915 West Annie, Austin, TX

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Tucker Engineering & Construction, Inc. 2809 Loncola Court Round Rock, TX 78681 (512) 255-7477 FAX (512) 244-3366 www.TuckerEngineering.net

#### FOUNDATION REPAIR CERTIFICATION

March 1, 2002

Reference: 12592

Mr. John Sallas

Level Check Foundation Repair 12728-A Dakota Lane Austin, TX 78729

Location of Property: 915 West Annie, Austin, TX

## INSPECTIONS

February 21 – Thirty-three spread footing holes had been excavated under the house. The holes were 24 inches by 24 inches by 24 inches. The bottoms of the holes were on the old concrete pads. Three #4 steel bars each way in a mat configuration were prepared to be placed in the footing areas. Four #4 steel bars were prepared to be placed vertically in the column areas. Twenty-two feet of new 4x6 pressure treated beam were in place. One new 2x6 joist had been installed. Steel straps, 3/16-inch by one inch, were nailed to the beams to be imbedded in the concrete.

February 27 – All of the concrete had been poured for all of the piers and footings and the floor had been jacked to as near level position as was practicable.

## CERTIFICATION

This is to certify that the foundation repair work performed to the house at 915 West Annie, was done according to my *Structural Inspection Report # 12433*, dated January 16, 2002, and was performed in a good and workmanlike manner.

Jeffrey L. Tucker, P. E. Structural Engineer

# Tucker Engineering & Construction, Inc.

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## STRUCTURAL INSPECTION REPORT

January 16, 2002

Reference No. 12433

To: Blanca Saldivar 915 West Annie Street Austin, TX 78704

Location of Property: 915 West Annie, Austin, Texas

Inspection Date: January 11, 2002

## **TYPE OF STRUCTURE**

This is a one-story, wood frame, single family house with horizontal lap siding around the exterior. The foundation is a pier and beam system. The roof structure is conventionally framed in gable configurations and is covered with asphalt shingles. The lot slopes from the left slightly down to the right.

## **OBSERVATIONS**

**Foundation:** The pier and beam foundation/floor system was constructed as follows:

Piers

The piers were cedar tree trunks, and there was quite a bit of decay where the piers penetrate the ground.

Beams

The beams were 4x6s and there was some rot at the kitchen.

#### Floor Joists

The joists were 2x6s at 16 inches on center. There was some rot in a joist at the kitchen.

Elevation readings were taken inside the house and it was determined that the foundation slopes downward from the perimeter to the center of the house with a deformation of about 2 <sup>1</sup>/<sub>4</sub> inches. There was also some deflection down at the right rear corner of about one inch. The soil on this lot was silty gravelly clay.

**Drainage:** The drainage patterns around this house appeared to be satisfactory.

<u>Superstructure</u>: No excessive movements, deflections or any other evidence which would indicate a structural problem with the roof or wall framing of this house were observed.

## CONCLUSIONS AND RECOMMENDATIONS

**Foundation:** I recommend that the following remedial work be performed:

- (1) Replace the existing cedar tree trunk piers with cast-in-place spread footing piers constructed as shown in the enclosed details.
- (2) Replace the rotten beam at the right end of the kitchen with pressure treated 4x6.
- (3) There is one rotten joist at the kitchen which needs a 4 foot long 2x6 scab properly nailed.
- (4) Level the floor as much as is practicable without breaking the tub and tile in the bathroom.

Pier and beam foundation/floor systems may move due to shrinking and swelling of the clay bearing soil. It may be necessary to periodically level and repair the piers and girders. There may be some rotten wood around the outside of the perimeter beam, which is not visible because of siding or skirting.

If it is desired for the purpose of certification of repairs, the engineer should be contacted for inspections as follows:

- (a) When the pier holes are complete and reinforcing steel is in place.
- (b) When leveling is complete.
- (c) At any other time that a problem is encountered which should be brought to the engineer's attention.

The engineer will charge a fee for these inspections and certification.

**Drainage:** No remedial work necessary.

It was dry during the time of the inspection and pooling of water and/or flow of water, which is not apparent at this time, may occur during heavy rains.

Superstructure: No remedial work necessary.

\* \* \* \* \* \* \* \* \* \*

I certify that I (or my representative) made this inspection as an independent registered professional engineer and have no interest, present or prospective, in this property or anyone involved with this property. I warrant that I (or my representative) visually inspected the components of this property as addressed in this report in a diligent manner and have honestly reported the findings of existing conditions and have made recommendations based on my experience and opinion. Neither Tucker Engineering nor I express or imply any guarantee of specific future structural performance with the limited scope of this inspection; rather, this is my best effort to interpret my observations and develop an opinion as to structural significance. There may be rotten or termite damaged wood that is not visible without destructive investigation. The conditions of the various components of this property described in this report are true as of the date of inspection. Changes may occur in this property after the inspection date, which could make null and void the contents of this report. No other warranty, either expressed or implied, is hereby made.

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Jeffrey L. Tucker, P. E. Structural Engineer

## CONTRACTOR LIST

Mr. J. J. Clark All in One Foundation Repair 512-821-0058 FAX 821-0063

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Mr. John Sallas Level Check Foundation Repair 512-257-1665 FAX 257-1572