Section III – Supporting Documentation for Venice Beach Pavilion Local Register Nomination

The Venice Beach Pavilion is significant for its architecture, engineering features, history, and ties to a locally prominent architect and engineer. It is the fourth structure to be located at Venice Beach. The Venice Beach Pavilion was preceded by Dr. Fred Albee's Beach Casino (1925), the Venice Beach Casino (1934), and the Venice Beach Dance Pavilion (1956). It was completed in 1964 to replace the beach casino that was aged and in disrepair. The firm of William Lindh & Cyril Tucker, which had a series of prominent commissions in the city, was awarded the contract to design a modernistic structure for a city looking to the future after World War II.

For almost thirty years, the Venice Beach Casino served the community in many capacities. It was a bath house, restaurant, meeting room, snack bar, dance hall, tax collector's office, city hall, and polling place. It's Mediterranean Revival style architecture blended in perfectly with John Nolen's plans for Venice. But the harsh climate of wind, blowing sand, sun, and rain led to the deterioration of the building. In 1962, the Venice City Council approved a plan to overhaul the beaches in Venice. This included updates to parking, sewer, water, and plans for a modern beach facility. Council formed a Beach Advisory Committee, with former city councilman David Hamilton as chair. Upon his appointment, Hamilton said after discussions with committee members and council that they, "all agreed that the new casino should be modern in architecture without being controversial." The new building, he said, "would have to be light, airy, spacious and functional in design to provide the proper facilities for residents and visitors alike."[1] The city planned to serve as the general contractor for the project but hired the firm of Walter Lindh and Cyril Tucker to design the new structure.

Cyril Tucker and William Lindh

Cyril Tucker was an architect from Rochester, NY who opened up his Venice office in 1954. As one of his firm's first commissions, the staff drew up the plans *pro bono* for the Union Missionary Baptist Church. Soon after Tucker was hired to design plans for city hall with administrative offices as well as a combined police and fire station on East Venice Avenue. Other commissions included the education building at the Venice-Nokomis Methodist Church, Smack's Hamburgers, Disciples of Christ Church, and the Chateaugay Condominiums located at 1200 Tarpon Center Drive.

William Lindh opened his first office in Venice in 1957. His first major work was to design the Ringling Brothers and Barnum & Bailey Circus Arena in the city. Lindh would also provide civil engineer consulting services for the City of Venice; a relationship that lasted for many years. He often worked in partnership with Paul Youngberg on city projects. Other city commissions of note included extending Harbor Drive through the airport property, widening Tarpon Center Road, the city's water aerator/softener, sewer plant, and a replacement water tower at the utilities plant. Lindh would also consult for the Englewood Water District and City of North Port, before being convicted of income tax evasion in 1974. He was reinstated two years later, but soon ran into other problems when his designs for the city's new water treatment plant came into question following several malfunctions.

In the Fall of 1959, Cyril Tucker and William Lindh began working together.[2] One of their first major commissions came the following year when they designed a bowling alley for Hall of Fame pitcher Early Winn. Other commissions would soon follow, including the Chamber of Commerce Building on North

[1] "Plan to Modernize Venice Beach, Cost $40,000 Including New Casino," *Venice Gondolier*, June 28, 1962, pgs. 1, 6.
[2] "Architect, Engineer" *Venice Gondolier*, October 8, 1959, pg.7.

Tamiami Trail and expansion of St. Marks Church. Later that year, Tucker and Lindh would design their new Modernist office building at 329 W. Miami. One of the many unusual features of the building was its folded, plate-stressed, skin plywood roof covered with fiberglass. The Continental Circus—made up of owners of the Ringling Bros. and Barnum & Bailey Circus—tapped Tucker and Lindh to design a 5,000-seat circus arena that could be built in Venice and then disassembled and transported for use at the 1964 New York World's Fair.

Hyperbolic Paraboloid

Post World War II industrialization introduced new materials for building construction along with new ways to design structures. One design element in particular took advantage of these materials and designs to give buildings an eye-catching futuristic look: the hyperbolic paraboloid roof. By the late 1950s, architects in the United States began experimenting with this design style, picking up where others in Europe had started before World War II. Eduardo Catalano, who taught architecture at the School of Design at North Carolina State College (now University), designed a home for himself in 1954 using 2' x 4's and warped planking. The double-curved surface was generated by straight lines of wood that slid along two different directions not in the same plane. This lattice framework was then covered with warped layers of plywood, each perpendicular to the previous layer, and all attached with glue and nails.[3]

The building sector was touting this roof design, noting that its dual curvature designed with straight lines could withstand large live loads, such as wind, rain, and snow.[4] This is due to the nature of the double curved surface where on every point of the surface the tension stresses and compression stresses are equal and constant. In other words, the stress of the high points wanting to flatten out are cancelled out by the stress of the central arch wanting to flatten out. Catalano demonstrated the strength of this design with a model roof made of balsa wood that was able to distribute and hold 50 times its weight.[5]

Constructing the Beach Pavilion

In 1963, the City of Venice revealed plans to redevelop the Venice Beach area. The Beach Advisory Committee proposed enhancements, such as improved drainage, paved parking, and a new beach pavilion. Venice City Council budgeted $45,000 to complete the new pavilion and authorized staff to serve as general contractor to supervise construction. The team of Lindh and Tucker were awarded the design contract. They proposed a 6500 square foot area consisting of a 64-foot square separate hyperbolic paraboloid roof shading a concession stand and a shower/changing structure. Hamilton noted that the "unusual roof treatment not only gives the proposed new building an ultra modernistic look that will give tourists 'something to write home about' but is the cheapest type of roof that could be constructed over that great space."[6] To save costs, the roof was made of wood and epoxy rather than concrete.

