

City of Cedar Key
Commission Workshop Agenda
809 6th Street
July 02, 2024, 5:00 pm

PLEASE TAKE NOTICE AND BE ADVISED, that if any interested person desires to appeal any decision of the Cedar Key Commission, with respect to any matter considered at this meeting, such interested person will need a record of the proceeding, and for such purpose, may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. Persons with disabilities requiring accommodation to participate in the meeting should contact the City Clerk at (352) 543-5132 at least 48 hours in advance to request accommodation.

1. Call to Order
2. CHW Professional Consultants, Gerry Dedenbach/Adam Gayle
Old City Hall - Technical Memorandum and Architect's Report
3. Public Comments
4. Preliminary Discussion
5. Schedule follow up workshop

Meeting Adjourned _____PM



TECHNICAL MEMORANDUM

Cedar Key City Hall

CHW PN 24-0297



To: City of Cedar Key Commission
From: Gerry Dedenbach, AICP + LEED AP / Adam Gayle, AIA
Date: June 25, 2024
RE: Cedar Key City Hall Due Diligence / Restoration Evaluation
Attendees: The Honorable Sue Colson-Mayor, Jamie McCain, Adam Gayle, and Gerry Dedenbach

1. INTRODUCTION – TASK 1

- CHW Professional Consultants (CHW) was contracted by the City of Cedar Key to perform an evaluation of the long-time City Hall structure that was severely damaged during Hurricane Idalia in August 2023.
- The property is located centrally to the downtown area; proximate to other City facilities and a mixture of residential and non-residential uses.
- The property has appropriate land use classification for the building's prior use, and the site can be utilized for continued office/professional/civic uses into the future.

