



MIAMI SHORES

DEPARTMENT OF PLANNING & ZONING
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PLANNING BOARD HEARING			
Miami Shores Village Town Hall Council Chambers 10050 NE 2nd Avenue Miami Shores			
Hearing Date		March 24, 2011	
Subject		Amendment of Section 523.2 Hybrid roofs.	
Action Required		Recommendation to the Village Council	
Staff Report		David A. Dacquisto AICP, Director, Planning and Zoning	Report Date March 7, 2011 March 28, 2011

New Information for April 28, 2011 Meeting

At the Public Hearing of March 24, 2011, the board heard comments and considered the proposed code amendment to permit “hybrid roofs.”

The board asked staff to add language to cover tile along the roof hip line and the alignment and spacing of the rows of clay tile set on the roof.

The following language incorporates the language requested:

Sec. 523.2. Hybrid roofs. is a new section and is an addition to the code, no existing language is modified or deleted, new language is in *italic*:

Sec. 523.2. Hybrid roofs.

In addition to the roofing materials permitted under Sec. 523.1. Construction. the following hybrid roofing systems and materials may be permitted:

(a) A metal pan tile with clay cap tile roofing system may be utilized for residences subject to Planning Board review and approval and in accordance with the following criteria:

- (1) All roof sections must begin and end with clay cap tiles at the hip, rake and ridge lines, and not begin or end with pan tiles. The rake line must end with a cap tile and rake tile.*
- (2) Clay cap tiles are to be set perpendicular to the roof eave in a straight line from the eave to the roof ridge with a variation in spacing*

between the rows of not more than four (4) inches within a variation of one (1) inch plus or minus.

- (3) The clay cap tile shall be impregnated with the same color intensity throughout.*
- (4) The metal pan tiles and clay cap tiles shall be of natural clay colors and shall match each other in color to the greatest extent possible.*
- (5) The details, color, and manner of installation shall be consistent with the architectural design, style, and composition of the residential structure, the neighborhood and community.*
- (6) No material of any kind shall be placed between the clay cap tiles except for the metal pan tiles.*
- (7) All work on the construction, alteration or repair of roofs shall be performed in a good and workmanlike manner according to accepted, standards and practices in the trade.*
- (8) The terms of this ordinance shall automatically sunset as of February 15, 2011, and shall thereafter have no force of effect whatever unless otherwise reauthorized by the Village Council.*

Background

At a public meeting on February 15, 2011, the Village Council passed a motion to refer to the Planning Board an amendment of Appendix A Zoning contained in the Miami Shores Village Code of Ordinances:

- 3) VILLAGE COUNCIL
 - A) DISCUSSION AND POSSIBLE ACTION REGARDING RE-ENACTING THE ACCEPTABLE ROOFING MATERIALS ORDINANCE. Mayor Davis

Mayor Davis offered background information as to why the referenced ordinance had been tabled and moved to take the item off the table and consider for adoption. Mrs. Holly seconded the motion and the vote was three to two with Councilman Davis and Mr. Herrera voting against the motion. Individual Council Members expressed their views on metal roofs, with Councilman Davis raising the issue of what he referred to as hybrid roofs. Councilman Davis proceeded to explain the construction of a hybrid roof, providing photos of a hybrid roof in a nearby municipality. In response to a question regarding how the Council could proceed, Mr. Sarafan outlined the various options available to the Council and under what circumstances the Planning Board would need to

be involved. After a lengthy discussion regarding the conceived pros and cons of metal roofs and hybrid roofs, Mayor Davis moved to re-enact the acceptable roofing materials ordinance (Ordinance No. 672-09) as it was previously adopted. Mr. Loffredo seconded the motion. The resulting vote was three to two in favor of the motion with Mr. Herrera and Councilman Davis voting against the motion. Additionally, Mayor Davis resolved to propose an amendment to the code of ordinances to allow for hybrid roof installations, referring such matter to the Planning Board for review and recommendation to the Council in a timely manner. Mr. Loffredo seconded the motion and the vote was unanimous in favor of the motion.

Amendments to the Appendix A Zoning contained in the Miami Shores Village Code of Ordinances may be referred to the Planning Board by the Village Council for consideration and recommendation. The Board will conduct a first reading of the proposed amendment at a public hearing March 24, 2011. The Board will then hold a second reading of the proposed amendment at a public hearing tentatively scheduled for April 28, 2011. The public will have an opportunity to comment on the proposed amendment, a staff report will be presented including proposed language, and after consideration of the information provided, the Planning Board will make a recommendation on the amendment to be forwarded to the Village Council.

