



3301 CARMEN AVE, 78575

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**BOARD OF ALDERMEN**  
**Special Meeting**  
**March 22, 2011**



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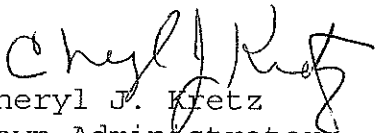
NOTICE OF A PUBLIC MEETING  
TOWN OF RANCHO VIEJO  
BOARD OF ALDERMEN  
SPECIAL MEETING

MARCH 22, 2011

6:00 P.M.

NOTICE is hereby given of a SPECIAL MEETING of the BOARD OF ALDERMEN of the TOWN OF RANCHO VIEJO, TEXAS, to be held on MARCH 22, 2011 at 6:00 P.M., in the TOWN MUNICIPAL OFFICE, 3301 CARMEN AVENUE, RANCHO VIEJO, TEXAS to consider the following items:

1. Call to Order
2. Roll Call
3. Invocation and Pledge
4. Public Hearing on Texas Safe Shelter Initiative Program (TSSI) - Community Safe Room Construction Project
5. Consideration/Action on Grant Application for Texas Safe Shelter Initiative Program (TSSI) - Community Safe Room Construction Project
6. Adjourn

  
Cheryl J. Kretz  
Town Administrator

Item #1:

Call to Order by:  
Mayor Medrano

# Item #2:

## Roll Call

by Isabel Perales, those present are:

Aldерwoman Carr

Aldерwoman Hager

Aldерwoman Hinojosa

Alderman Lackner

Alderman Rafac

Legal Counsel, Daniel Rentfro, Jr.

Town Administrator, Cheryl J.  
Kretz.

Item #3:

Invocation and Pledge

The pledge of allegiance to the United States Flag:

*“I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.”*

**And** the pledge of allegiance to the Texas State Flag is,

*“Honor the Texas Flag; I pledge allegiance to thee, Texas, one state under God, one and indivisible.”*

# Item #4:

Public Hearing on Texas Safe Shelter Initiative Program (TSSI) - Community Safe Room Construction Project



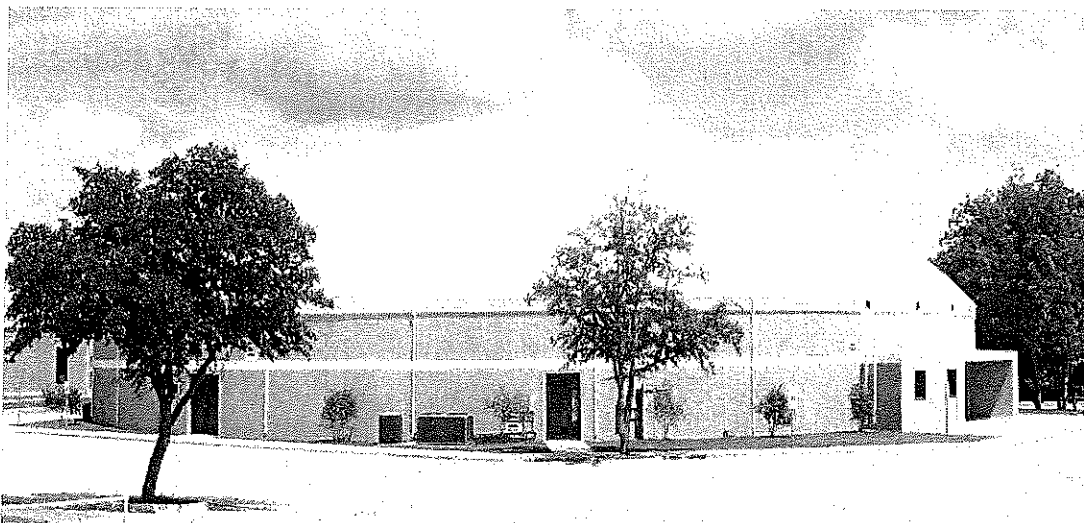
## **Important Notice to Rancho Viejo Residents**

**What:** There will be A Public Meeting Concerning the Construction of a Hurricane Shelter in Rancho Viejo; A Regular Board of Aldermen Meeting Will Follow Immediately to Consider Action on a Grant Application for the Construction of the Hurricane Shelter.

**Where:** Rancho Viejo Town Hall, 3301 Carmen Ave.

**When:** March 22<sup>nd</sup>, 2011 at 6:00 PM.

**Purpose of the Meeting:** To Present the Proposal to the Public and to Listen to Your Views About This Idea. Details Will be Available Concerning Cost and Who Pays, the Uses of the Facility Other Than Sheltering Residents (gymnasium, meeting spaces, public gatherings, Etc.), Where it is Proposed to be Located, and Other Important Information.