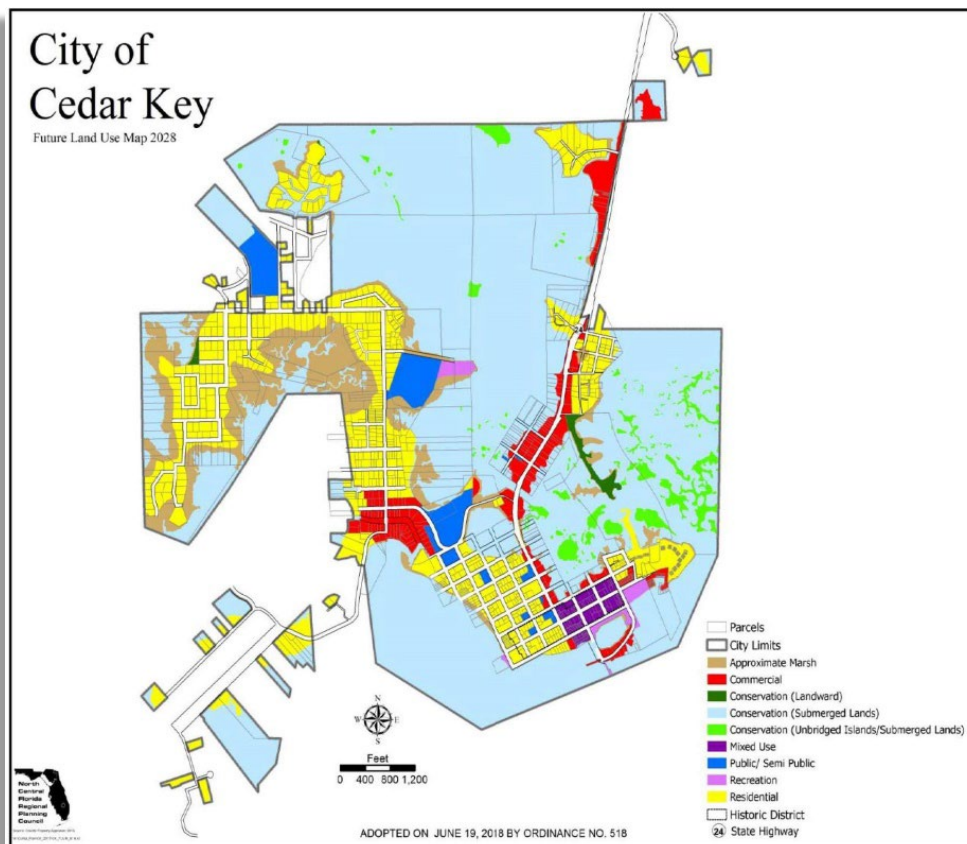


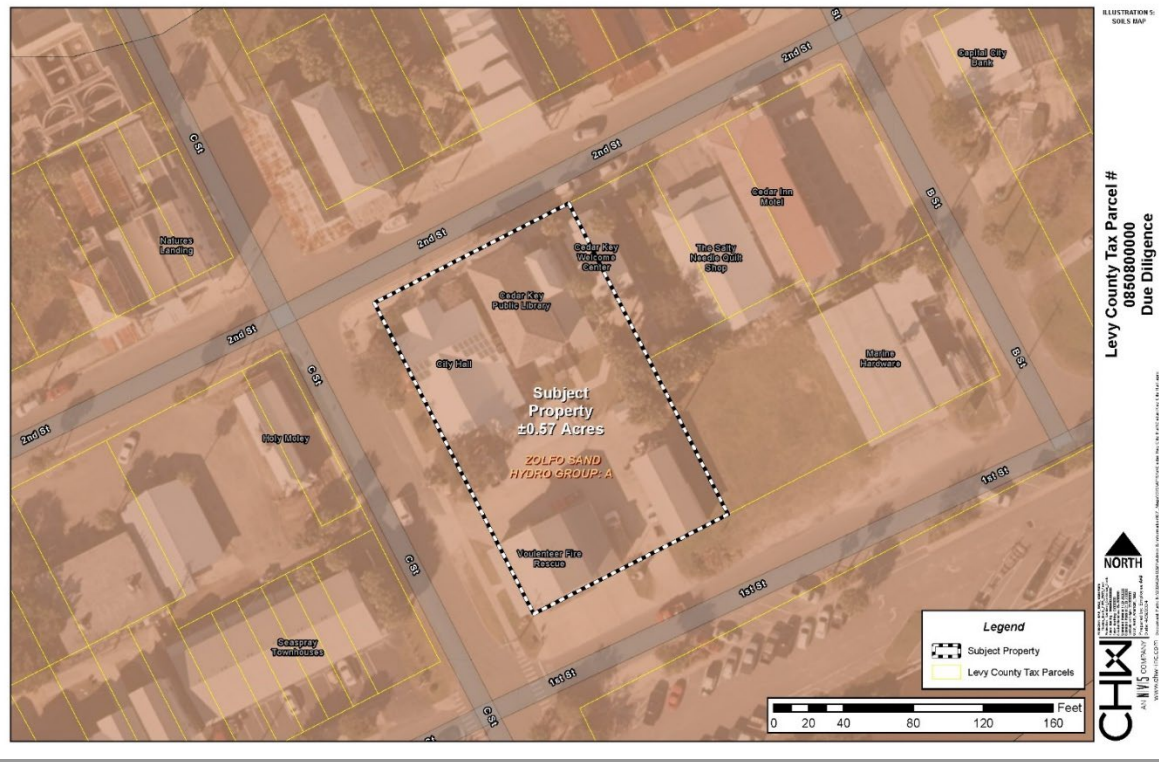
As seen in the above Context Map, the site's location on a key in the Gulf of Mexico makes it highly susceptible to storm activity and at a location where continuous efforts will be required over time to mitigate the structure, based on documented studies and historical damage from storms. During our meeting with Cedar Key's Mayor and Public Works Director, the University of Florida's Sea Level Rise Adaptation Planning Tool was shared with our office and our colleague licensed architect, Mr. Adam Gayle, AIA. Mr. Gayle's *Observation Report and Recommendations for Cedar Key Old City Hall Flooding and Foundations Issues* document, or Architect's Report, is included as the second part of this Technical Memorandum.



