RESOLUTION NO. 2018-01

A RESOLUTION OF THE HISTORIC ARCHITECTURAL REVIEW COMMISSION (HARC) OF THE CITY OF KEY WEST, FLORIDA, APPROVING RECOMMENDATIONS TO THE CITY COMMISSION REGARDING THE DETERMINATION OF THE CHIEF BUILDING OFFICIAL OF THE DEMOLITION OF CERTAIN STRUCTURES AT THE HISTORIC DIESEL ENERGY PLANT AT 100 ANGELA STREET/ GERALDINE STREET, PURSUANT RESOLUTION NO. 18-088 OF THE CITY COMMISSION; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, on March 6, 2018 the City Commission approved Resolution No. 18-088, which directed City Manager to submit the issue of demolition of certain components of the Diesel Generating Plant to HARC for an advisory, non-binding, opinion, pursuant to Sec. 102-221, to be provided to the City Commission as the owner of the Diesel Generating Plant; and

WHEREAS, each HARC Commissioner individually, and with the attendance of HARC and Engineering staff, visited the Diesel Generating Plant, during the days of April 2, April 5 and April 10 2018, in order to study the buildings and their actual conditions; and

WHEREAS, in April 16, 2018 HARC held a public workshop for the Diesel Generating Plant, in which the Chief Building Officer and Staff from the Engineering Department attended to discuss their opinion and questions of the conditions of the buildings, possible recommendations and future action tasks ; and

WHEREAS, during the workshop HARC members and citizens discussed their opinions and made questions to city's staff of the conditions of the Diesel Generating Plant buildings, possible recommendations and future action tasks; and

WHEREAS, the HARC members during the workshop recommended to their staff to gather all mentioned recommendations to be reviewed and discussed during the regular HARC public meeting to be held on May 23, 2018.

NOW, THEREFORE, BE IT RESOLVED BY THE HISTORIC ARCHITECTURAL REVIEW COMMISSION OF THE CITY OF KEY WEST, FLORIDA AS FOLLOWS:

Section 1: That the Historic Architectural Review Commission concludes that the main goal for the City Commission, as owners of the Diesel Generating Plant, shall be to prevent any additional loss of the historic fabric of the buildings by preserving the historically significant structures and their contents, and place the buildings in a new use that is compatible and sensitive to the historic character of the site.

Section 2: That the attached document titled Recommendations of the Historic Architectural Review Commission for the Historic Diesel Generating Plant is hereby approved.

Section 3: That this Resolution shall be provided to the City Commission as the Historic Architectural Review Commission advisory,

non-binding opinion pertaining the Diesel Generating Plant as required under Resolution 18-088.

Section 4: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the Presiding Officer and the Clerk of the Commission.

Passed and adopted by the Historic Architectural Review Commission at a meeting held this 26th day of June, 2018.

Authenticated by the Presiding Officer and Clerk of the Commission on 28th day of June, 2018.

Filed with the Clerk on June 28, 2018.

Chairman Bryan Green	Yes
Vice Chairman Richard McChesney	Yes
Commissioner Bert Bender	Yes
Commissioner Joel Cognevich	Yes
Commissioner Joe Moody	Absent
Commissioner Letisia Powell	Yes
Commissioner William Shepler	Yes

Bryan Green, Chairman

ATTEST:

Vicky Walker, HARC CLERK

Recommendations of the

Historic Architectural Review Commission for the

Historic Diesel Generating Plant

EXECUTIVE SUMMARY

The Historic Architectural Review Commission requests the City Commission to lead by example and take steps to minimize future damage of these historic buildings, to preserve Buildings 1, 2, 3a, and 4, and to bring them back with an adaptive use compatible with the adjacent Bahama Village neighborhood and the new Truman Waterfront Park. With June 1st 2019 being the given date by the Chief Building Official to comply with his orders; long-lead funding and restoration plans should be immediately pursued to allow for funding cycle times.

