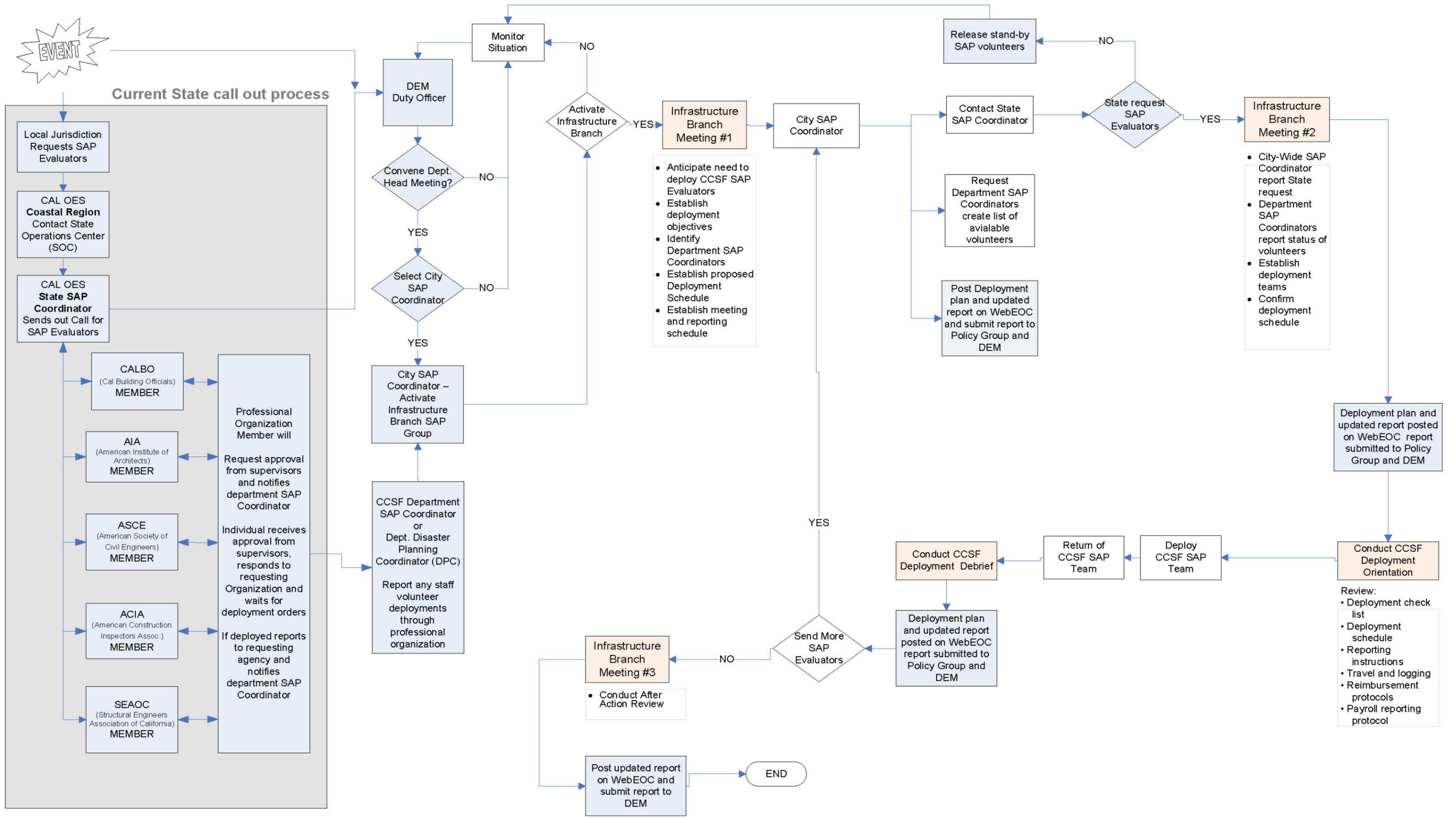
**CCSF Post Disaster Self-Assessment and SAP Evaluator Request Flow Chart**  
Draft – September 2015



