#BuildingSafety365

On May 20, 2020, members of SEAOSC, ICC, and CALBO came together to discuss two questions about Covid-19 and how our experiences can potentially inform our preparation for and response to the next big earthquake to strike Southern California. The following is a collection of notes from attendees of the event and do not represent the position of any individual or organization. Join us next time and be part of the conversation about making our communities safer.

1 — **WHAT DID YOU AND YOUR ORGANIZATION DO WELL IN RESPONSE TO THIS CRISIS THAT COULD BE APPLIED TO A FUTURE DISASTER LIKE AN EARTHQUAKE?**

Technology:

- Provided services such as application processing, plan checks, sharing of best practices and addressing questions previously offered "in the office" from remote locations via digital tools.
- Provided inspection services remotely by finding acceptable alternatives such as photos, video, etc. to ensure safety of the inspector if they are not able to enter the building.
- Operated the Emergency Operations Centers (EOC)s remotely at least partially instead of all parties having to be in the same room.
- Incorporated new parties into the EOC such as inspectors.
- When possible, relied on existing technology adapted to serve the changing needs instead of relying on new technology solutions.
- Leveraged preparation and training beforehand. Those who worked from home previously adjusted more easily to the new pandemic normal of working from home.
- Relied on various technology tools such as Zoom, FaceTime, Blitz, Google Docs, DocuSign, Teams, Office 365, Dropbox, Bluebeam, and email.
- Accepted the use of remote payment systems for permits and other services.
- Provided the resources needed for "remote" work setups including adequately sized monitors, laptops, etc.

KEY TAKE-AWAY:

For an earthquake, our reliance on our homes as a place to work remotely might not be possible if our homes are not functional after the earthquake. Likewise, the technology tools we are using right now might not be available if the internet is lost, access speeds are slowed, or software providers lose service, etc.

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Public Engagement & Communication:

- Decreased plan review turnaround times because the plan reviewers were able to focus on the reviews and not servicing the public counter.
- Increased public interaction through the phone call centers.
- Updates to the City website including FAQs provided valuable clarity for the public and expedited the interaction with the public.

KEY TAKE-AWAY:

For an earthquake, the public will likely have even more questions for the Building Officials, Plan Reviewers and Inspectors. Increasing capacity and preparing our phone systems, website updates, etc. in advance will be key if plan review services are to be maintained during a period of very high demand following a disaster that impacts the built environment.

KEY TAKE-AWAY:

After an earthquake, how we communicate and share our experiences will be challenged if critical infrastructure and our buildings are damaged or lost. Incorporating redundancy and communication tools that can survive during an earthquake will be critical if we are to adapt to the potentially unrecognizable world we will face.

The Human Experience & Process:
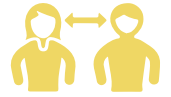
- Adapted to changing circumstances. The resilience of the citizens, building departments, builders, and designers has been impressive.
- Stayed flexible, moved quickly, and embraced expecting the unexpected. There is no perfect plan and expecting to operating the way you normally would or even how you would for other emergencies is not practical.
- Maintained constant communication with the review or inspection staff and met frequently, even if only virtually. Some teams met every day. These meetings enhanced communication and ensured consistency.

- Empowered the staff to provide their services using different formats using whatever technology or means was best for their circumstances.
- Avoided the one-size-fits-all solution. Empowered staff to self-select how to manage their risks and challenges associated with exposure to Covid-19 and fulfilling their responsibilities. This meant some staff worked from home while others completed the same services from the office.
- Successfully implemented the tools and processes derived from the lessons learned during the recent fires and other past emergency disasters.
- Shared our experiences and needs and learned from others including through ICC and CALBO. Avoided trying to reinvent things if someone else had already developed a viable approach to the challenge we were facing.

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WHAT ARE THE GAPS YOU FOUND IN YOUR PLANS THAT STILL NEED TO BE ADDRESSED FOR AN EVEN MORE EFFECTIVE RESPONSE IN THE NEXT DISASTER?

Technology:

- Heavy reliance on the personal technology set-ups of the staff. Personal cell phones, personal data plans, home offices, etc. were all relied upon. The security of home networks has become a new security risk. The legal boundary between "personal" and "work" information may have been blurred.

- Not all staff have sufficient ability to implement the tools and technology on their own requiring home visits by Information Technology staff.