Introduction

The Historic Architectural Review Commission (HARC), created by City Charter, is the city's agency responsible for preserving the character and appearance of the historic district, as well as buildings, structures and properties recognized as significant resources to Key West unique architectural and historical heritage. The Historic Architectural Review Commission members, each appointed by a City Commissioner and the Mayor, have different professional backgrounds. The current seven HARC members are:

1. Chairman Bryan Green- Architect, Commissioner Payne Appointee
2. Vice Chairman Richard McChesney- Attorney, Commissioner Weekley Appointee
3. Commissioner Bert Bender- Architect, Mayor Cates Appointee

4. Commissioner Letisia Powell- Realtor, Commissioner Kauffman Appointee
5. Commissioner Joe Moody- Electrical Engineer, Commissioner Romero Appointee
6. Commissioner Joel Cognevich- Architect, Commissioner Lopez Appointee
7. Commissioner William Shepler- Architect, Commissioner Wardlow Appointee

The Historic Architectural Review Commission, acting as an advisory agency for the City Commission, which is also the owner of the buildings in question, renders the following opinions and recommendations as stipulated under Resolution No. 18-088. The opinions and recommendations are founded on the Land Development Regulations, site visits, research, and professional knowledge of each HARC member, documents presented as part of the workshop held on April 16, 2018, information given by the Chief Building Official and Engineering staff during the workshop, and comments from citizens.

Background:

In November 2016, a referendum to transfer the real property known as the Diesel Plant from Keys Energy Services to the City of Key West obtained the majority of votes from the citizens of Key West.

On February 12, 2018, the Chief Building Official conducted a hearing for the *Petition to declare building unsafe/dwelling unfit for human habitation and notice of administrative hearing* for the buildings at the Keys Energy Diesel Plant in Bahama Village.

On February 21, 2018, the Chief Building Official rendered his *Order to repair, alter, or improve buildings* for the Diesel Generating Plant. On his order, the Chief Building Official

requires that the owner of the property, the City of Key West, take the corrective measurements:

Demolition of buildings 3, 4, and 5.

Repairs of buildings 1 and 2, including storm resistant roofing for building 2, closing of all openings in buildings 1 and 2, structural repairs to exterior brick walls for building 1 and 2. All exterior repairs are to be approved by HARC.

On April 6, 2018, the City Commission approved Resolution No. 18-088 directing the City Manager to submit the issue of demolition of certain components of the Diesel Generating Plant to HARC for an advisory, non-binding, opinion pursuant Sec. 102-221.

Individual visits to the Historic Diesel Generating Plant by the Historic Architectural Review Commission members and their staff were conducted with the Engineering staff as follows:

April 2

9:00am Commissioner Moody

10:00am Commissioner Shepler

11:00am Commissioner Powell

2:00pm Vice Chairman McChesney

3:00pm Chairman Green

April 5

10:00am Commissioner Bender

April 10

3:30pm Commissioner Cognevich

On April 16, 2018, the Historic Architectural Review Commission held a public workshop to discuss their opinions about their visits and gather comments from City staff and citizens in attendance at the workshop.

Recommendations:

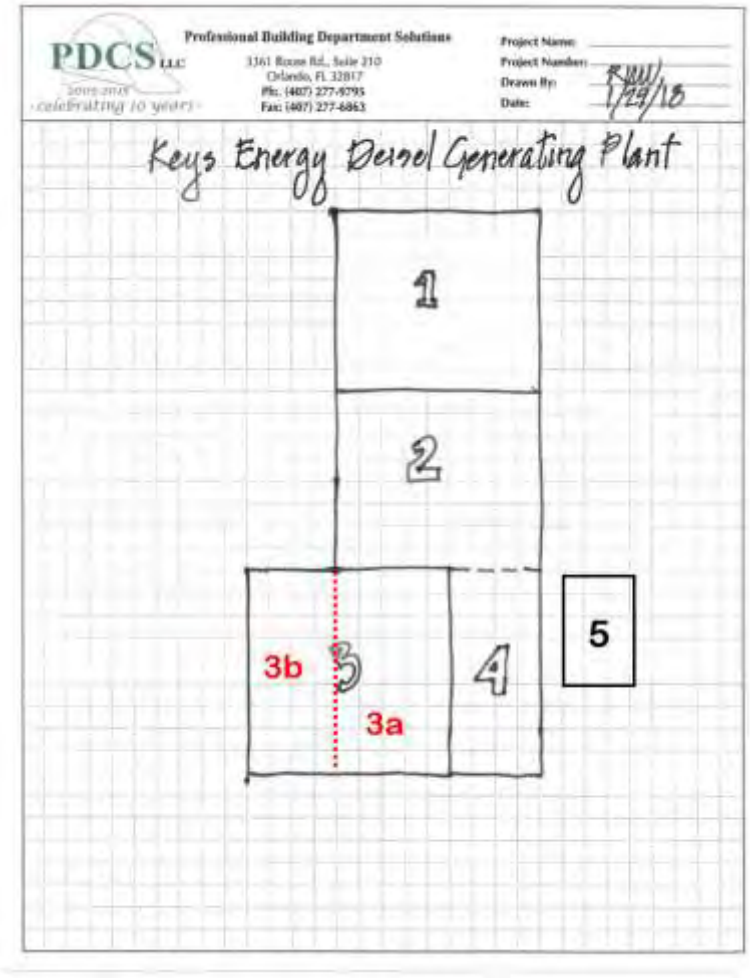
The main goal is to prevent any additional loss of the historic fabric of the Diesel Generating Plant, preserve the historically significant structures and their contents, and pursue rehabilitation focused on a new use that is compatible and sensitive to the historic character of the site. Due to the unique architecture and location of the buildings, it is advised that the future use be of an inclusive one, where citizens, locals, and visitors can experience the buildings that must promote Key West's history and unique heritage, pending determination of financial feasibility.