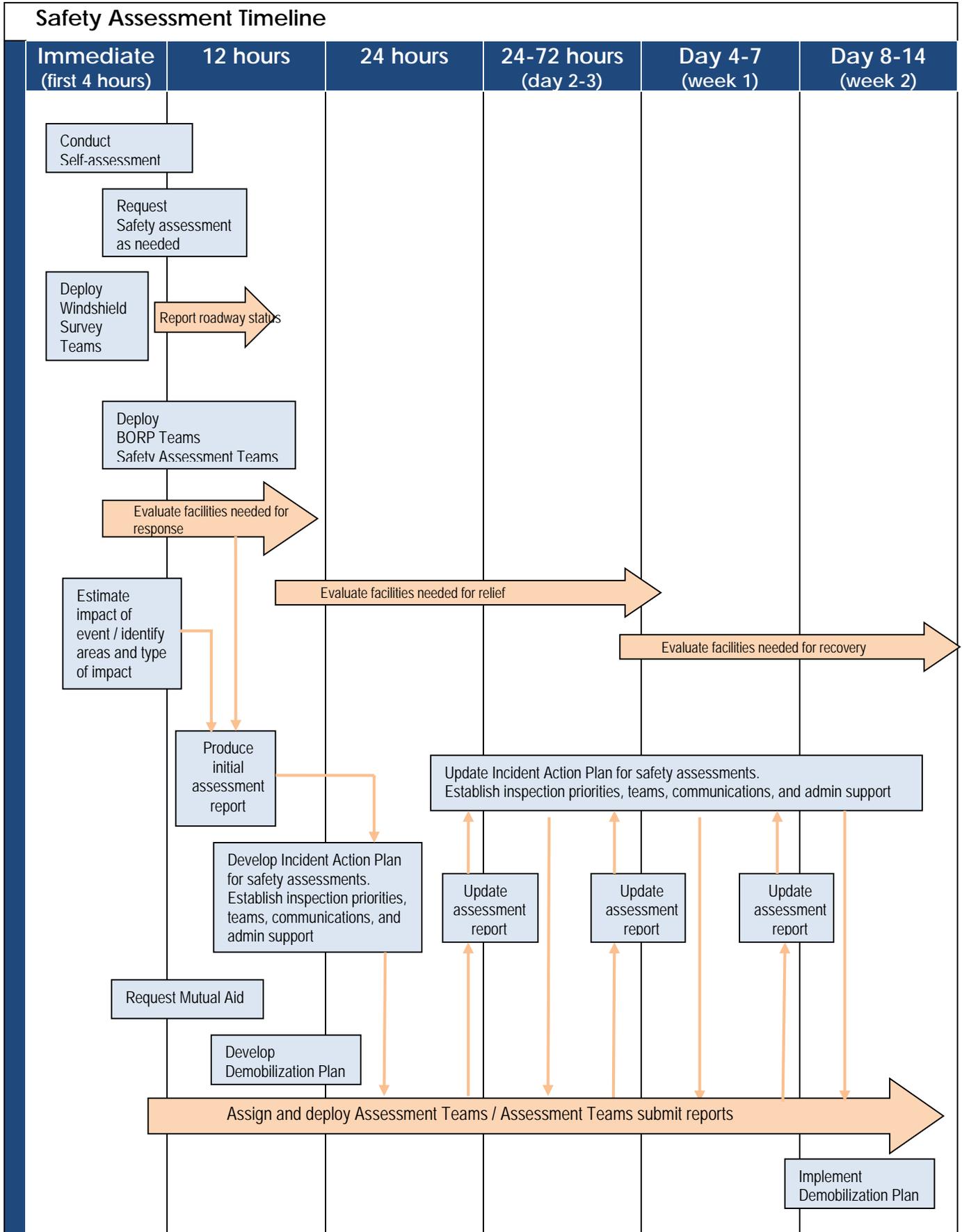


# CCSF Responding to Mutual Aid Request for Safety Assessment Program Evaluators

December 2015



## Appendix F: Post Disaster Safety Assessment Timeline



## Appendix G: CCSF Facility Self-Assessment Form



# CCSF Post Disaster Facility Self-Assessment Form

<b>Inspection By:</b>				
Department: _____	Division: _____			
Evaluator Name(s): _____	Position/ Class: _____			
Assessment date: _____	Assessment Time: _____ AM PM			
<b>Building Description</b>		<b>Type of Construction</b> (circle appropriate type)		
Building name: _____		Wood frame	Concrete shear wall	
Address: _____		Steel frame	Unreinforced masonry	
_____		Tilt-up concrete	Reinforced masonry	
Building contact/phone: _____		Concrete frame	Other: _____	
Number of stories above ground: _____ below ground: _____		<b>Primary Occupancy</b> (circle appropriate occupancy)		
Approx. "Footprint area " (square feet): _____		Dwelling	Commercial	Government
Number of residential units: _____		Other residential	Offices	Historic
Number of residential units not habitable: _____		Public assembly	Industrial	School
		Emergency services	Other: _____	
<b>Evaluation</b>				
Investigate the building for the conditions below and check the appropriate column. There is room on the second page for a sketch.				
	None/ Minor	Moderate	Severe	Comments
<b>Overall hazards:</b>				
Collapse or partial collapse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Building or story leaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Structural hazards:</b>				
Foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Roofs, floors (vertical loads)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Columns, pilasters, corbels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Diaphragms, horizontal bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Walls, vertical bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Precast connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Nonstructural hazards:</b>				
Parapets, ornamentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cladding, glazing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Ceilings, light fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Interior walls, partitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stairs, exits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Electric, gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Geotechnical hazards:</b>				
Slope failure, debris	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Ground movement, fissures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>General Comments:</b> _____				
_____				

**Continue on page 2**

Revised: February 2013



## Appendix H: Safety Assessment Forms



Department of Building Inspection  
 1660 Mission Street, San Francisco, CA 94103  
 (415) 558-6088

### ATC-20 Rapid Evaluation Safety Assessment Form

**Inspection**

Inspector ID: \_\_\_\_\_ Inspection date and time: \_\_\_\_\_  AM  PM  
 Affiliation: \_\_\_\_\_ Areas inspected:  Exterior only  Exterior and interior

**Building Description**

Building name: \_\_\_\_\_ Address: \_\_\_\_\_  
 Building contact/phone: \_\_\_\_\_  
 Number of stories above ground: \_\_\_\_\_ below ground: \_\_\_\_\_  
 Approx. "Footprint area" (square feet): \_\_\_\_\_  
 Number of residential units: \_\_\_\_\_  
