

# Engineer Report



**Cable Storage Structure  
Mallory Square  
Key West, Florida 33040**

August 3, 2010



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Engineer Report

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Mallory Square  
Key West, Florida 33040**

TABLE OF CONTENTS

Section 1 .....Scope of Work  
Section 2 .....Existing Conditions  
Section 3 ..... History  
Section 4 ..... Findings & Discussion  
Section 5 ..... Conclusions & Recommendations  
Section 6 ..... Photographs

Attachment A .....Local Map  
Attachment B.....Site Map

## Section 1: Scope of Work

The purpose of this Engineer Report is to provide a professional evaluation of the Cable Storage Structure on Parcel 2 at Mallory Square, Key West, Florida.

## Section 2: Existing Conditions

The Cable Storage Building is located at Mallory Square, Key West, Florida. (See Attachment A, Local Map and Attachment B, Site Map)

The Mallory Square property includes five parcels at the south side of the property. There is a cable storage structure on Parcel 2 and another on Parcel 3. The Cable Storage Building on Parcel 2 is the subject of this report.

The building has a circular footprint and was constructed with a concrete foundation and concrete walls that extend approximately five feet above grade. There are wood framed walls that extend an additional three feet (approx.) above the concrete walls. The building has a wood framed roof system. There is a wood framed floor system inside the building near grade level that is elevated above the bottom of the concrete foundation.

## Section 3: History

The Cable Storage Building was originally used to store underwater cables. It was most recently used to house a kitchen to support the operations of a restaurant. The Cable Storage Building is currently being considered for use as part of a proposed restaurant on Mallory Square. The building is a non-contributing historic building that the Historic Architectural Review Commission is requesting to be integrated into the new restaurant plans.

Sea Tech, Inc. was retained to provide an evaluation of the Cable Storage Structure in order to determine the feasibility of re-using the building.

## Section 4: Findings & Discussion

The building observations were conducted between 22 July 2010 and 2 August 2010. The attendees included Mr. Paul R. Semmes, PE, Mr. John Paul Castro and Mr. Ryon LaChapelle representing SeaTech, Inc.

There was no invasive work requested or performed during the observation. The observations were made only of readily visible components of the building.

Access to the interior spaces of the building was limited due to the lack of lighting and the poor condition of the floor framing system.

The concrete structure was mostly concealed by wood framing and siding materials.

There were two openings in the concrete walls that extended from the grade level to the top of the concrete structure. The openings were three feet wide and six feet wide. There were other openings in the walls for ac units, venting, etc. There was no tie beam along the top of the concrete walls.

The wood floor framing system was damaged. There were rotted wood members and one third of the floor area appeared to be settled or failed. The floor framing system appeared to be unsafe.

The roof framing system was damaged. There were rotted and deteriorated wood framing members. The wood posts were rotted and deteriorated.

## Section 5: Conclusions & Recommendations

The Cable Storage Building is in poor condition. The floor framing system presents an immediate danger for injury, the roof framing system has deteriorated to the degree that the serviceability and structural integrity of the system has been compromised and the concrete walls have been modified without any compensation for the loss of the wall section, thus compromising the structural integrity of the structure. The building is Substantially Damaged as defined by the 2007 Florida Building Code, Existing Building.

The building repairs required as described in this report are in excess of the 50% limitation exacted by the requirements of the Federal Emergency Management Act (FEMA). The repairs are estimated to be approximately \$75K and the value of the building is \$92K as established by the Monroe County Property Appraiser.

The building is unsafe and should be provided with adequate barriers to prevent any entry into the building until the unsafe conditions have been remedied.

