City of Casa Grande, Arizona

Tatro 9/21/87

POST CONSTRUCTION ELEVATION CERTIFICATE/FLOODPROOFING CERTIFICATE

Building Owner: C & O Enterprise

Permit Number: 106.1031.86

INSTRUCTIONS: The registered professional engineer or land surveyor completes Section I. Print or type the information on this form. This form is to be used for new (POST-FIRM)construction and for substantial improvements to existing structures in Zones A1-A30, AO, AH, A99 and V1-V30 and existing (PRE-FIRM) buildings to be rated under POST-FIRM rules and rates.

SECTION I

Property Location

Parcel 1, Casa Grand Lakes, Pinal Co., AZ. - NW corner of Pinal Ave & N Casa Grande Lakes Blvd.

FIA MAP PANEL ON WHICH PROPERTY IS LOCATED: Community 040080 - 0010B

FIA MAP ZONE IN WHICH PROPERTY IS LOCATED: Zone A

LOWEST FLOOR ELEVATION AT THE BUILDING SITE: 1374.96 (Basement)

BASE FLOOD ELEVATION AT THE BUILDING SITE: 1378.00 (100 Year)

FIA MAP EFFECTIVE DATE: April 19, 1983

CERTIFIERS Name and Title: McDonald A. Overny - Architect

Phone: (602) 947-1700

ADDRESS: 3131 North 56th Street, Phoenix, Arizona 85018

McDonald A. Overny (Signature) Dec 10, 1986 (Date)

SECTION II

To be certified after 1st floor (Including Basement) has been completed.

INSTRUCTIONS

Complete only the Elevation Certification unless the building has been floodproofed at least to the base flood elevation. If floodproofing is used, complete only the Floodproofing Certification. The Elevation Certification must be completed by a registered professional engineer or land surveyor. The Floodproofing Certification may only be completed by a registered professional engineer.

ELEVATION CERTIFICATION

ZONES, A,A1-30,A-99, AH: I certify that the building at the property described above has the lowest floor (including basement) at an elevation of ____ feet, NGVD (mean sea level) and the average grade at the building site is at an elevation of ____ feet NGVD.

ZONES V,V1-V30: I certify that the building at the property location described above has the bottom of the lowest floor beam at an elevation of ____ feet NGVD(mean sea level) and the average grade at the building site is at an elevation of ____ feet, NGVD.

ZONE AO. I certify that the building at the property location described above has the lowest floor (including basement) elevated ____ feet above the highest adjacent grade. This meets/___/, does not meet/___/ the community's requirement for the new construction.

FLOODPROOFING CERTIFICATION

I certify to the best of my knowledge, information, and belief, that the structure is designed so that the structure is watertight to an elevation of 1384.96 feet NGVD (mean sea level), with walls substantially impermeable to the passage of water and structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy that would be caused by the flood depths, pressures, velocities, impact and uplift forces associated with the base flood.

In the event of flooding, will this degree of floodproofing be achieved with human intervention?* No.

Will the structure be occupied as a residence? No.

If the answer to both questions is Yes, the floodproofing cannot be credited for rating purposes and the elevation certification must be completed instead.

*Floodproofed with human intervention means that water will enter the structure when floods up to the base flood level occur, unless measures are taken prior to the flood to prevent entry of water (e.g. bolting metal shields over doors and windows).

CERTIFIERS NAME: ROBERT W JOHNSON

TITLE: REGISTERED PROF. ENG.

ADDRESS: 6516 W. VILLA THERESA DR. GLENDALE, AZ 85308

(Signature) 12/8/86 (Date)

If certified by Engineer or Land Surveyor AFFIX SEAL OR WRITE PROFESSIONAL LICENSE NO. BELOW

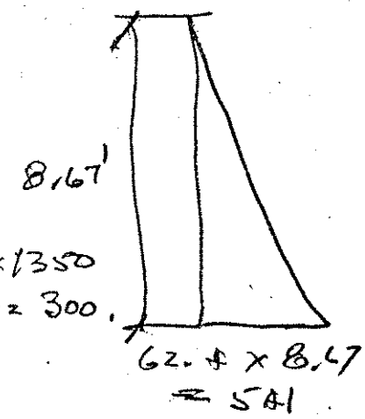
Registered Professional Engineer (Structural) CERTIFICATE NO. ROBERT WILLIS JOHNSON Date Signed ARIZONA, U.S.A.

CHECK FOUNDATION WALL FOR FLOODING CONDITION —

$M = .1283\,Wl$

$= .1283 \times \frac{541 \times 8.67}{2} \times 8.67$

$= 2609^{1-\#}$



$f_m = \frac{2.61 \times 12000}{12\,(9)^2} \times 8.306 = 268 < .167 \times 1350 \times 1.33 = 300.$

$f_a = \frac{1976}{11.63 \times 12} = 14.16$

$\frac{f_a}{F_a} + \frac{f_b}{F_b} = \frac{14.16}{267} + \frac{268}{300} = .07 + .89 = .96 < 1$ O.K.

CHECK UPLIFT

$17.33 \times .80 + 8.67 \times 118 = 1386 + 1023 = 2409^{\#}$
(RTG. ONLY)

UPLIFT MAX $= 2 \times 62.4 \times 8.67 = 1082 < 2409$

$F.S. = \frac{2409}{1082} = 2.23$ O.K.

∴ BASEMENT WALL SAFE AGAINST HORIZONTAL LOADS & UPLIFT DUE TO FULLY SATURATED SOIL DUE TO FLOODING.

ROBERT W. JOHNSON & ASSOCIATES
6516 W. Villa Theresa
Glendale, AZ 85308
(602) 439-1271

Registered Professional Engineer (Structural)
CERTIFICATE NO. 7474
ROBERT WILLISON JOHNSON
Date Signed
ARIZONA, U.S.A.