Draft Tiered Site-Specific Environmental Assessment

City of Edinburg Community Safe Room

Edinburg, Hidalgo County, Texas

HMGP DR-1791-TX PROJECT #333

August 2012

Federal Emergency Management Agency
Department of Homeland Security
500 C Street, SW
Washington, DC 20472

I. Background

In accordance with 44 Code of Federal Regulations (CFR) for the Federal Emergency Management Agency (FEMA), Subpart B, Agency Implementing Procedures, Part 10.9, a Programmatic Environmental Assessment (PEA) for Hazard Mitigation Safe Room Construction was prepared and a Finding of No Significant Impact (FONSI) was issued in on June 2, 2011, pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ; 40 CFR Parts 1500-1508). This Tiered Site-Specific Environmental Assessment (SEA) is being prepared in accordance the June 2011 PEA. The focus of this Tiered SEA is on those areas of concern requiring additional discussion or analysis that are beyond the scope of the PEA.

II. Purpose and Need

The City of Edinburg has applied for Hazard Mitigation Grant Program (HMGP) funding through the Texas Division of Emergency Management (TDEM) under application number HMGP-DR-1791-TX Project #333. Section 404 (HMGP) of the Robert T. Stafford Relief and Emergency Assistance Act, 42 U.S.C. § 5121 et seq., authorizes FEMA to provide funding to eligible grant applicants for cost effective activities that have the purpose of reducing or eliminating risks to life and property from hazards and their effects. Mitigation grant program regulations and guidance that implement these authorities identify various types of hazard mitigation projects or activities that meet this purpose and may be eligible for funding. These projects represent a range of activities that protect structures, the contents within those structures, and/or the lives of their occupants.

The City of Edinburg lies in the central-southern region of Hidalgo County. As of the 2000 census the city population was 55,297, and the county population was 726,604. As part of Hidalgo County, the City of Edinburg is included in the "Cover the Border Hazard Mitigation Plan." According to the plan, tropical storms and hurricanes were rated as the highest priority for the border region as a whole. The probability or likelihood of occurrence of a tropical storm or hurricane hitting the Rio Grande border region is "highly likely," and the spatial extent is "large," meaning that the hazard is expected to affect 50 percent or more of people and/or property in the region. The potential impact of a tropical storm or hurricane is "catastrophic" and may result in a high number of deaths and injuries, with more than 50 percent of property damaged or destroyed and a complete shutdown of facilities for 30 days or more. According to the plan, the City of Edinburg is at medium risk from hurricanes/tropical storms/high winds. Currently there is no safe room available to the citizens and emergency services personnel in the city or in the surrounding areas, or students, faculty, and staff at UTPA, yet the vulnerability for the area to hurricane events are high. Immediate life safety protection is needed for populations that are unable to evacuate before hurricane landfall, including emergency responders, or in the event of a quickly arising tornado.

III. Alternatives

Two project alternatives are proposed in this SEA: 1) No Action Alternative and 2) Proposed Action Alternative- Construction of a Stand-Alone Safe Room in northern Edinburg.

Under the No Action Alternative, nothing would be done to address the risk of hurricanes and tornadoes in the project area. A safe room would not be constructed. As a consequence, the residents and emergency responders in Edinburg and surrounding areas would remain at risk and would continue to be in danger when hurricanes and other quickly arising high wind events target the project area.

The Proposed Action Alternative involves the construction of a new stand-alone monolithic dome safe room north of the University of Texas Pan American (UTPA) on a vacant field located at 914 W. Van Week (Latitude: 26.308968; Longitude: -98.170804), Edinburg, Hidalgo County, Texas (see Appendix C). The safe room would consist of approximately 20,000 gross square feet and 15,863 square feet of usable space. It would provide protection for approximately 793 people (students, faculty, staff, and citizens) during a hurricane and 3,156 people during a tornado. When not in use as a safe room, the facility would serve as classrooms for the university. The project also includes installing a generator and a storm drain system and utilities at the safe room site, which will link into the existing systems. Total ground disturbance for the project is approximately 1 acre. The safe room will be built in accordance with FEMA 361: Design and Construction Guidance for Community Safe Rooms (FEMA, 2008).

