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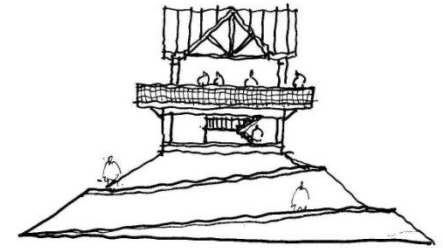
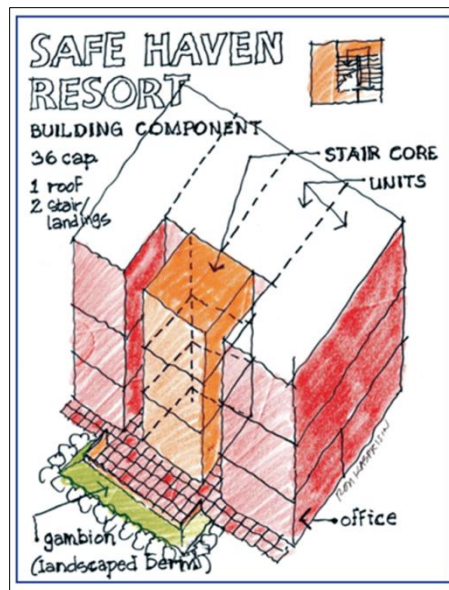
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News from Region X

Finding High Ground When There Is None

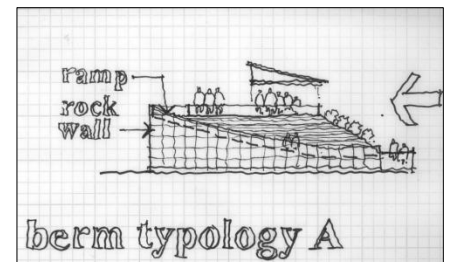
Project Safe Haven prepares communities on the Washington coast for tsunami vertical evacuation

When most of us think about tsunami evacuation, we envision those blue and white signs strategically placed along coastal roads, directing motorists to high ground. Those signs are a good method of informing people where to go in order to escape a tsunami and educating the public about the threat that we face along the Pacific coast. But what happens if the tsunami is the direct result of a local subduction zone earthquake, like the March 11, 2011 Great East Earthquake and Tsunami in Japan? This type of earthquake can destroy typical evacuation routes or make them impassable. What happens if high ground is too far away for people to get to on foot before the tsunami arrives?

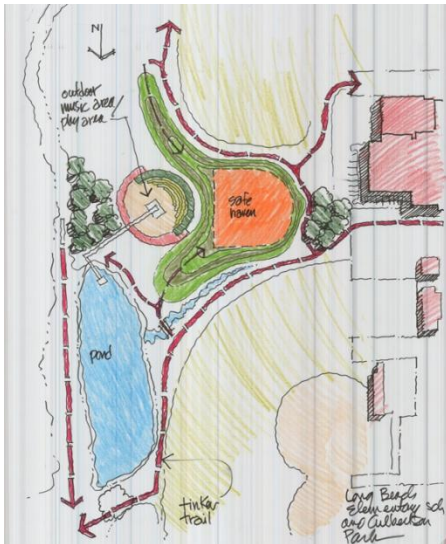


H. tower / berm ramp/stair

Using a National Tsunami Hazard Mitigation Program grant, Washington State Emergency Management tapped the University of Washington's College of Built Environments Department of Urban Design and Planning, the state Department of Natural Resources, the National Oceanic and Atmospheric Administration, the U.S. Geological Survey, FEMA, local and tribal emergency managers, and Degenkolb Engineers to address these issues through a collaborative effort known as **Project Safe Haven**.



Community members and the project team participated in a series of public meetings and design workshops aimed at helping residents develop plans for integrating tsunami vertical evacuation into their communities. This effort is based on the principles outlined in the guidance published by FEMA and NOAA in "Guidelines for Design of Structures for Vertical Evacuation from Tsunamis" (2008).



Project Safe Haven design of a baseball park with high ground for vertical evacuation

Project Safe Haven is aimed at developing viable, publically acceptable, and effective evacuation strategies through a strongly inclusive “top down” approach - with local community members at the top and various subject matter experts present to help the community navigate the long-range planning process for new evacuation strategies that include reinforced berms,

buildings, and towers. Throughout this entire project, feedback from the public has been overwhelmingly positive. Residents of communities like Long Beach and Ocean Shores, Washington, have been extraordinarily receptive to the concepts of vertical evacuation and each community meeting has been exceptionally productive. Many residents expressed the feeling that this new evacuation strategy gave them a sense of hope - the feeling that there was something practical that they could do instead of just accepting the risk with a sense of despair. It is just this kind of public excitement and buy-in that makes great projects happen as well as helps save lives. To learn more, visit www.facebook.com/projectsafehaven.