Objective 1. Understanding the significance of the site, its buildings, and the historic machinery found in the interior.

To comply with the City's Comprehensive Plan- Historic Preservation Element-*"Preservation Measures. The identification, analysis, and preservation of the City's historical, architectural, and archaeological resources shall be continued. This shall include the determination of their significance and vulnerability, as well as the implementation of preservation management policies as such resources are identified. The above efforts are to be coordinated by HARC, the Historic Preservation Planner, and other non-profit preservation organizations"*.

1(a). **History of buildings and their local, statewide, or national significance** - It is paramount to understand the history of the buildings, the number of buildings and all additions that have taken place throughout the life span of the Diesel Plant Complex. Not all existing buildings belong to the same period of significance. Machinery and changes in technology clearly affected the exterior of the buildings in terms of fenestrations (openings), heights, and alterations to the historic fabric. Clear floor

drawings referencing the number of buildings are important when conveying determinations pertaining a building's health and its future. This document will use the following drawing as reference to each building on the site. Top of the building 1 is Angela Street right side of building 5 is the actual Key's Energy electric substation, bottom of building 3 (a) and 3 (b) and building 4 is Geraldine Street and left side of buildings 1, 2 and 3 (b) is the Truman Waterfront Park.



Floor plan sketch for Diesel Plant complex

1 (b). **History of existing electric generating machinery inside of the buildings and their local, statewide, and/or national significance –** In the interior of the buildings there are five

machines, four large-scale generators and one smaller machine. Two hoist machines with their rails at top plate level are still located on Building 2 and 4. There are also parts of the main circuit breakers- or heart of all machines located on Building 2 over a concrete platform built over a brick structure. In addition, portions of historic stacks can be found in Building 2. The existing iron beams and columns found on Buildings 2 and 4 are not part of the structure of the buildings but rather they are related to the machinery. The machines do not have their identification plates, making their identification and year of manufacture a difficult task. About some of the machinery found inside of the complex:

a. Two Nordberg Dynamo Electric Generators- Bruno V. Nordberg 1857-1924, was an engineer and builder born in Finland in 1857. He was the founder of the Nordberg Manufacturing Co. in 1886, in Milwaukee, Wisconsin. By the 1940s company produced almost 95 percent of military and defense order, making marine and stationary diesel generators, mine hoists, crushers, compressors, and torpedo tubes. The company was "one of the world's leading producers of heavy machinery".[i] In 1946, the company bought the Bush- Sulzer Diesel Engine Co., founded in 1911 by Adolphus Busch of Anheuser-Busch Brewery. The Smithsonian Institute Archives has a collection of the company's documents including photographs, machine blueprints, and correspondence.

b. One Busch- Sulzer Diesel Engine Co- Adolphus Busch obtained the rights from Rudolf Diesel to build diesel engines in the United States in 1897. In 1911 Busch merged with Swiss brothers Albert, Heinrich, and Edward Sulzer, diesel engine builders. The Sulzer brothers

supplied diesel engines for US Navy submarines during World War I.