IV. Environmental Impacts

Discussion of the environmental impacts associated with the No Action Alternative is included in the June 2011 PEA. This document incorporates the PEA by reference. The PEA can be found in FEMA's electronic library at *http://www.fema.gov/library/viewRecord.do?id=4670*.

FEMA's environmental planning and historic preservation review reveals that all environmental areas of concern are appropriately accounted for in the PEA with the exception of floodplain impacts. Table 1 provides a summary of the findings for the environmental areas of concern that FEMA typically reviews.

Table 1: Summary of Other Environmental Areas of Concern

Area of Concern	No Action Impacts	Proposed Action Impacts
Land Use	No effect.	The proposed action would have minor impacts to land use and would be consistent with surrounding or planned land uses. Project would disturb less than 5 acres.
Geology, Soils, and Seismicity	No effect.	The project is located in an urbanized area and will not impact farmlands. The proposed action would have minor impacts to land use and would be consistent with surrounding or planned land uses.
Water Quality and Resources	No effect.	Minor temporary effects to water quality that would be at or below water quality standards or criteria.
Wetlands	No effect.	No effect. Project located outside of designated wetlands.
Biological Resources	No effect.	Project will have No Effect on threatened and endangered species and will not adversely modify or otherwise affect critical habitat. No effect on native species, their habitats, and

		the natural processes sustaining them.
Human Health and Safety	Students, faculty, staff, and residents would remain vulnerable to tornado hazards.	All residents in the area will benefit from the safety provided by the facility.
Minority and Low-Income Populations	Students, faculty, staff, and residents would remain vulnerable to tornado hazards.	No adverse impact on minority or low-income portions of the population is anticipated. All residents in the area will benefit from the safety provided by the facility.
Historic Properties	No effect.	FEMA determined in accordance with CFR 36 Part 800.4(d)(1) that there would be no effect to historic properties due to the Proposed Action Alternative. The State Historic Preservation Office (SHPO) concurred with this determination in a response letter dated March 30, 2012.
Air Quality	No effect.	Minor short-term effects.
Noise	No effect.	Minor to moderate temporary effects during construction.

In compliance with FEMA regulations implementing Executive Order 11988, Floodplain Management, FEMA is required to carry out the 8-step decision-making process for actions that are proposed in the floodplain per 44 CFR §9.6. Step 1 is to determine whether the project is located in the floodplain. FEMA has determined that the Proposed Action Alternative is located in the 100-year floodplain, Zone AH, as depicted on Flood Insurance Rate Map (FIRM) Community Panel 4803380015E, dated June 6, 2000 (see Figure 1). Zone AH indicates an area with flood depths of 1 to 3 feet (usually areas of ponding) where base flood elevations have been determined. Based on interpolations from the Flood Insurance Study, the 500-year elevation at the safe room site is approximately 96 feet MSL (mean sea level) NGVD (National Geodetic Vertical Datum).

Step 2 is to notify and involve the public in the decision-making process, which will be incorporated into the notice of availability for this SEA.

Step 3 is to identify and evaluate practicable alternatives to locating the proposed project in the floodplain, including alterative sites and actions outside of the floodplain. Much of the City of Edinburg itself is located in Zone AH, Zone AE, Floodway, and Shaded Zone X, as is common for the low-lying, flat topography along the Rio Grande, and areas outside of the 100- and 500-year floodplain are not common. The City of Edinburg plans to build a safe room outside of the 100- and 500-year floodplain to serve citizens in the southern portion of the city and the county. The funding match for the proposed safe room that is being considered in this SEA is being provided by UTPA, and therefore the land available for constructing a safe room to serve university students, faculty, and staff as well as citizens in the city and surrounding areas to the north was limited to land within the university system. Alternative sites and actions outside of the floodplain were reviewed, however, none were practicable. There were no buildings on the UTPA that could be retrofitted for a safe room as all of the existing spaces on campus are currently occupied and being utilized for educational purposes or educational support purposes. The majority of the UTPA campus is located in Zone AH, so the area designated outside the 100