A Time to Remember A Time to Prepare

September is National Preparedness Month

FEMA’s Ready Campaign, in partnership with Citizen Corps and the Ad Council, has launched new web tools that will make it easier for individuals and organizations throughout the nation to join the 2011 National Preparedness Month (NPM) coalition and pledge their support to help prepare their families, businesses and communities for emergencies of all kinds.

The eighth annual NPM starts this month with the slogan: "A Time to Remember. A Time to Prepare." The campaign seeks to transform awareness into action by encouraging all Americans to take the necessary steps to ensure that their homes, workplaces and communities are prepared for disasters and emergencies of all kinds.

"As we move forward with planning for this year's events and activities, we also recognize that this September marks the

ten year anniversary of the 9/11 terrorist attacks," said FEMA Administrator Craig Fugate. "By doing what we can to ensure that our communities, and our nation, are prepared to respond and recover from all types of disasters and hazards, we honor the memory of those who were lost that day."



The Ready Campaign's websites provide free emergency preparedness information and resources. Through FEMA's partnership with the Ad Council, public service announcements are also available to increase the American public's involvement in preparedness.

For more information, visit www.ready.gov or call toll free 800-BE-READY.

Levee Policy Update

The Levee Analysis and Mapping Project (LAMP) team is working to develop the new guidance on the policy change announced by FEMA Administrator Craig Fugate in March. The LAMP team is currently reviewing the comments from the Independent Scientific Body (ISB). It is hoped that the draft policy will be released for public review and comment this fall.

For information on the levee policy, contact Josha Crowley at the FEMA Region X Service Center, (425) 329-3679, josha.crowley@starr-team.com.



Pacific County vertical evacuation recommendations

- 20 facilities, including 13 berms, five towers, and two buildings
- Estimated cost: \$ 11 million
- Project areas: Long Beach, Ilwaco/Seaview, Ocean Park, Tokeland/North Cove
- Affected population: 6,300

Grays Harbor vertical evacuation recommendations

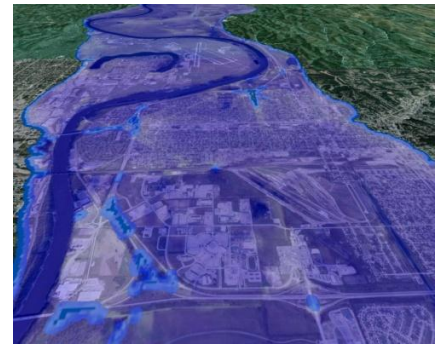
- 32 facilities, including three berms, 18 towers, eight tower/berms, and three buildings
- Estimated cost: \$40 million
- Project areas: South Beach, Ocean Shores, and Taholah
- Affected population: 18,450

Discontinuing Distribution of Orthoimagery

Beginning this month, FEMA will no longer distribute orthoimagery. These images will now be available from the United States Geological Survey (USGS). In a cooperative agreement between FEMA and the USGS, the USGS will store and distribute orthoimagery data used to create FEMA’s flood hazard mapping products. This enables FEMA to reallocate resources away from storing and maintaining these digital images. It also benefits FEMA’s stakeholders and

customers as it provides a central location where FEMA’s orthoimages can be accessed. USGS also provides data from other sources which may be more recent, higher resolution or offer other advantages over the imagery used on the FEMA maps.

To learn more about digital orthoimagery and the USGS website, visit the orthoimagery page, msc.fema.gov. To access orthoimagery at the USGS, stratus.cr.usgs.gov/viewer.



the use of HAZUS data. The Risk MAP Discovery process uses HAZUS AAL data for showing blocks that have the most risk on an average annual basis. The Flood Risk Dataset includes a Risk Assessment database, Risk MAP and a Risk Report; all of which require HAZUS data and are fully detailed in *Appendix N: Flood Risk Data Development and Analysis*.