2. SITE VISIT

- The City Hall Building is located on a ±0.57-acre property with appropriate Land Use for prior uses, and if proposed, for continued future office/professional/civic uses. The property has the City's Mixed-Use Land Use Future Land Use (FLU) classification, which is common and shared throughout the Cedar Key downtown context area.





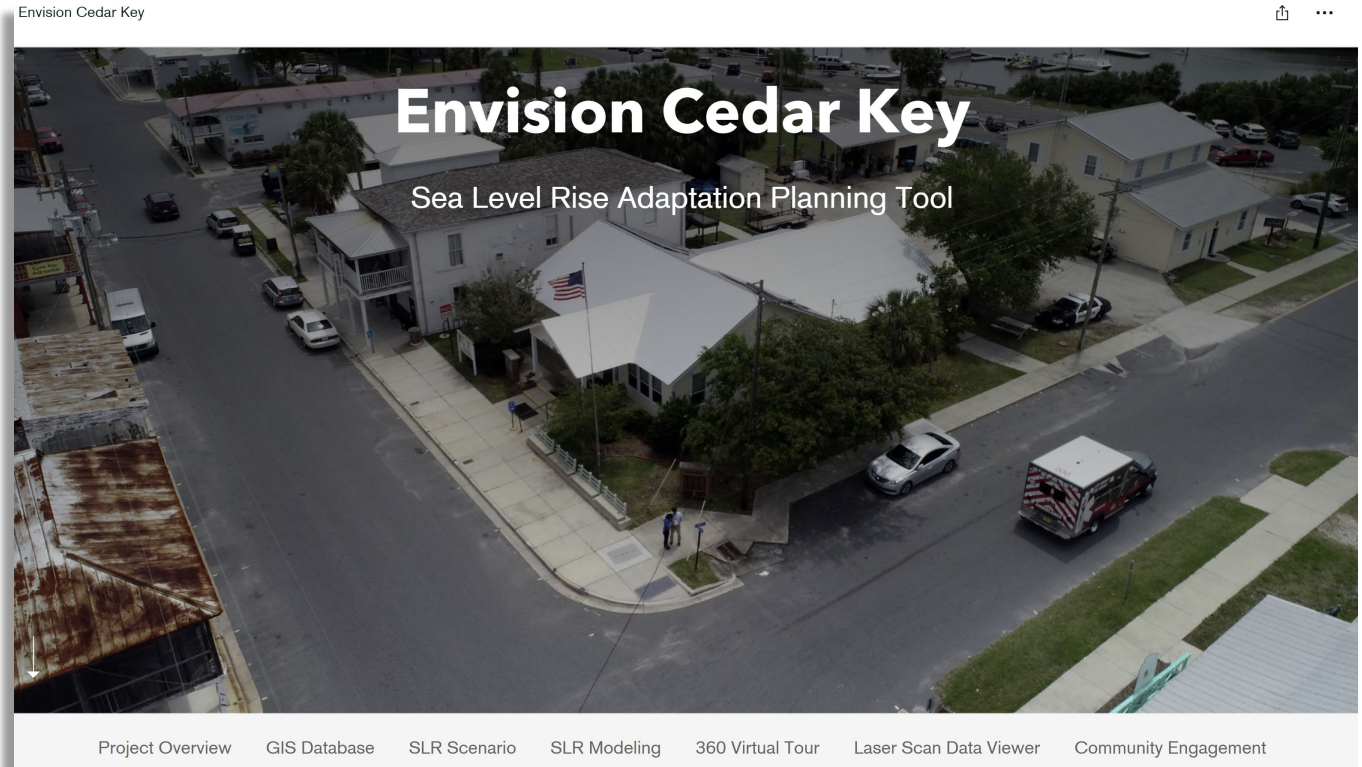
The Natural Resource Conservation Service (NRCS) and National Wetlands Inventory (NWI) depict the property having Hydrologic Group A - Zolfo Sand and having a Subtidal wetland classification, as shown in the maps above and below. The Federal Emergency Management Agency (FEMA) denotes the area as Flood Zone AE as seen in the topographic map with environmental conditions below. Topography shows the site in a four-foot (4') contour line, which is marginally above sea level. From this, it is easy to understand how the effects of storm surge have resulted in continued flooding the area and City Hall building. While raising the structure may limit future water damage, access to and from the structure remains compromised if the context area is inundated during any future flood event.