# Item #5:

Consideration/Action on Grant

Application for Texas Safe Shelter

Initiative Program (TSSI) - Community

Safe Roof Project

# Community Safe Room Project

## Narrative Statement / Scope of Work

### Summary

The Texas Education Agency (TEA), the subgrantee for this Hazard Mitigation Grant Program (HMGP) application, is requesting funding to develop a concrete, domed structure which will serve as a multipurpose community center for the community, and most importantly a disaster safe room for the City of Rancho Viejo and Cameron county that will meet the Federal Emergency Management Agency's criteria for near-absolute protection from hurricanes and tornadoes. Rancho Viejo is covered under the Cameron County HMAP.

This project is cost effective, with a benefit-cost ratio of 1.14 to 1. This new construction project does not adversely impact any environmental or historic resources on site or in the immediate project vicinity. In addition the project will not have an adverse impact on the quality of the human environment.

### Project Specifications

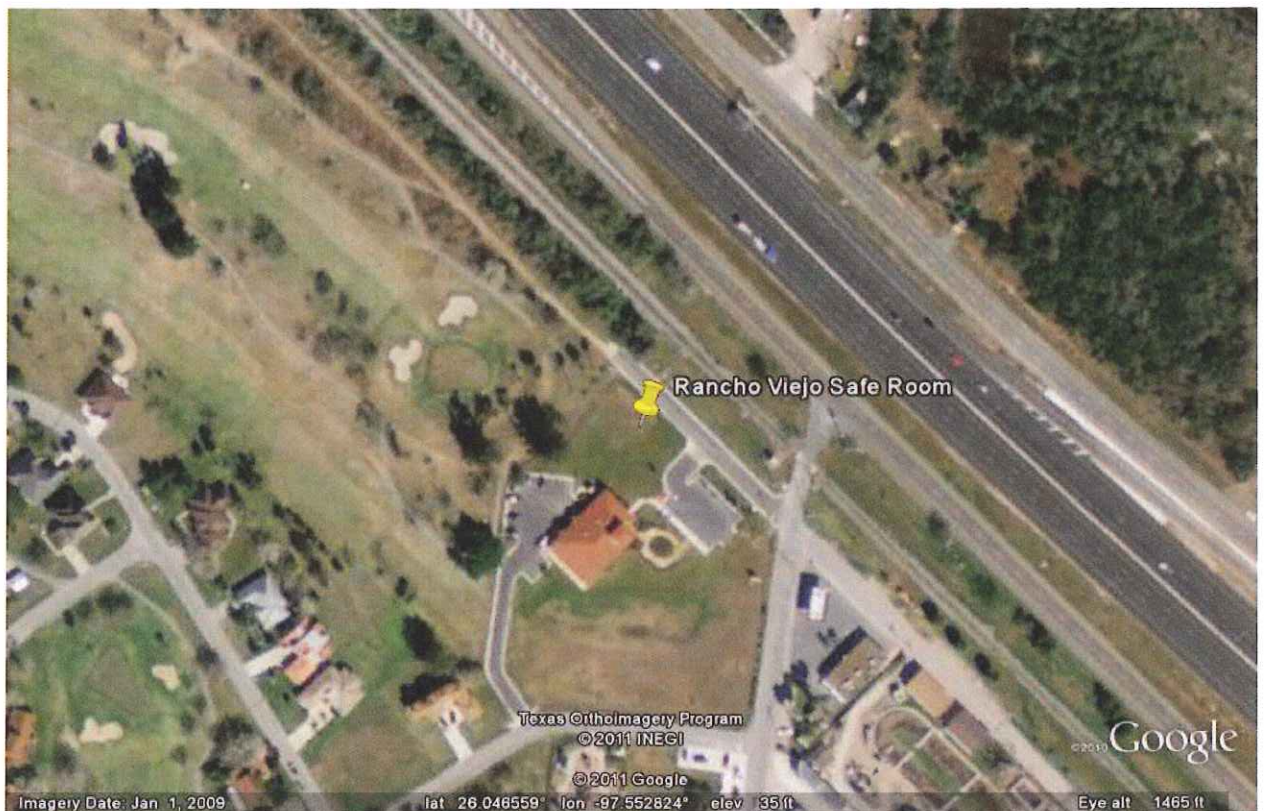
#### Location

The City of Rancho Viejo lies in the south-east portion of Cameron County. As of the 2000 census the city population was 1,937, and the county population was 392,736. Rancho Viejo is located at the juxtaposition of routes 73, 83, and 100.