Unknown manufacturer

Dynamo generator in Building 1

Small machine in Building 1

Nordberg Dynamo generator in Building 2

Busch-Sulzer Bros- St. Louis Dynamo generator in Building 2

Nordberg Dynamo generator in Building 4

Performance for Goal 1.

a. Historic Structure Reports (HSR) of the buildings – It is important to understand the history of each building and their components. This will be a tool to trace the significance of each building and their machineries, how the Diesel Plant was developed and transformed from a gas production plant to an electric plant, including additions, alterations, and loss of architectural elements. The HSR will also include current deterioration of building materials, recommend methodologies for preservation and conservation, planning priorities for a successful preservation plan, and recommendations for sensitive adaptive use, among others.

(b) HARC recommends that the City submit applications for grants, like the small-matching grant with the Florida Department of State - Historic Resource Division. The matching grant portion is waved as the City as recognized as a Certified Local Government. Maximum grant award is up to $50,000 for this type of study. The Department of State also provides a Special Category Matching Grant with a maximum award up to $500,000.

Objective 2. Understanding the actual state of the buildings and, with the knowledge of the historic significance of each building, develop a plan of action.

2(a). **Survey and Structural Assessment of the Buildings** – The buildings in question are historic, ranging from circa 1883 through 1950s in their construction dates. For more than 50 years, the structures have been abandoned and neglected. It is important to recognize the current structural condition of each building.

2 (b). **Recognition that later additions to the Historic Diesel Plant are not part of the period of significance of the brick historic buildings and do not possess architectural value –** It is concluded that Buildings 3b and 5 are not architecturally significant additions to the Historic Diesel Plant. Building 3b is an addition, attached to Building 3a. The addition, built with reinforced concrete, is located over Fort Street, obstructing a historic connection between Fort and Angela Streets. Building 3b has a mural painted by artist Eric Anfinson and kids from the community under Just 4-Kids Art Center during the summer of 2011. The main portion of the mural is over a wood panel that can be removed and relocated. Building 5 is a detached concrete structure built in the east side of the complex for exhaust pipes. The structure has no architectural significance, nor windows or doors.

2 (c). **Recognition of Buildings 1, 2, 3a and 4, as part of period of historic significance of the Diesel Generation Plant, as they are depicted in historical photographs and in the Sanborn maps**– The Chief Building Official has opined that Buildings 1 and 2 must be repaired and Buildings 3a and 4, in addition to Buildings 3b and 5, should be demolished. Buildings 3a and 2 are the oldest structures of the complex, when it was known as the Gas and Electric Company. Building 4 was built later, but before the turn of the 20th century, as an Ice Plant.

Performance of Goal 2:

(a)On April 3, 2018 the City Commission approved under Resolution 18-121 a task order for Engineering Design and Assessment Services for Stabilization of the five buildings at the former Keys Energy Diesel Plant. Conclusions and recommendations must be analyzed.

(b) Develop plans for the demolition of Buildings 3b and 5. A design should be in place and approved by HARC and the Building Department in order to complete a façade of Building 3a facing West.

(c) Buildings 3a and 4 are part of the historic period of concern of the Diesel Plant complex, first known as the Key West Gas and Electric Light Co. and later The Key West Electric Co. Power and Light Station and Ice Factory. We recommend that both buildings be preserved.

Objective 3. Buildings 1, 2, 3a, and 4 must be retained and preserved. The City of Key West must comply with its own policies adopted under the City's Comprehensive Plan - Prevent loss of historic structures; *There shall be no loss of historic resources on City-owned properties. Sensitive adaptive re-use of historic structures shall be encouraged as an alternative to demolition.*

3(a). **Protection of Buildings 1, 2, 3a, and 4 of the Diesel Plant, to stop neglect and decay of their exterior and interior** - Buildings 1, 2, 3a and 4 shall be preserved, as they are collectively significant architectural and engineering structures that represent an important period of the history of Key West as a progressive island. The abandonment and neglect of the buildings needs to end. Current conditions of the buildings include open fenestrations, missing roofs, and portions of roofing that can be lost with any strong gust of wind.

3(b) **Rehabilitation of Buildings 1, 2, 3a, and 4 of the Diesel Plant to be re-adapted to a new sensitive use** - Currently, Building 1 is used as storage for City's landscape equipment and materials.