3. **SITE ANALYSIS / SITE ANALOGUES**

During the course of our discussion the Mayor and Public Works Director they shared the Envision Cedar Key – Seal Level Rise Adaptation Planning Tool, created in conjunction with the University of Florida. The Planning tool depicts the site as highly susceptible to flooding and being submerged in the near-term and long-term future.

Future potential for flooding must be a significant consideration in any decision and likely points to the site's use as a civic location, albeit one without essential structures which would be rendered inaccessible or unfunctional during crises.



The University of Florida Study and Sea Level Rise Adaptation Planning Tools depicts the area where the City Hall building is located as being entirely inundated in approximately fifty (50) years. This must be a strong consideration in the evaluation of whether or not to reinvest in either restoration, renovation, or reuse. These factors, along with the marginal condition of the building's structure points to other uses for the site being more viable in the short-term and long-term utility of the City.

From the information provided the site does not present itself as a stable, long-term viable location for municipal services and/or emergency operations, as is often associated with a municipal City Hall. The site is likely a better candidate for an adaptive reuse of a municipal or civic function, which can be utilized by all First Responders, citizens, and visitors irrespective of weather and/or storm conditions.



By the year 2100, which is seventy-six (76) years into the future, the surrounding area is projected to be underwater which an inundation level of three (3) to four (4) feet.



As shown in the above computer modeling and simulation, the National Oceanic and Atmospheric Administration (NOAA) I-H High Tide Level shows both streets and first floor of buildings submerged within the next turn of the century. NOAA is a US scientific and regulatory agency charged with forecasting weather, monitoring oceanic and atmospheric conditions, and charting the seas, amongst other responsibilities. Their data should be a strong factor in the decision-making process on whether or not to pursue any of the options contained in the Architect's Report.

Mr. Gayle's *Observation Report and Recommendations for Cedar Key Old City Hall Flooding and Foundations Issues* document presents four (4) options for the City Hall site, ranging from (i) Restoration, (ii) Re-Use, (iii) Adaptive Re-Use, and (iv) Demolish and Build New. We will be present at the July 2nd, 2024, City Commission meeting to discuss the options and provide additional photos and information.

OBSERVATION REPORT AND RECOMMENDATIONS FOR CEDAR KEY OLD CITY HALL FLOODING, STURCTURAL, AND FOUNDATION ISSUES

**DATE OF
OBSERVATION:** April 30th, 2024

OBSERVER: Adam Gayle, AIA

LOCATION: Cedar Key, FL

Overview

The Cedar Key City Hall, originally constructed in 1880 at 409 2nd Street is a kown landmark of Cedar Key and stands as a reminder of the city's rich history. However, historic 2nd recent flooding has brought to light continued concerns with its foundation, structure, and suitability for reuse. The following observation report and recommendations include an Architectural Due Diligence and cursory structural review, a description of existing building deficiencies and code concerns, and provide four (4) options for the site's future use.



Aerial View of the Site and Surrounding Context

CEDAR KEY OLD CITY HALL FLOODING, STRUCTURAL, AND FOUNDATION ISSUES

Exterior Observations:

- Indication of Animals Inhabiting Crawl Space Under Building;
- Lack of Americans with Disabilities Act (ADA) Compliant Ramps / Circulation;
- The roof appears in good condition with some small areas of water damage at fascia / soffit;
- Utilities are older, but appear to be in good, working condition; and
- Vegetation encroaching into crawl spaces – moisture/ventilation concerns.

The exterior facade appeared in acceptable condition with minor weathering and staining from the recent flooding. Small patches of discoloration were evident along the lower portions of the building - indicating water intrusion. From the building interior, light was visible at slab/wall connection, indicating locations for an air and water breach.