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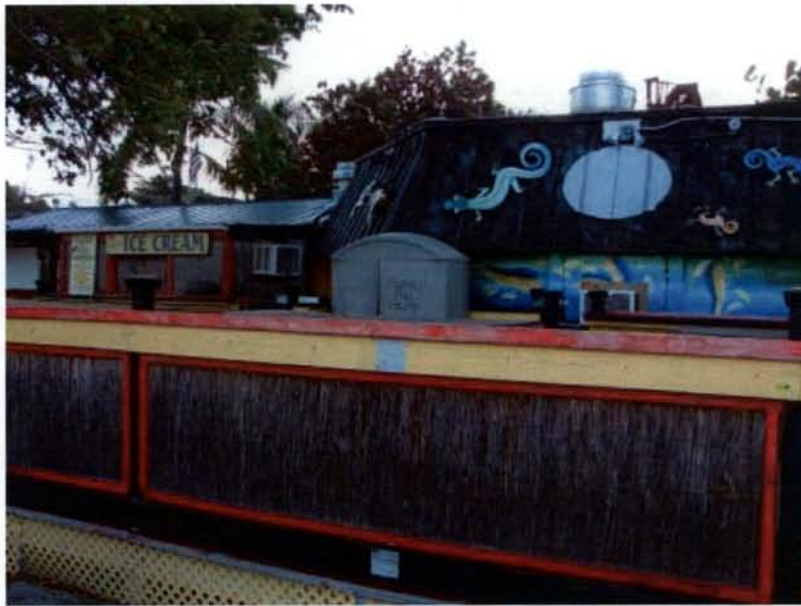
Paul R. Semmes, PE

Section 6: Photographs

**BUILDING EXTERIOR**



Picture #1



Picture #2

BUILDING EXTERIOR



Picture #3



Picture #4

ROTTED WOOD FRAMING



Picture #5



Picture #6



Picture #7



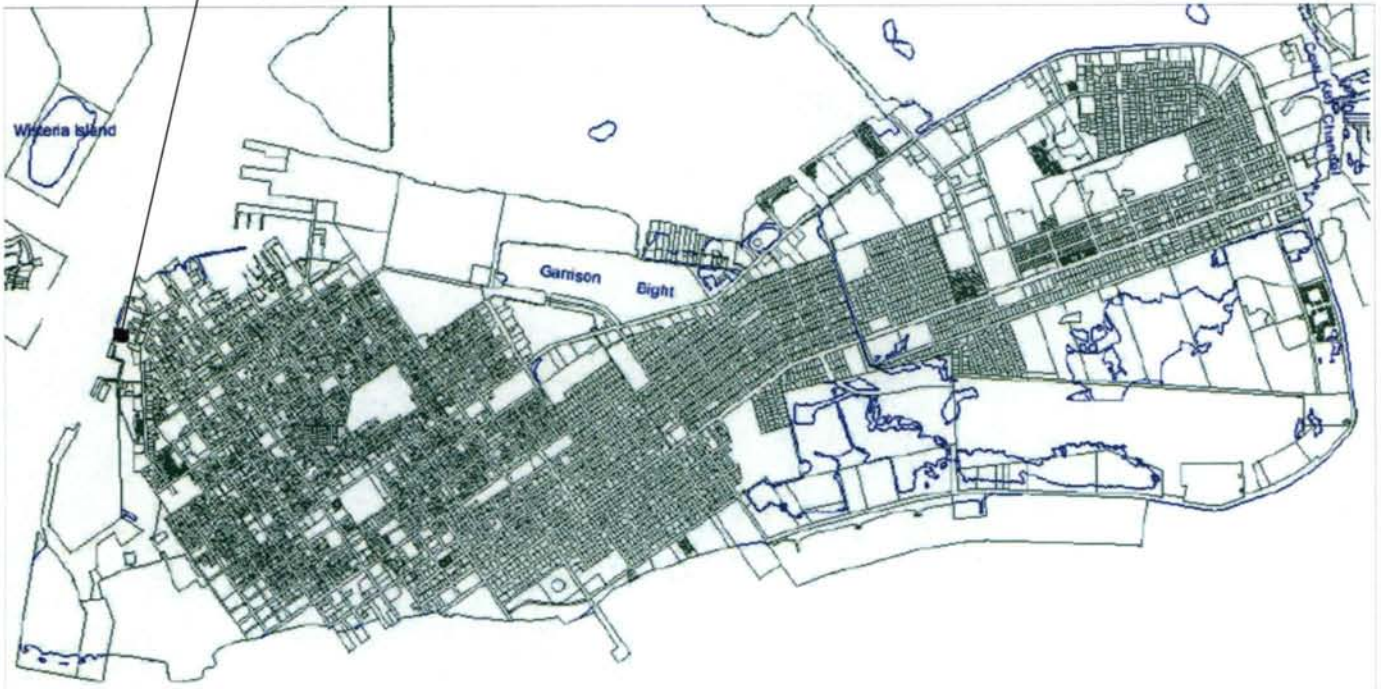
Picture #8



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SHEET: ATT-A  
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BY: EKM  
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SITE







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