 Number of residential units not habitable: \_\_\_\_\_

**Type of Construction**

Wood frame  Concrete shear wall  
 Steel frame  Unreinforced masonry  
 Tilt-up concrete  Reinforced masonry  
 Concrete frame  Other: \_\_\_\_\_

**Primary Occupancy**

Dwelling  Commercial  Government  
 Other residential  Offices  Historic  
 Public assembly  Industrial  School  
 Emergency services  Other: \_\_\_\_\_

**Evaluation**

Investigate the building for the conditions below and check the appropriate column.

Observed Conditions:	Minor/None	Moderate	Severe	Estimated Building Damage (excluding contents)
Collapse, partial collapse, or building off foundation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> None
Building or story leaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 0 - 1%
Racking damage to walls, other structural damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 1 - 10%
Chimney, parapet, or other falling hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 10 - 30%
Ground slope movement or cracking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 30 - 60%
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 60 - 100%
				<input type="checkbox"/> 100%

Comments: \_\_\_\_\_

**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** Check the boxes below only if further actions are needed.

Barricades needed in the following areas: \_\_\_\_\_

\_\_\_\_\_

Detailed Evaluation recommended:  Structural  Geotechnical  Other: \_\_\_\_\_

Other recommendations: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_



Department of Building Inspection  
 1660 Mission Street, San Francisco, CA 94103  
 (415) 558-6088

## ATC-20 Detailed Evaluation Safety Assessment Form

<b>Inspection</b> Inspector ID: _____ Affiliation: _____ Inspection date and time: _____ <input type="checkbox"/> AM <input type="checkbox"/> PM	<b>Final Posting</b> from page 2 <input type="checkbox"/> Inspected <input type="checkbox"/> Restricted Use <input type="checkbox"/> Unsafe
-----------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Building Description</b> Building name: _____ Address: _____ Building contact/phone: _____ Number of stories above ground: ____ below ground: ____ Approx. "Footprint area" (square feet): _____ Number of residential units: _____ Number of residential units not habitable: _____	<b>Type of Construction</b> <input type="checkbox"/> Wood frame <input type="checkbox"/> Concrete shear wall <input type="checkbox"/> Steel frame <input type="checkbox"/> Unreinforced masonry <input type="checkbox"/> Tilt-up concrete <input type="checkbox"/> Reinforced masonry <input type="checkbox"/> Concrete frame <input type="checkbox"/> Other: _____  <b>Primary Occupancy</b> <input type="checkbox"/> Dwelling <input type="checkbox"/> Commercial <input type="checkbox"/> Government <input type="checkbox"/> Other residential <input type="checkbox"/> Offices <input type="checkbox"/> Historic <input type="checkbox"/> Public assembly <input type="checkbox"/> Industrial <input type="checkbox"/> School <input type="checkbox"/> Emergency services <input type="checkbox"/> Other: _____
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Evaluation**  
 Investigate the building for the conditions below and check the appropriate column. There is room on the second page for a sketch.