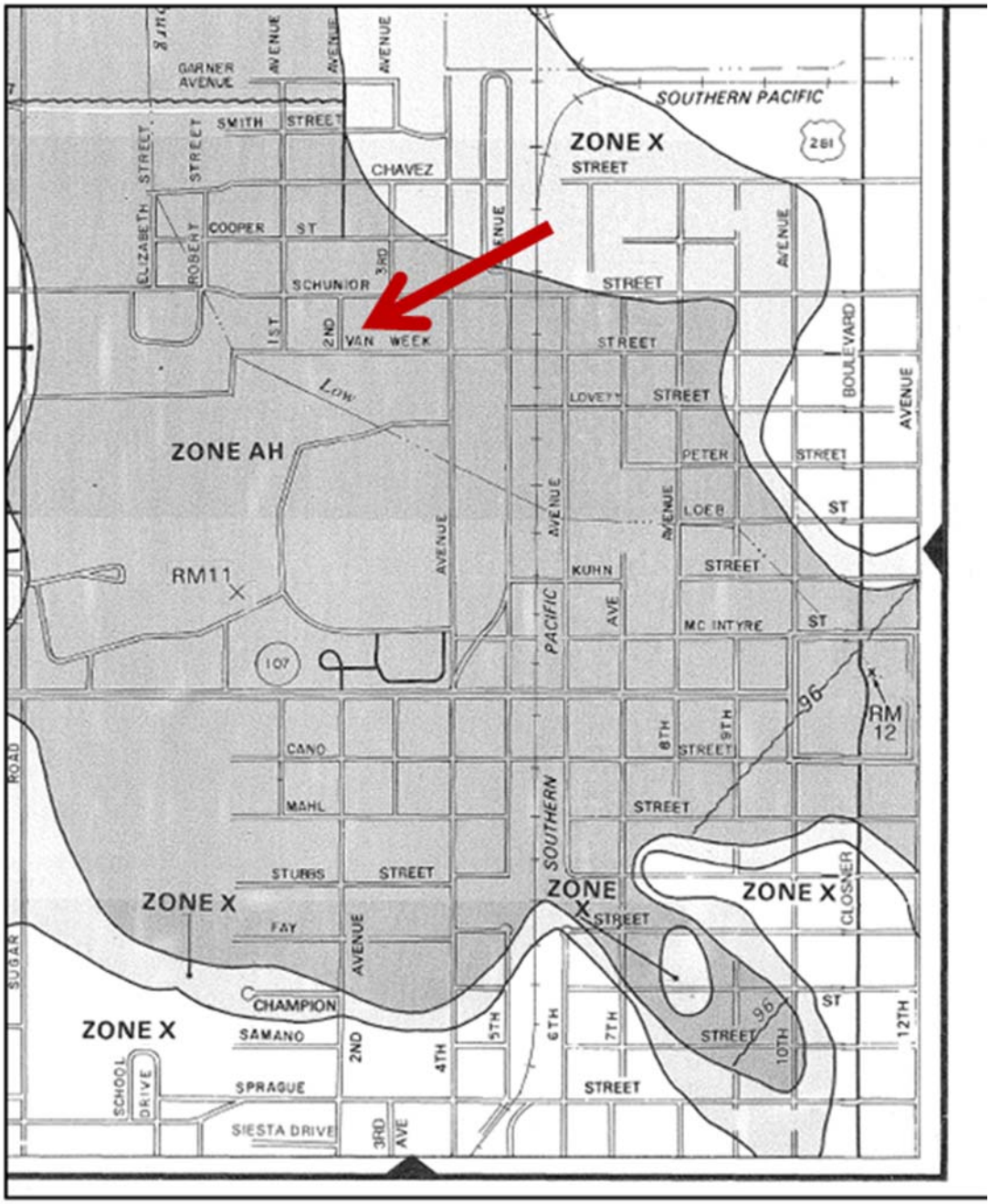

Figure 1: FIRM with Safe Room Site Indicated.
Source: FEMA.

year flood zone was limited. In those areas on the UTPA campus which are located outside the floodplain, and could accommodate a 20,000 square foot footprint, there is no infrastructure in the form of parking, electricity, sewer, and chill water to support a safe room, and thus would have made the construction cost prohibitive. The proposed site provides the greatest access to the community in addition to students, faculty, and staff at UTPA, and the site already has a parking area and utilities infrastructure, primarily chill water. Therefore no practicable alternative site or action outside of the 100- or 500-year floodplain exists.