For Hazard Mitigation plans, HAZUS is used to identify areas of impact and to estimate losses. These loss estimations are vital for communities to plan for disasters and ensure they have funding in place to respond when they occur. The areas of impact are equally important for many reasons. HAZUS takes demographic data at the census block level into account to analyze social impacts such as displaced households, shelter requirement, wage/income loss due to business losses and other indirect loss and damage functions. In the Earthquake model, HAZUS can model pipeline damage and can account for breaks or leaks in the system. Debris estimates can also be generated, which can allow a community to take the necessary measures to ensure that debris is cleaned up quickly to avoid potential contamination and other environmental concerns. With the coming addition of the tsunami model, it will further the communities’ ability to prepare and mitigate this potential hazard for many coastal areas.



What is HAZUS?

Hazards U.S. (HAZUS) is a nationally applicable standardized methodology that contains models for estimating potential losses from earthquakes, floods, and hurricanes. It runs through ArcGIS and allows for a user to estimate physical, economic and social impacts of natural disasters, displaying results through maps, reports and tables.

HAZUS is used for mitigation, recovery, preparedness and response. Planners, GIS specialists, and emergency managers use HAZUS to determine losses and the most beneficial mitigation approaches to take to minimize them. HAZUS can be used in the assessment step in the mitigation planning process, which is the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. Preparedness also aids in recovery after a natural disaster.

HAZUS and Risk MAP

One of the key elements of the Risk MAP program is improving the understanding of risk to communities. HAZUS is very useful for this since it can produce maps and reports that quickly and efficiently convey important information to community officials and residents. Some Risk MAP components explicitly require

Training Opportunities

Coastal Floodplain Management Course - Pilot 2
September 16
Lakeway Inn, Bellingham, WA
www.norfma.org

L273 – Managing Floodplain Development through the NFIP
September 19-22
Anchorage, AK
training.fema.gov/EMI

L172 HAZUS-MH for Flood
September 27-29
Bothell, WA
training.fema.gov/EMI

Overview of HAZUS Flood Loss Estimations
October 7, 10:00am – 11:00am
Online* – 1 CEC

Regulating Development in A Zones
October 21, 10:00am – 11:00am
Online* – 1 CEC

Overview of HAZUS Earthquake Loss Estimations
October 28, 10:00am – 11:00am
Online* – 1 CEC

*To register for online courses, email becca.croft@starr-team.com.

STARR Online

Please visit us at www.starr-team.com to read more about how STARR supports the Risk MAP vision.

Upcoming Events

NORFMA 2011 Conference

September 14-16
Lakeway Inn
Bellingham, WA
www.norfma.org

Oregon Planning Institute Conference

September 14-16
University of Oregon
Eugene, OR
www.oregonplanninginstitute.com

CFM Exam

September 16
Lakeway Inn
Bellingham, WA
www.floods.org
Mary.McGown@idwr.idaho.gov

CFM Exam

September 23
Anchorage, AK
www.floods.org
taunnie.boothby@alaska.gov

Suggested Reading:

The Elevation Certificate {translated}

From "The American Surveyor"

In case you missed it, there was a fantastic two-part series in The American Surveyor newsletter last month explaining some of the common mistakes made when completing Elevation Certificates. The information is targeted toward surveyors, but local officials, insurance agents, builders, and anyone who encounters this complex and often puzzling document in their work will certainly benefit from this information. No more guessing on what to put in a field or how to interpret an entry. This is one to print and keep in your top drawer for reference.

Click on the links below to download the article:

- Part One – The American Surveyor, Vol. 8, Issue 5 (August 3, 2011)
- Part Two – The American Surveyor, Vol. 8, Issue 6 (August 24, 2011)

If you have trouble with the links you can find the articles on The American Surveyor website. You can view issues in the archive and subscribe to future publications, www.amerisurv.com, then select the "Newsletter" tab.

Got a tough question? Ask us!

If you have a question about anything in this newsletter or if you have a general floodplain management, mapping, insurance or mitigation question, please let us help. You can send your question to rxnewsletter@starr-team.com. We'll research your question and help you find the answer.

Thank you for your feedback!

The response to our first newsletter has been overwhelmingly positive. Welcome to all our new subscribers!

Thank you to all who have written to provide ideas and content for this issue. **KEEP THE COMMENTS COMING!** If you have ideas, suggestions, or questions about this newsletter publication, or would like to share something with your colleagues throughout the Region, please contact the FEMA Region X Service Center, rxnewsletter@starr-team.com.

RiskMAP
Increasing Resilience Together