Any new proposed use for the buildings must take into consideration the Secretary of the Interior's Standards and Guidelines for Rehabilitation as well as HARC Guidelines.

Performance of Goal 3:

(a). Weatherization of Buildings 1, 2, 3, and 4 should be performed immediately. Since 2016, an engineering report stated the need to repair and/or new construction of the roofs for Buildings 2, 3 and 4. Control of water and animal infiltration to the interior of the buildings must be achieved by the installation Lexan or wood panels on all fenestrations where windows are missing or damaged.

(b). Brick and mortar grants are available through the Florida Department of State Division of Historical Resources Special Category Matching Grants (up to $500,000 matching), TIF money, National Endowment for the Humanities grant (up to $750,000 matching). The city must support and approve the $2.2 million for capital improvements that the Engineering Department will be requesting for the 2018-2019 Fiscal Year Budget for the stabilization and repairs of the Historic Diesel Plant.

(c). Due to the historic character of the buildings, it is highly recommended that a pre-qualification is required of experienced professionals and contractors in historic brick and mortar for any bidding process for design and construction phases for the renovation, demolition of Buildings 3b and 5, and any required work done on the historic fabric of the existing brick buildings.

(d). It is reasonable to state that the buildings at the Diesel Plant will not be used for their original use as a diesel plant. Their location between Bahama Village and the new Truman Waterfront Park, their architectural features, and their historic contents make Buildings 1, 2, 3a, and 4 unique structures in the Key West skyline. It is recommended that the buildings be adapted in a

sensitive manner that can accommodate a new use that requires minimal changes to the essential character defining features of the structures, and that their interior historic machinery is considered to be protected and preserved either on the site or in a museum setting. The new use shall be complementary to the new facilities of the Truman Waterfront while compatible with the residential neighborhood that surrounds it. Cultural uses may be the most appropriate, but other uses are possible. Ideally, the machinery will be preserved inside of the buildings with an interactive educational program about history of energy production through today's technology; this can be one of many experiences offered to young and adult visitors.

(e). The City has expressed that the only use they have for the buildings is for storage. It is recommended that the City investigate a partnership with an institution with experience in the rehabilitation of historic buildings and their management in order to administer and re-use the buildings in a sensitive way.

(f)Creative adaptive use rehabilitations of historic power plants have been documented, two white papers on such projects, published by the National Trust For Historic Preservation are attached to illustrate some of the possibilities. Those papers are titled: *Historic Power Plants: A Tricky (But Rewarding) Resource to Adapt*, by Michael R. Allen, and *The History Behind One of Austin, Texas' Hottest Development Properties*, By David Weible.

Creative adaptive use- Interior of La Centrale Montemartini- Rome

[i] The Milwaukee Sentinel August 5, 1956

National Trust for Historic Preservation®

February 6, 2013

Historic Power Plants: A Tricky (But Rewarding) Resource to Adapt

By:
Michael R. Allen

This is the final installment of our guest series on the remarkable transformation of a hospital power plant in St. Louis. This week looks at other American examples of power plant reuse and examines what makes the City Hospital project unique. Read the series to date [Link: http://blog.preservationnation.org/tag/st-louis-city-hospital/] .

Seaholm Power Plant in Austin, Texas.

The Power Plant at City Hospital is the only historic power plant building in the United States that has been reused for a large-volume recreational purpose. Power plants remain difficult buildings to reuse due to their large open volumes, which have to be retained to some extent to qualify for historic tax credits.