Analysis

The Village Council has asked that the Planning Board consider amendment of the zoning code to allow a hybrid roof system as an option to the existing approved materials for roof construction.

The Miami Shores Building Official has reviewed one hybrid roof system incorporating a metal pan tile with clay cap tile and found that it is approved by Miami-Dade County and that it meets the requirements of the Florida Building Code when properly installed.

The metal pan tile clay cap tile system gives the general appearance of a clay tile roof from the street. The look of the roof is affected by the placement of tiles. The metal pan tiles are attached to the roof and the clay cap tiles are glued in a row atop the metal pan tiles. The clay cap tiles must be carefully placed or the row of clay cap tiles running up the roof will have a wave in it or will curve as it goes up. The other factor affecting the look of the roof is the distance between clay cap tiles. As the space between the clay cap tiles increases, more of the metal pan tile is visible and the less the roof looks like a standard clay tile roof. The look of the roof is also affected by the inconsistent spacing of the clay cap tile rows. Clay tile roofs have a consistent spacing between the rows of clay cap tiles while the spacing between clay cap tile rows can vary greatly across a hybrid roof .

Should the Planning Board consider amendment of the code of ordinances, the following language is provided as an addition to the language contained within the Zoning Appendix Contained in the Village Code of Ordinances:

Sec. 523.2. Hybrid roofs. is a new section and is an addition to the code, no existing language is modified or deleted:

Sec. 523.2. Hybrid roofs.

In addition to the roofing materials permitted under Sec. 523.1. Construction. the following hybrid roofing systems and materials may be permitted:

(b) A metal pan tile with clay cap tile roofing system may be utilized for residences subject to Planning Board review and approval and in accordance with the following criteria:

- (1) Clay cap tiles are to be located not more than four (4) inches apart at the base.*
- (2) The clay cap tile shall be impregnated with the same color intensity throughout.*
- (3) The metal pan tiles and clay cap tiles shall be of natural clay colors and shall match each other in color to the greatest extent possible.*
- (4) The details, color, and manner of installation shall be consistent with the architectural design, style, and composition of the residential structure, the neighborhood and community.*
- (5) Except for the metal pan tile, no material of any kind is to be placed between the clay cap tiles on slopes facing front or side streets.*
- (6) The placement of material on roof slopes facing interior side lot lines and rear lot lines shall require the approval of the Planning Board.*

Recommendation

Should the Planning Board determine that it is in the best interests of the community to amend the **Miami Shores Village, Code of Ordinances, Appendix A ZONING**, the Planning Board may make a motion recommending to the Village Council **APPROVAL** of the amendment to **Article V, SUPPLEMENTARY REGULATIONS; DIVISION 7. QUALITY OF BUILDINGS; Sec. 523.2 Hybrid roofs**. Providing for the regulation of roofing material, Providing for Conflicts, Providing for Severability; and, Providing for an Effective Date. If the Board votes to recommend **APPROVAL** of the amendment, staff recommends that the amendment include the following language:

Sec. 523.2. Hybrid roofs. is a new section and is an addition to the code, no existing language is modified or deleted:

Sec. 523.2. Hybrid roofs.

In addition to the roofing materials permitted under Sec. 523.1. Construction. the following hybrid roofing systems and materials may be permitted:

(c) A metal pan tile with clay cap tile roofing system may be utilized for residences subject to Planning Board review and approval and in accordance with the following criteria:

- (1) Clay cap tiles are to be located not more than four (4) inches apart at the base.*
- (2) The clay cap tile shall be impregnated with the same color intensity throughout.*
- (3) The metal pan tiles and clay cap tiles shall be of natural clay colors and shall match each other in color to the greatest extent possible.*
- (4) The details, color, and manner of installation shall be consistent with the architectural design, style, and composition of the residential structure, the neighborhood and community.*
- (5) Except for the metal pan tile, no material of any kind is to be placed between the clay cap tiles on slopes facing front or side streets.*

(6) The placement of material on roof slopes facing interior side lot lines and rear lot lines shall require the approval of the Planning Board.



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The Universal Hybrid Roof Tile System
The Advantages



The Advantages

Affordable
Easy to Install
100% Recyclable
Energy Efficient
Low Life Cycle Cost
Lightweight
Uses Less Materials
Fire/Hurricane Resistant
Retro-Fit Upgrade

Specifications & Approvals

Class A Fire Tested
Wind Tested
Miami Dade County Approved

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ArteZanos® Inc. U.S. Patent
7,513,084. Other U.S. and Foreign
Patents Pending.
Patents Pending

1. Light Weight

The system is half the weight of our traditional ArteZanos worldclass barrel tile installation. At approx. 400 Lbs. Per square or 4 lbs. Per sq ft, this system weighs less than all known "S" tile clay or concrete barrel tile designs. This reduces transportation costs, minimize dependence on fossil fuels and increase range of competitive market logistics.