Lindh's idea of using a wooden hyperbolic paraboloid roof began in 1960 when he designed one for the University Terrace First Congregational Church in Tampa. In 1962 he designed a new teen youth center with a hyperbolic paraboloid near Chuck Reiter Park. He went as far as creating a model for the

[3] "A New Way to Span Space," *Architecture Forum*, November 1955, pg. 174.
[4] "The Hyperbolic Paraboloid: New Thin Shell Roofing Type that Promises Great Things," *Concrete Construction*, January 1, 1959, pg. 1
[5] "A New Way to Span Space," *Architecture Forum*, November 1955, pg. 175.
[6] "Casino Model Unveiled; Fall Opening Planned," *Venice Gondolier*, April 11, 1963, pg. 1.

proposed building that would include removable walls so as to configure the space under the roof for different needs. A year later, Lindh was involved in a plan by the Optimists Club of Roberts Bay to build an auditorium, dubbed the Lyceum, that would also have a hyperbolic paraboloid roof. Neither project materialized.

Using the hyperbolic paraboloid concept, Lindh designed the roof of the beach pavilion to be able to withstand 125 mph winds. Six months later the city made updates to the bathrooms, adding tiled walls and floors and separating the showers from the bathrooms. After many from the public expressed their concerns about the structure's stability, Lindh had wire tie-downs added to the hyperbolic paraboloid roof. Lindh knew these were not necessary but added them to assuage the public.[7]

The dedication for the new beach pavilion took place on February 8, 1964. The project was completed at a cost of $54,000. Hamilton, Lindh, and a host of dignitaries attended the opening. It took less than two weeks for controversy to start over the structure's use. The city's youth began using the large floor area under the roof for impromptu dances. Complaints poured into City Hall, which prompted the City Council to weigh in on the matter. The youth were allowed to have their dances on Sunday afternoons at the pavilion. Other youth-related concerns included constant graffiti on the roof from Venice High School students who climbed on it.

The structure also began receiving more positive notoriety. The National Park Service was in the midst of their Mission 66 program to update many of the facilities used in their parks. As part of the program, they partnered with the National Conference on State Parks and the American Institute of Park Executives to share best practices in technical designs and operating services. One of the results was The *Park Practice Program*, a series of design drawings highlighting best practices in everything from gates to bathhouses, to amphitheaters. In December of 1965 the Venice Beach Pavilion was highlighted as an example to emulate.[8] The city government began using the beach casino as its symbol, placing it on letterhead, vehicles, and advertising.

The building required regular painting of the roof to protect it from the elements. The design itself though allowed the beach pavilion to withstand many large storms that hit Venice. This includes a storm in 1974 with wind gusts over 55 miles per hour and 6-foot waves that destroyed seawalls and damaged properties up and down the beach in Venice, including the fishing pier and the south jetty. With the exception of the buildup of sand, the structure went unscathed.

The biggest risk to the survival of the beach pavilion came in 1998. A backlog of maintenance and repair required major work at the beach pavilion. The City of Venice and Sarasota County debated the merits of repairing or replacing the structure. In the meantime, Venice Main Street came forward with a proposal and recommendation for the city to demolish the structure and replace it with a Northern Italian styled beach facility with a restaurant, meeting space, and changing stations. The decision was instead made to reroof the current beach pavilion.

Beach Pavilion Structure

[7] Undated letter from William Lindh, David Hamilton Papers, Julia Cousins Laning and Dale Laning Archives & Research Center.
[8] *The Park Practice Program: Beach Pavilion,* Index R-4053, Plate 469-B, Contributed by Florida, City of Venice, December 1965. National Park Service History eLibrary (https://www.npshistory.com/newsletters/park_practice/index.htm#design), accessed October 21, 2024.

The Vencie Beach Pavilion consists of the hyperbolic paraboloid roof along with two structures beneath used for concessions, bathrooms, and changing stations.

The roof consists of 2" x 6" at 16" off center timbers laid flat in a grid pattern, with ¾" plywood skins on the top and bottom. Connecting wood surfaces are glued with epoxy glue.[9] The perimeter edge beam contained a 4"x 8" steel tube. The steel at the buttresses are 3' square and all steel is welded, doweled into concrete, and glued to the wood. Hypalon roof treatment was applied to the roof surface.[10]

To ensure the open canopy could withstand hurricane-force winds, Lindh designed the shell, perimeter beam, buttresses, and foundation to withstand four times the normal live load—double what the building code required.

Underneath the hyperbolic paraboloid sits two structures that share a common roof. The first is used as restrooms and dressing rooms. It is approximately 20' x 36' and made of concrete block with a rough-hewn surface of white coral rock. The second structure serves as a concession and refreshment area with a small kitchen. It is approximately 17 1/2' x 32' and constructed of pebble-finished panels with wall surfaces of anodized aluminum and glass.

[9] *The Venice Beach Casino Story,* Protective Coatings, Inc., 1964