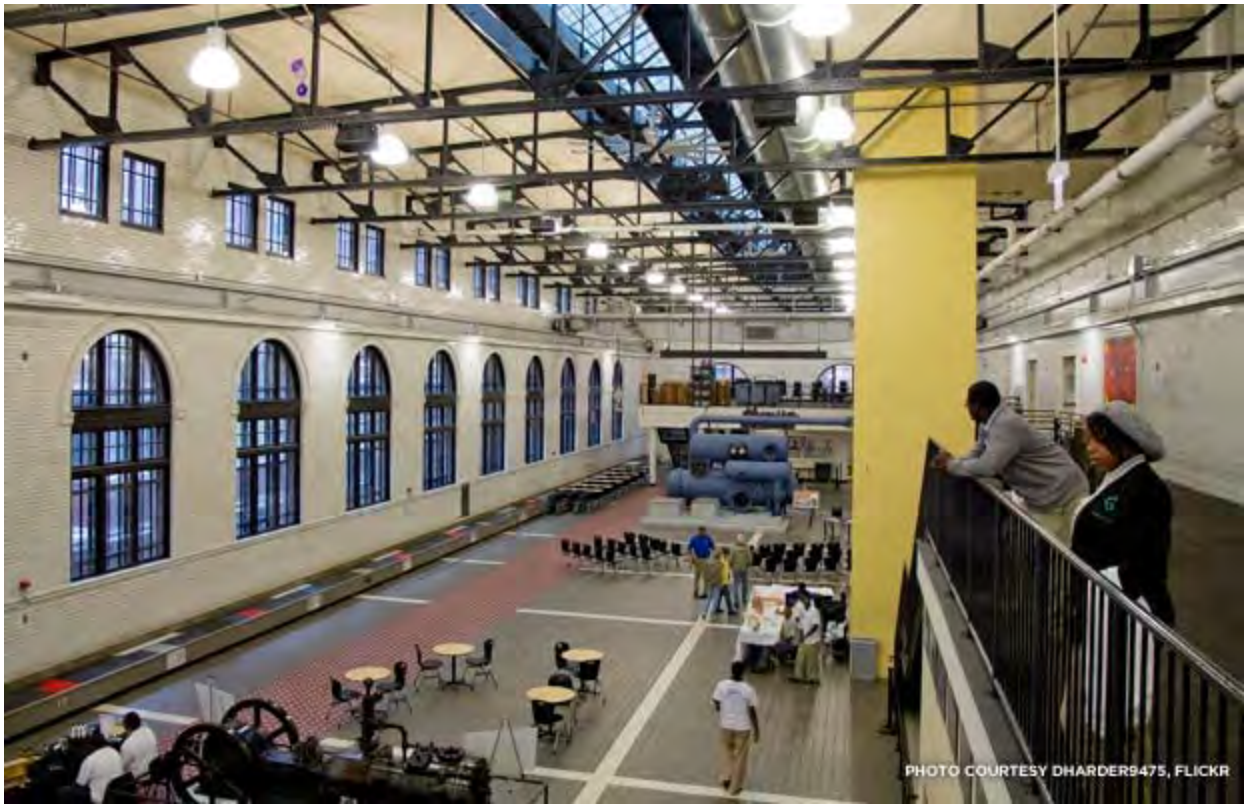
A survey of adaptive reuse projects at historic American power plants shows that they tend to be used for office, retail and even residential space. It's common for floors to be added in these configurations, making it even more significant that the City Hospital Power Plant retained its original space.

In Austin, Texas, a plan to reuse the Seaholm Power Plant [Link: http://www.seaholm.info/] may become the nation's next adaptive reuse project for a power plant building. The plan calls for a 7.8-acre historic power plant becoming a sustainable, mixed-use, adaptive reuse development. The original 1950s Art Deco building will be adapted into commercial, retail, exhibition, and residential space.

Inside Cannon Design's renovated office in the Municipal Service Building power plant.

In St. Louis, Cannon Design has adapted the former Municipal Service Building power plant [Link: http://www.cannondesign.com/practice/profile/locations/st-louis/] -- a finely detailed Renaissance Revival building designed by the firm of Study & Farrar -- into an impressive office space. Built in 1927, the 19,000 square foot power plant had been vacant 25 years when the $8 million Silver LEED renovation started. (The project also received state and federal historic rehabilitation tax credits.)

The interior's four-story open volume, illuminated through large full-height arched steel sash windows, posed a challenge. Cannon's solution: insert a free-standing block of three floors to handle work space, set back from the outer walls to allow for some sense of volume to remain. The end result is 32,000 square feet of usable office space.



Overlooking the Great Room at the Charles H. Shaw Technology and Learning Center in Chicago.

Around the same time that Cannon Design's new office opened, the Charles H. Shaw Technology and Learning Center opened in Chicago in a former Sears, Roebuck and Company power plant built in 1905. Completed in 2009, the renovation created classrooms, a learning facility for high school students, and community spaces while retaining the power plant's historic exterior, including original wooden windows. This project received federal historic rehabilitation tax credits.