See following this page for additional observations.

Interior Observations

- Bottom +/-3' of all walls and floor/substrate have been removed back to wood studs/joists;
 - Insulation removed;
- Floor Joists in conditions ranging from good to poor;
 - Floor joists irregularly spaced and coupled and/or jointed at floating connections;
- Floor Joists not secured to building foundations;
- Floor Joists not properly fastened per current codes;
- Building Foundations in conditions ranging from good to poor;
 - Foundations vary from brick piers to concrete blocks to stacked timbers;
- Soils under building showing water present;
- Remnants of original building structure remain in place under existing building;
 - Some are acting as building foundations and should be structurally evaluated; and
 - Evidence of Multiple renovations and construction materials present
- ADA door clearance and circulation concerns; and
- Substantial garbage / debris under floor joists throughout building footprint.

Evidence of recent flooding was apparent throughout the interior, with water still present in soils beneath the exposed floor joists. Finishes and Substrates have been cut away from the floor and lower portions of the walls.

No signs of significant warping and buckling, however, floor joists and beams do not appear to be secured to building foundations, and building foundations appear to be in questionable condition.

See following this page for additional observations.



Beams Supporting Floor not Continuous under Joists.



Brick and Mortar in Poor Condition



Building Utilities



Condensing Units



Note: Sole or bottom plate floating on joists and irregularly spaced joists and framing throughout

Damaged Floor Joists



Damaged Insulation and Moisture Barrier



Note: No cross bracing present on lengthy joist spans

Degradation at Floor Joists



Note: No ledger or cross bracing present

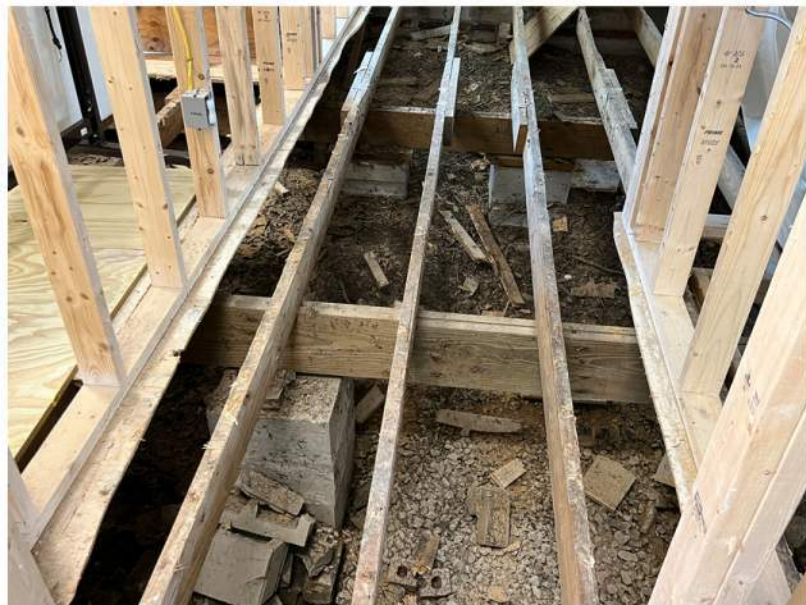
Floor Joists in Poor Condition and on Multiple Foundation Types



Floor Joists Missing Hangers - Visible Moisture Present in Soil Under Bui...