	Minor/None	Moderate	Severe	Comments
<b>Overall hazards:</b>				
Collapse or partial collapse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Building or story leaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Structural hazards:</b>				
Foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Roofs, floors (vertical loads)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Columns, pilasters, corbels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Diaphragms, horizontal bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Walls, vertical bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Precast connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Nonstructural hazards:</b>				
Parapets, ornamentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cladding, glazing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Ceilings, light fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Interior walls, partitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stairs, exits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Electric, gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Geotechnical hazards:</b>				
Slope failure, debris	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Ground movement, fissures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>General Comments:</b> _____				

Continue on page 2

Building name: \_\_\_\_\_ Inspector ID: \_\_\_\_\_

**Sketch (optional)**

Provide a sketch of the building or damaged portions. Indicate damage points.

**Estimated Building Damage**

If requested by the jurisdiction, estimate building damage (repair cost ÷ replacement cost, excluding contents).

- None
- 0-1%
- 1-10%
- 10-30%
- 30-60%
- 60-100%
- 100%

**Posting**

If there is an existing posting from a previous evaluation, check the appropriate box.

Previous posting:  INSPECTED  RESTRICTED USE  UNSAFE Inspector ID: \_\_\_\_\_ Date: \_\_\_\_\_

If necessary, revise the posting based on the new evaluation and team judgment. *Severe* conditions endangering the overall building are grounds for an Unsafe posting. Local *Severe* and overall *Moderate* conditions may allow a Restricted Use posting. Indicate the current posting below and at the top of page one.

- INSPECTED** (Green placard)  **RESTRICTED USE** (Yellow placard)  **UNSAFE** (Red placard)

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

**Further Actions** Check the boxes below only if further actions are needed.

- Barricades needed in the following areas: \_\_\_\_\_  
 \_\_\_\_\_
- Engineering Evaluation recommended:  Structural  Geotechnical  Other: \_\_\_\_\_
- Other recommendations: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_

Facility Name _____	SAP ID #s. _____
Address _____	Other Reports _____
Co-City-Vic _____	No. Photos _____ No. Sketches _____
Mo/Day/Yr ____/____/____ Time _____ <small>use 24 hr.</small>	Ref. Dwgs. _____
Type of Disaster _____	Est. Damage % _____
	Facility Status <input type="text"/>

**SAFETY INSTRUCTIONS:** The possibility of toxic gases in confined spaces or of fuel leaks should be recognized as a potential hazard.

**CAUTION:** The primary purpose of the report is to advise of the condition of the facility for immediate continued use/occupancy. REINSPECTION OF THE FACILITY IS RECOMMENDED. AFTERSHOCKS MAY CAUSE DAMAGE THAT REQUIRES REINSPECTION. The conclusions reached by engineers who re-examine the facility later should take precedence. The assessment team will not render further advice in the event of conflict of engineering recommendations.