Step 4 is to identify impacts associated with occupancy and modification of the floodplain and support of floodplain development that could result from pursuing the Proposed Action Alternative. Building the safe room in the floodplain could potentially increase the risk of structural damage due to flooding. It is not anticipated that the Proposed Action Alternative will result in an increased base discharge nor should it increase the flood hazard potential to other structures. As stated above, the majority of the City of Edinburg is already developed and is already in the floodplain and the addition of a safe room to protect lives is not anticipated to encourage development in the floodplain beyond what is already in place. The safe room is intended to serve existing populations.

Step 5 is to develop measures to minimize the impacts and restore and preserve the floodplain. In order to reduce the impacts identified in Step 4 of flooding on the proposed new structure and its occupants, the structure and its supporting utilities will be elevated at or above the 500-year elevation because the construction of a safe room is considered a critical action. The finished floor will be at an elevation of 98 feet, which is above the 500-year flood elevation of 96 feet. In addition, the City of Edinburg will be required to coordinate with the local floodplain administrator and obtain required permits prior to initiating work. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.

Step 6 is to determine whether the proposed action is practicable and to reevaluate alternatives. Per the discussion above, including elevating to mitigate flood risk to the safe room and the unavailability of a location outside of the floodplain, the Proposed Action Alternative is the only practicable alternative.

Step 7 requires that the public be provided with an explanation of any final decision that the floodplain is the only practicable alternative. In accordance with 44 CFR §9.12, the City of Edinburg must prepare and provide a final public notice 15 days prior to the start of construction activities. Documentation of the final public notice is to be forwarded to FEMA for inclusion in the permanent project files.

Step 8 is the review of the implementation and post-implementation phases of the proposed action to ensure that the requirements stated in 44 CFR Part 9.11 are fully implemented. The proposed safe room project will be constructed in accordance with applicable floodplain development requirements and in line with the conditions outlined below.

V. Mitigation

1. The City of Edinburg must coordinate with the local floodplain administrator and obtain required permits prior to initiating work. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.

2. The City of Edinburg must elevate the safe room at or above the 500-year floodplain elevation of 96 feet.

3. In accordance with 44 CFR §9.12, the City of Edinburg must publish a public notice 15 days prior to the start of construction activities. Documentation of the public notice is to be forwarded to FEMA for inclusion in the permanent project files.

In addition, the City of Edinburg will be required to comply with the conditions that are stated in the PEA FONSI, dated June 2, 2011, for the Proposed Action Alternative (see Appendix A).

VI. Agencies Consulted (see Appendix B)

Texas State Historic Preservation Office
Texas Commission on Environmental Quality

VII. Public Comment

A public notice advertising the availability of this Draft SEA for public review and comment will be posted in the local newspaper of record and at *http://www.fema.gov/plan/ehp/envdocuments/ea-region6.shtm*. The Draft SEA will be available at a local repository and at *http://www.fema.gov/plan/ehp/envdocuments/ea-region6.shtm*. A 15-day public comment period will commence on the initial date of the public notice. FEMA will consider and respond to all public comments in a Final SEA. If no substantive comments are received, the Draft SEA will become final and a Finding of No Significant Impact (FONSI) will be issued for the project.

VIII. List of Preparers/Reviewers

Dorothy Weir, Principal Preparer, Environmental Specialist, FEMA Region 6
Kevin Jaynes, CHMM, Principal Reviewer, Regional Environmental Officer, FEMA Region 6

IX. References

Federal Emergency Management Agency (FEMA). 2008. Design and Construction Guidance for Community Safe Rooms. FEMA 361, Second Edition. Available on-line at *http://www.fema.gov/library/viewRecord.do?id=1657*. Accessed June 29, 2012.

Rio Grande Institute. 2008. Cover the Border Hazard Mitigation Plan. Available on-line at *http://cees.tamiu.edu/covertheborder/draft_plan/RGI%20FINAL%20PLAN_14%20county.pdf*. Accessed June 29, 2012.

Appendix A

Finding of No Significant Impact (FONSI)

Final Programmatic Environmental Assessment for Hazard Mitigation Safe Room Construction

Appendix B

Agency Consultation

Appendix C

Site Plan