Floor Joists not Anchored to Foundations



Floor Joists not Anchored to Foundations



Floor Joists Unattached to Brick on Original Concrete Foundations



Framing between Renovation Phases



Front Elevation



Front Entry and Rails not Code - ADA Compliant



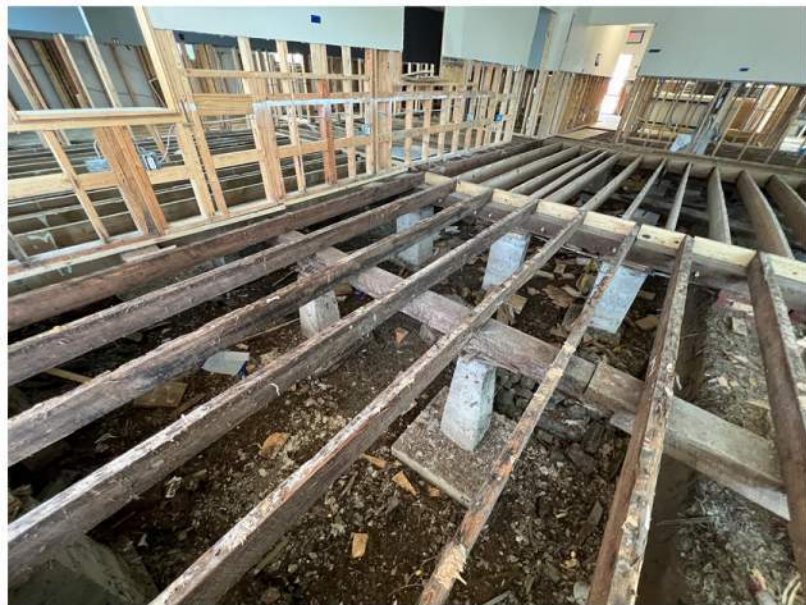
Handrail-Gaurdrail Not Code Compliant



Improperly Lapped Floor Joists



Indications of Animals Inhabiting Crawl Space



Joists not Anchored to Supports



Joists Not Connected to Brick



Minor Roof Damage at Fascia



Miscellaneous Unconnected CMU Foundations



Original Foundations Visible



Plumbing Lines not Supported



Ramp - Not ADA Compliant



Side Elevation



Siding in Visibly Acceptable Condition



Signs of Movement at Wood Beams



Utilities and Overgrown Vegetation Against Building



Water Damage to Wood

CEDAR KEY OLD CITY HALL FLOODING, STRUCTURAL, AND FOUNDATION ISSUES

Recommendations for Future Use (Options 1-4):