2. Recycled & Recyclable

The universal pan is made out of 80% recycled aluminum of post consumer content and is a valuable recyclable commodity at the end of its useful life. ArteZanos worldclass handmade barrel roof tile utilizes at least 50% ground up re-processed clay from recycled products at our point of manufacture. This process refines our product to make what will become an artezanos worldclass handmade barrel roof tile. The artezanos worldclass handmade barrel roof tile is a traditional barrel roof and like any traditional barrel tile it can be re-moved, recycled and re-installed.

3. Compatibility & Design Flexibility

The Hybrid Universal Roof Tile System is compatible with any kind of barrel tile in the world. In addition, ArteZanos worldclass handmade barrel roof tiles have physical dimensions similar and are compatible to other barrel tiles in the world. In the event of repairs, tiles similar in profile but not exact can be used without dismay. Typically, traditional barrel tiles last so long ,roofs often have been found to be repaired with tiles of more than one manufacturer.

4. Long Life Cycle

Traditional barrel tile roofs often last longer than the buildings they are originally placed on. The florida building code recognizes this by exempting old cuban and handmade barrel roof tile because they passed "the test of time". It has been documented that in the 1920's antique barrel roof tile more than 200 years old was brought in large quantities for use on the notable developments of the time for the purpose of making make new buildings look "old".

5. Energy Efficiency

A. ArteZanos worldclass handmade barrel roof tile is made of clay. Clay is a great thermal insulator and more so because of its convex shape helps to keep you cool during the summer by increasing air circulation between roof tiles minimizing heat transmission to the interior roof space.

B. The universal metal pan is a terra-cotta painted step-formed aluminum pan with a color reflective index of approx. .40. The universal aluminum metal pan helps keep your roof cool because of the aluminum properties of heat dissipation. The universal metal pans will also work to cool the roof at night through a process known as nocturnal emmissivity. Allowing accumulated heat during the day escape via the roof at night decreases the potential load of air conditioning.

C. Polyfoam adhesive has been tested by the N.E.R.L. Labs and is documented to increase the r-values of roof installations.

D. Polystyrene is an optional blocking installed in between the universal pans to facilitate the even application of polyfoam adhesive when the clay tiles are installed on top. Polystyrene itself is an insulation and when combined with polyfoam adhesive , artezanos world class barrel tile and the aluminum universal pan assemble to create a very energy efficient system.

6. Impact Resistance

Impact resistance and attachment resistance can be increased using the optional polystyrene blocking. This helps prevent damage to the roof envelope during high winds and mitigate hurricane damage.

7. Simple to Install

The Hybrid Universal Roof Tile System is very simple to install and requires no skilled labor. The system is approx. 70 Pieces of artezanos worldclass handmade barrel roof tiles over approx. 13 Universal pans totaling 83 pieces per square (100sqft.)

8. Photovoltaic Roof Tile Integration

The system provides the continuity needed for roof tile integration of any solar pv technology and achieves the aesthetics needed to gain market acceptance as well as reduce and simplify installation costs.

9. Green Roofing & Horticulture

The Hybrid Universal Roof Tile System satisfies a growing need in the residential sloped roofing sector to green roof tops without expensive structural reinforcement. By means of our light weight soilless medium , one can now introduce drought resistant ornamental horticulture to add a new dimension to roofing design, mitigate storm water run-off, increase insulation and curb appeal. The economical and ecological benefits of green roofing are numerous.

10. Class "A" Fire Rated

The Hybrid Universal Roof Tile System has passed ASTM E-108 and has a Class "A" fire -rating.

11. Hurricane & Disaster Resistance

The hybrid universal roof tile system was designed for wind attachment resistance and has the highest wind rating in the industry using the polyfoam roof tile adhesive AH-160. Its light weight design also makes it ideal for seismic prone areas.

12. Retrofit

The light weight Hybrid Universal Roof Tile System can be retro-fitted over existing asphalt shingles to extend the existing roofs life cycle and inherit all of the above advantages. One additional benefit would be the reduction of demolition destined to the land fill. This system as a retro-fit over asphalt shingles can cost less than a new shingle re-roof and would be an affordable means to create a more energy efficient and impact resistant structure to protect against hurricane wind hazards.

[Learn More about the Components](#)

Questions? [Contact Us](#)
The Universal Hybrid Roof Tile System