**A. CONDITION:**

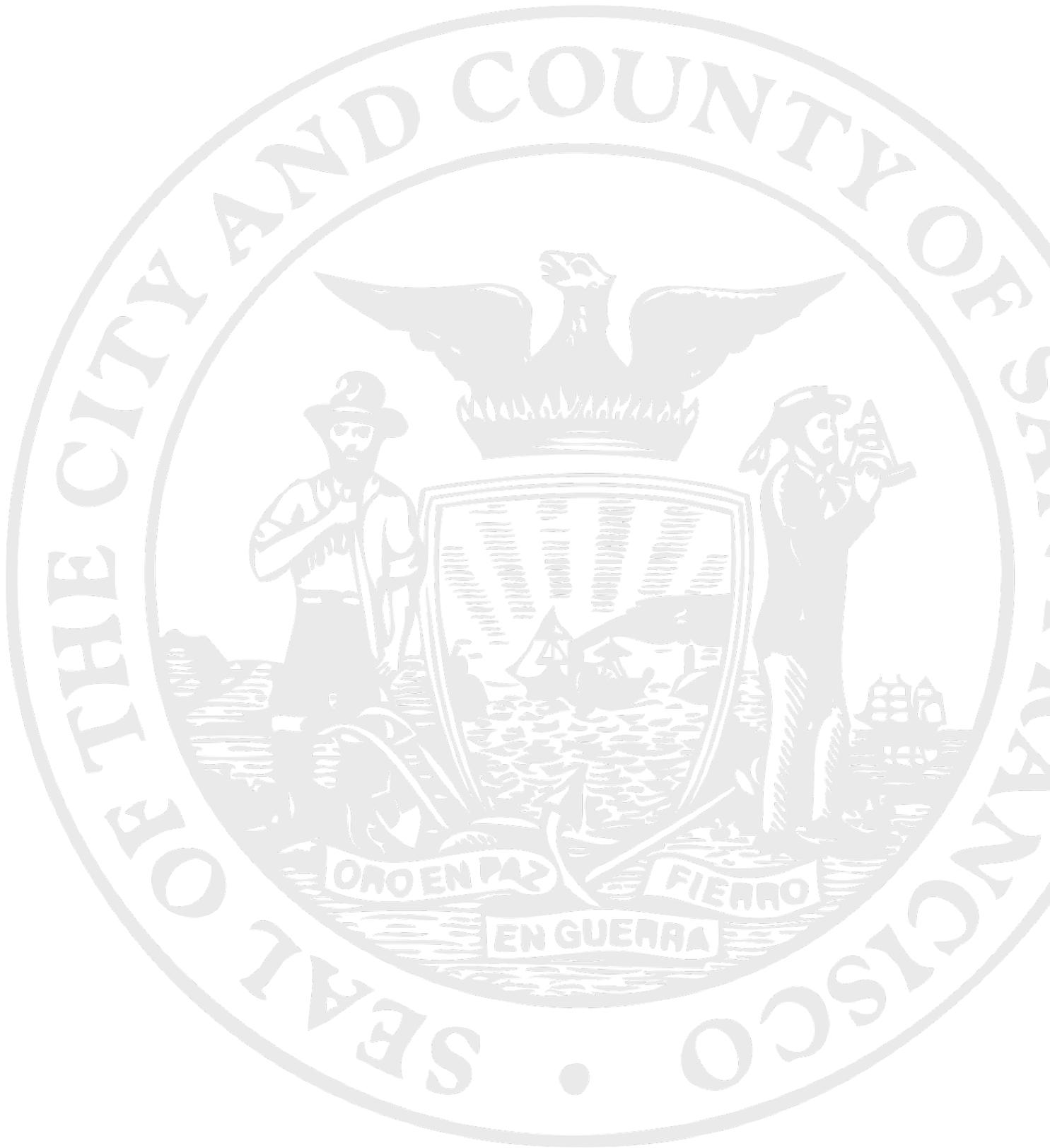
- Existing: None  Recommended: Green  Posted at this assessment: Yes   
Green  Yellow  No   
Yellow  Red   
Red

Existing barricades in position

**B. RECOMMENDATIONS**

- Monitor \_\_\_\_\_  Ok for emergency vehicles \_\_\_\_\_   
Ok for public transportation \_\_\_\_\_  Ok for private vehicles \_\_\_\_\_   
Ok for pedestrians \_\_\_\_\_  Ok for one-way traffic \_\_\_\_\_   
Ok for two-way traffic \_\_\_\_\_  Install barricades \_\_\_\_\_   
Use detour(s) \_\_\_\_\_  Aftershocks potentially dangerous to traffic \_\_\_\_\_   
Traffic in danger due to adjacent unstable/unsound structure \_\_\_\_\_

**C. COMMENTS** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



San Francisco Post Disaster Safety Assessment Guide  
Appendix to Emergency Support Function #3: Public Works and Engineering an  
Annex to the San Francisco Emergency Response Plan

All documents are posted at: [www.sfdem.org](http://www.sfdem.org)