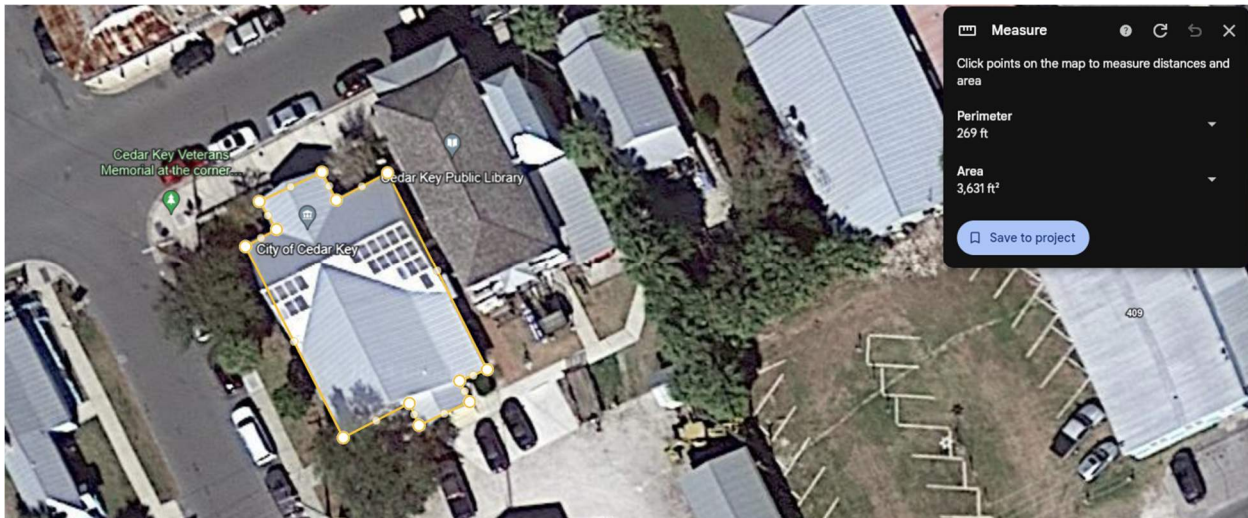
Option 1

Restore Building

1. Conduct a comprehensive structural assessment by qualified engineers to evaluate the extent of damage to the foundation and substructure.
2. Implement immediate measures to properly secure the foundation and substructure, and mitigate further water intrusion, including sealing cracks and reinforcing vulnerable areas of the building, and/or raising a portion or all of the building.
3. Develop a long-term restoration plan aimed at preserving the Historic City Hall's architectural integrity and historical significance, while ensuring its resilience to future flooding events.
4. Build back an office building similar to existing, correcting code deficiencies, repairing the foundations, and providing water mitigation system to combat future flood events.

a. Conceptual Cost Model

i.	2024 International Building Code SF Construction Costs for a Business Occupancy Building, Construction Type VB (Any Material, Unprotected) \$200/SF	
ii.	\$200 x 3600 SF =	\$ 720,000
iii.	Complete Foundation Repair	\$ 150,000
iv.	Sitework for flood mitigation	\$ 250,000
v.	Subtotal	\$1,120,000
vi.	FFE / Contingency / Inflation 20%	\$ 224,000
vii.	Total	\$1,344,000
viii.	Insurance / Bonding / Overhead 15%	\$ 201,600
ix.	Studies and other Professional Fees	\$ 150,000
x.	Project Cost	\$1,695,600 (\$471/SF)



CEDAR KEY OLD CITY HALL FLOODING, STRUCTURAL, AND FOUNDATION ISSUES

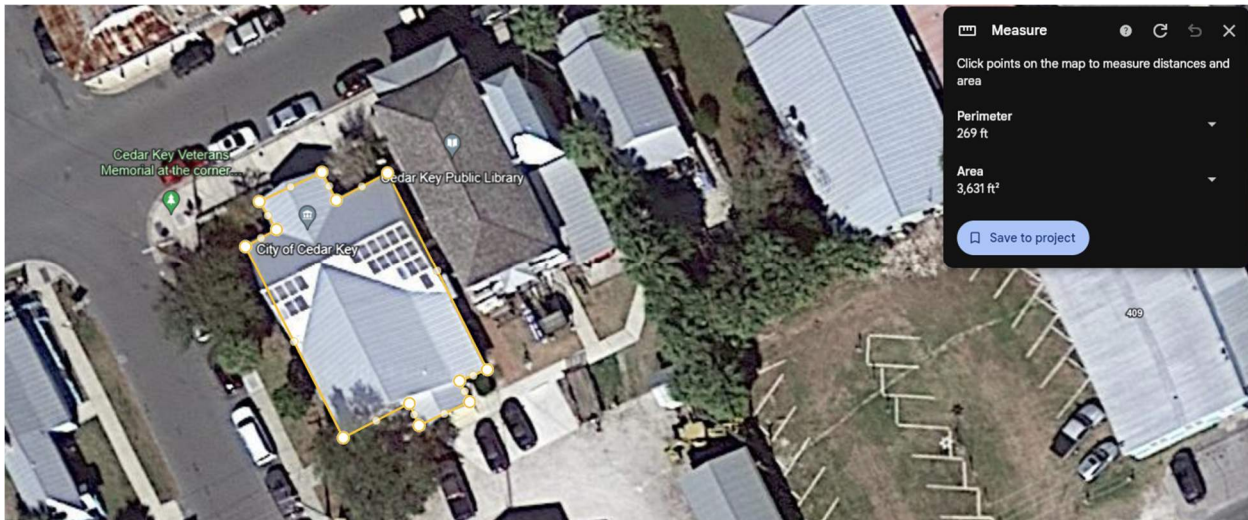
Option 2

Re-Use

1. Conduct a comprehensive structural assessment by qualified engineers to evaluate the extent of damage to the foundation and substructure.
2. Implement immediate measures to properly secure the foundation and substructure, and mitigate further water intrusion, including sealing cracks and reinforcing vulnerable areas of the building, and/or raising a portion or all of the building.
3. Develop a long-term restoration plan aimed at preserving the Historic City Hall's architectural integrity and historical significance, while ensuring its resilience to future flooding events.
5. Build back a community center, police substation, and or restrooms within existing building footprint, correcting code deficiencies, repairing the foundations, and providing water mitigation system to combat future flood events.