- Insufficient internet or data speeds to handle the large volume of electronic communication, video meetings, etc. hampered remote staff as well as project sites and inspectors.

- Many software licenses are based on in-office use limiting access by staff when working remotely.

- Information Technology Departments were not ready to handle the large increase in concurrent demand on IT services by multiple City Departments including the Building Department.

- Some owners or builders do not have the technology resources themselves to engage the City digitally.

- The quality and quantity of the information being provided by the owners and builders has varied immensely.

- Some staff needed technology that was not available to them, and some selected technology solutions did not meet the actual needs requiring a second procurement.

- Some struggled to implement online payment options including the acceptance of credit cards.

KEY TAKE-AWAY:

Technology has been critical to the success in responding to the current circumstances but there is still room to improve. After a large earthquake, we should also expect that technology will only partially address the needs of the public and the City staff.

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Public Engagement & Communication:

- In their role to assuage fear and concerns, elected officials can overpromise or miscommunicate regarding available resources of the City prior to officials and department staff formulating and implementing effective flexible solutions.

- There can be a void of credible information, often filled with incorrect solutions or solutions that might not be possible, thus distracting from serving the public.

- There is a need for qualified trusted advisors serving as sources of reliable information to the Elected Officials.

- Plans must address the potential for the public to only partially embrace government orders regarding health and safety measures.

- The electronic communication with the public, including owners, builders, and designers, per project has increased beyond the levels seen prior to Covid–19. There are significantly more questions being asked of the reviewers and inspectors.

- The public did not fully realize that City services were still available even if the public door to the offices are closed.

- Some members of the public struggle with the lack of direct interaction with the reviewers or the inspectors.

- A virtual inspection can be significantly more difficult and time consuming than expected.

- The "counter" was not ready for social distancing and may require changes to scheduling, prioritizing projects, and to the physical space depending on the type of disaster that may occur.

> ### KEY TAKE-AWAY:
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> *After a disaster such as a large earthquake, people will turn to any and all information sources. We need to anticipate the increased interaction, have tools in place to communicate consistently, and prepare those who are communicating with the public with the best available information.*

The Human Experience & Process:

- We have not fully addressed the stresses and resulting anxiety and mental and emotional health challenges being faced by all involved. There are likely short-term and long-term consequences yet to be realized.

- Some struggle with the lack of direct personal interaction with their co-workers.

- It is very difficult to ask some to adapt to ever-changing circumstances. Different people react differently to the dynamic change that is occurring.

- There is a need to better stress test systems and processes in advance of an event instead of relying on the ability of all to adapt.

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KEY TAKE-AWAY:

While we have adapted to the new normal of Covid-19, our lives have been stressed immensely by the experience. A large earthquake will result in different sources of stress but we need to be ready and able to minimize it so we can support our communities.

- There are other people needed in the EOC who have not previously been identified, such as the inspectors.
- Processes and protocols are needed for a 100% digital review and permitting process such as protocols for digitally signing/stamping permitted drawing sets, means to document resolution of comments, naming conventions, file formats, etc.
- Traditional building department serves are interrupted when staff are re-assigned to support other functions in response to statements or decisions that may be seen as politically motivated.
- Inspectors and supervisors' questions regarding the safety of inspectors safe in the field need to be addressed in the planning and training stages; including how to properly use PPE while balancing practical conditions for the variety of conditions that can be encountered.
- Communicating through so many different means (phone, cell phone, online and video meetings, etc.) can be overwhelming for some without proper training.
- There is still a clear communication gap. Decisions are being made, rules changes, etc. by the minute by different people. Net result is that it has been very difficult to properly capture decisions and communicate them up or down to the right parties. The "telephone" game can occur with the actual decision being morphed as it is communicated.
- More planning, organization and preparedness for disasters is needed. This should include discussions on availability for equipment such as PPE for inspectors to avoid limited resources when they are most needed.

CALL FOR ACTION

"The answer to one question always leads to more questions to be answered"

- Can we handle a second disaster if it were to occur right now?
- What is the next way the public will want to get information?
- How do we convince people to adapt to the new normal who do not want to adapt?
- What waivers or releases are needed for taking photos or screen shots during virtual inspections?
- Cal OSHA has released worksite plans. Are local jurisdictions seeing widespread use of these guidelines?
- Government revenue has been significantly impacted by the response to Covid-19. How will we learn from the current experience and invest in ourselves to be better prepared for whatever comes next?

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