An earlier adaptive reuse that has continued to be successful is the Pier Four Power Plant [Link: http://en.wikipedia.org/wiki/Pratt_Street_Power_Plant] (or Pratt Street Station) in Baltimore developed by Cordish. Built between 1900 and 1909, the power plant served electric street railways. Today, the Pier Four Power Plant is activated with commercial and entertainment tenants. Although an indoor Six Flags was located here from 1985 through 1989, there was no active-use recreational component, and today the interior is carved up by multiple users.

Sunrise over the Pier Four Power Plant in Baltimore.

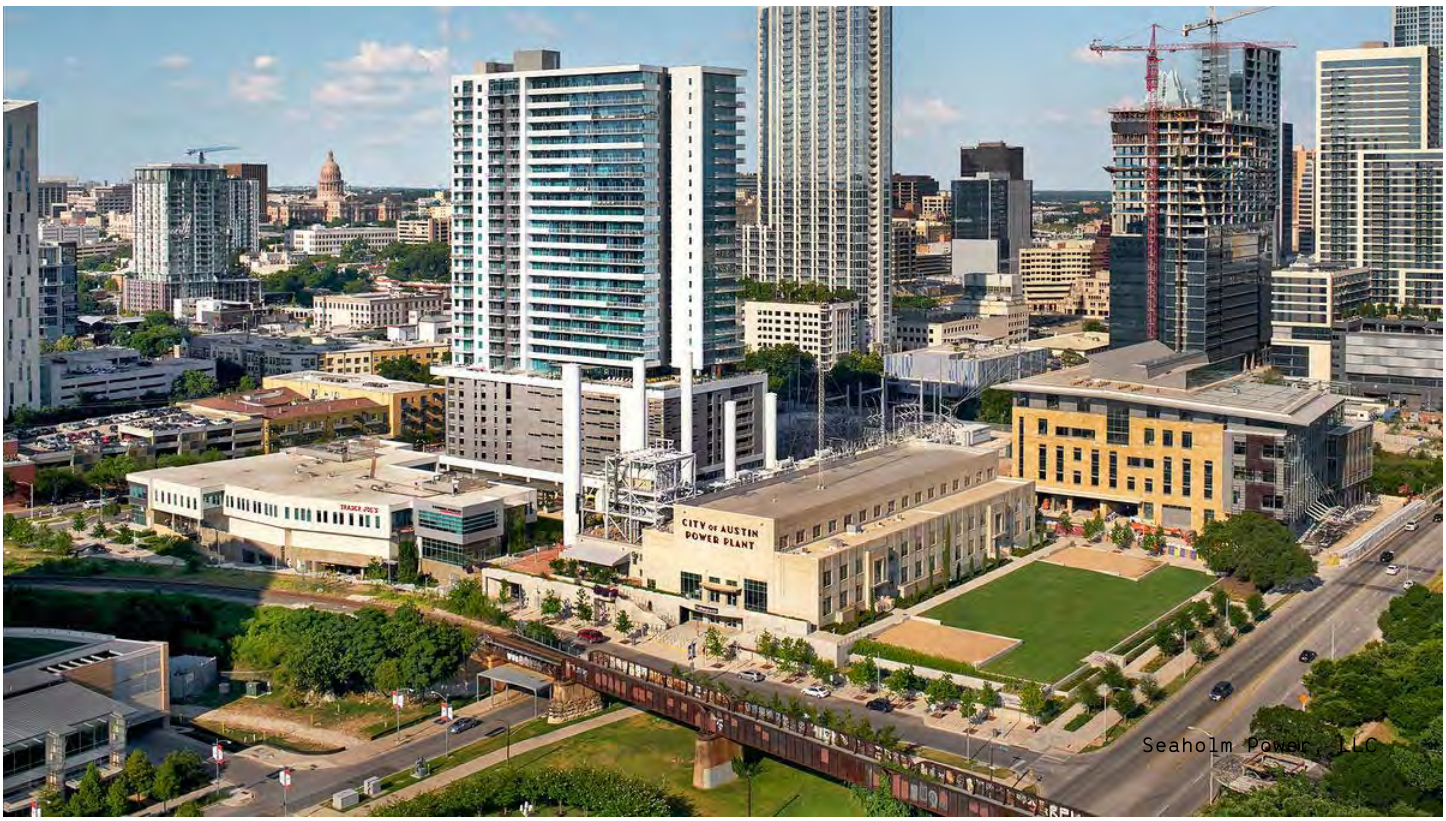
With all these examples in mind, **the City Hospital Power Plant stands today as one of only a few American power plants to find adaptive reuse, and the only that has been dedicated to a recreational use.** When first built, the power plant embodied a massive federal effort to curb the effects of the Depression. Years of service to a busy public hospital were followed by years of abandonment and neglect. Yet the original purpose of the power plant remains apparent in its indelible design, enhanced and respected through its new use as a recreation and entertainment destination.