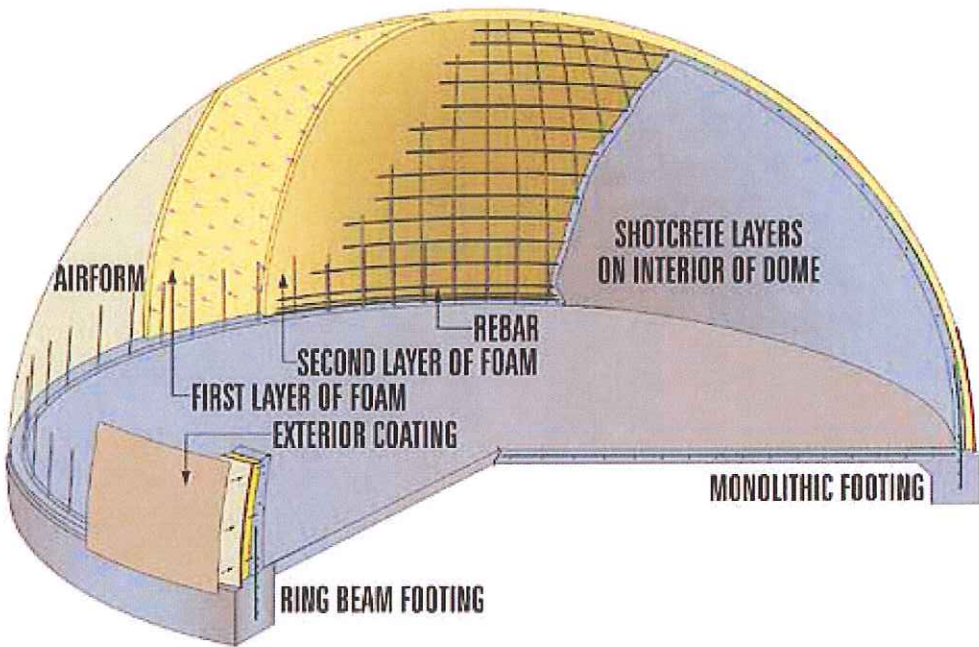
The proposed location for the construction of the dome-shell community safe room is within Rancho Viejo city limits at 700 Hidalgo Ave. Rancho Viejo, TX 78575 and the

coordinates are 26.045573°, -97.552500°. No structure stands on the proposed project site. Many low income housing areas, including trailer parks, are located in the same area. The project site is an open area next to the Town Hall and is kept and mowed.



## Design

The proposed project will be 5,000 square feet and constructed according to design standards specified in FEMA Safe Room publications, including FEMA 361, *Design and Construction Guidance for Community Safe Rooms* (2008). The proposed project offers near absolute protection from extreme weather events meaning that the occupants will be protected from injury or death when built to FEMA 361 standards. The dome constructed safe room will be made from reinforced concrete poured in layers in a domed shape.



By allowing 20 square feet per person during a hurricane event it is estimated that full capacity will be 250 people, while during a tornado event with a 5 square feet per person minimum maximum capacity increases to 1000.

### Environmental Impact and Cost Effectiveness

The proposed construction will be on an empty site, a mowed field on the campus. Confining the proposed construction footprint to this area leaves no adverse effect on a previously impacted site. The safe room will not adversely impact any environmental or historic resources on site or in the immediate project vicinity. In addition, the project will not have an adverse impact on the quality of the human environment. The estimate for the entire structure comes out to \$600,000 which when extrapolated out comes to \$120 per square foot. In addition the benefit-cost analysis came out to 1.14 to 1.

### Need for the project

Currently there is no safe room for the county area, yet the vulnerability for the area to hurricane and tornado events are very high.

### Alternatives Considered

Three alternatives were considered to provide safe room shelter to the communities during hurricane and tornado events. The first is to construct a concrete dome, procuring additional evacuation assets, and leaving them parked, only used once every 5-6 years, and the third is to take no action.

- Alternative 1: the proposed action includes obtaining necessary building permits, performing preconstruction site work, and finally the dome construction. Site work will involve filling and

compacting the building site, laying a storm drain system, and installing utilities. Building construction will involve inserting the stem walls 30 feet into the ground, pouring the concrete slab, inflating the Airform, spraying the polyurethane foam to hold form, erecting the steel rebar, and finally spraying many layers of shotcrete.

- Alternative 2: procuring additional evacuation assets, and leaving them parked, only used once every 5-6 years. The expense of purchase and contracting of crews for assets that are only used so seldom makes this option less cost effective than alternative 1. Additionally, the complexity of this alternative leaves it with a high risk of failure. There are insufficient commercial ambulance assets that can be obtained within the typical warning period for a hurricane to evacuate the known demand. The shortfall can only be made up by the purchase of dedicated equipment.
- Alternative 3: take no action. This means that no action would be taken to provide safe room shelter to the community during hurricane or tornado events. Alternative 3 would result in loss of life of residents and emergency personnel. This alternative continues to place the community at risk of hurricane and tornado events.

## Cost Estimate

The costs to complete the multi-purpose community center and safe room for Rancho Viejo are as follows:

### Cost Estimate

Permits & Fees	\$6,810.00
Site work	\$44,697.10
Construction of Structure	\$511,889.75
Engineering/Professional Fees	\$36,603.15
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Total	\$600,000.00

Cost estimates that are done in preliminary stages of a project are figured from past and present projects of similar size. Standard fees are percentages of project costs and a normal procedure of preliminary cost estimate has proven to be acceptable measure of expected cost. Unit cost of only eligible expenses is included on the budget sheet.

Item #6:  
Adjourn