National Trust for Historic Preservation®

November 30, 2016

The History Behind One of Austin, Texas' Hottest Development Properties

By:
David Weible



The 1948 Seaholm Power Plant has been transformed into 130,000 square feet of commercial space.

At more than 65 years old, it's no surprise that Austin's Seaholm Power Plant is no longer producing electricity, but it is still helping to power the city as one of its hottest new development projects.

What is now more than 130,000 square feet of commercial space in downtown Austin was commissioned as the city's new power source in 1948. At the time, post-war Austin had a population of roughly 130,000, and it was growing fast. In addition, new appliances like dishwashers and air conditioners were putting an added strain on the municipality's already over-worked infrastructure.

The structure built to help remedy the electrical shortfall was a hulking, three-story Art Moderne building capable of producing 100 megawatts of electricity—more than enough to power the city on its own. Though portions of the project went online earlier, the full plant—named for Austin's fourth city manager—was finished in 1958, and though it was originally designed to burn coal, the utility company made the switch to burning heavy crude oil before its coal bins were ever used.

As the 20th century wore on, new gas, nuclear, and solar power sources were built around the city to supplement the aging Seaholm plant. By the 1980s, the Seaholm's systems had grown obsolete and in 1989, the plant ceased generating power—though it remained an active part of the region's power grid.

The plant's final boiler was finally shut down for good on July 28, 1992. The site itself sat nearly untouched for a decade, and its once-thriving landscape became overgrown, disheveled, and largely forgotten. By 1997, the city of Austin was looking to demolish the plant, though a local friends group sprang into action to save the structure.

As Austin's downtown began to see a resurgence in the early 21st century, ideas for Seaholm's reuse began to surface—a city aquarium space was one of the many proposals that was intriguing but failed to take root.

Then, in 2004, the city of Austin got serious and issued a request for proposals for redevelopment of the site, coupled with a commitment to remediate the toxic PCBs and heavy oil deposits that remained at the scene.

That's when Seaholm Power, LLC [Link: http://www.seaholm.info/] stepped in, led by managing partner John Rosato. In April 2005, the team was selected to redevelop the full 7.8-acre site, including the power plant itself. Their approach balanced the construction of a new high-rise residential tower, a shorter commercial building, and a parking garage on the site with the restoration and preservation of the iconic Seaholm Power Plant.

The team was careful to recognize and celebrate the existing structure's history. Its massive turbine hall was preserved and left open for public viewing as opposed to being leased as private office space. They also kept as much old infrastructure as they could, leaving some original boilers intact as well as a 75-foot crane.

In addition, they deconstructed various levels of the structure to open up a 65-foot-high atrium at the center of the plant. Outside, old water intake pipes that once brought helped cool the plant's radiators were repurposed to collect 320,000 gallons of water to irrigate the site's 1.5 acres of green space.

Construction of the project began in 2013 and was completed in early 2016. The site's 280 residential spaces have already been sold while local businesses and a Trader Joe's occupy many of the commercial spaces in the new buildings.

The historic Seaholm Power Plant itself, meanwhile, is occupied by healthcare tech giant Athenahealth and a local restaurant, which sits in the four-story space where the ninth boiler once helped churn out the city's power.

Today, thanks to some creative thinking, the Seaholm Power Plant remains a powerful symbol for the city of Austin and its history.

David Weible is the content specialist at the National Trust, previously with Preservation and Outside magazines. His interest in historic preservation was inspired by the ‘20s-era architecture, streetcar neighborhoods, and bars of his hometown of Cleveland.