a. Conceptual Cost Model

i.	2024 International Building Code SF Construction Costs for an A-3 Assembly Occupancy, Construction Type VB (Any Material, Unprotected) \$177/SF	
ii.	\$177 x 3600 SF =	\$ 637,200
iii.	Complete Foundation Repair	\$ 150,000
iv.	Sitework for flood mitigation	\$ 250,000
v.	Subtotal	\$1,037,200
vi.	FFE / Contingency / Inflation 20%	\$ 207,440
vii.	Construction Total	\$1,244,640
viii.	Insurance / Bonding / Overhead 15%	\$ 186,696
ix.	Studies and other Professional Fees	\$ 150,000
x.	Project Cost	\$1,581,336 (\$439/SF)



CEDAR KEY OLD CITY HALL FLOODING, STRUCTURAL, AND FOUNDATION ISSUES

Option 3

Adaptive Reuse

1. Conduct a comprehensive existing building study to document significant building elements.
2. Remove Existing Building, Preserve Roof for reuse.
3. Develop a long-term plan aimed at ensuring the facility's resilience to future flooding events.
4. Build back an open steel substructure to support roof and Reinstall Roof.
5. In the open space below, build a small community center, public park, police substation, and/or restrooms within existing building footprint.

a. Conceptual Cost Model

i.	2024 International Building Code SF Construction Costs for an A-3 Assembly Occupancy, Construction Type VB (Any Material, Unprotected) \$177/SF, B Business Occupancy, Type VB (Any Material, Unprotected) \$200/SF, U Utility, Misc. Occupancy, Type VB (Any Material, Unprotected) \$64/SF, Using the average of these three space = \$147/SF	
ii.	\$147 x 1200 SF =	\$ 176,400
iii.	Demolition and Site Prep	\$ 150,000
iv.	Sitework for flood mitigation	\$ 250,000
v.	Subtotal	\$ 576,400
vi.	FFE / Contingency / Inflation 20%	\$ 115,280
vii.	Construction Total	\$ 691,680
viii.	Insurance / Bonding / Overhead 15%	\$ 103,752
ix.	Studies and other Professional Fees	\$ 80,000
x.	Project Cost	\$ 875,432 (\$730/SF Conditioned) (\$243/SF Under Roof)



Conceptual Structure, Including Restrooms, Police Substation, and Covered Memorial Urban Park

CEDAR KEY OLD CITY HALL FLOODING, STRUCTURAL, AND FOUNDATION ISSUES

Option 4

Demolish and Build New

1. Conduct a comprehensive existing building study to document significant building elements.
2. Remove existing building, salvage any significant building elements for reuse.
3. Develop a long-term plan aimed at ensuring the facility's resilience to future flooding events.
4. Build back a new fully code compliant, modern, resilient community center, police substation, and/or restrooms.

a. Conceptual Cost Model

i.	2024 International Building Code SF Construction Costs for a Business Occupancy Building, Construction Type IIB (Non-Combustible Material, Unprotected) \$258/SF	
ii.	\$258 x 3200 SF =	\$ 825,600
iii.	Demolition and Site Prep	\$ 150,000
iv.	<u>Sitework for flood mitigation</u>	<u>\$ 250,000</u>
v.	Subtotal	\$1,225,600
vi.	<u>FFE / Contingency / Inflation 20%</u>	<u>\$ 245,120</u>
vii.	Total	\$1,470,720
viii.	Insurance / Bonding / Overhead 15%	\$ 220,608
ix.	<u>Studies and other Professional Fees</u>	<u>\$ 150,000</u>
x.	Project Cost	\$1,841,328 (\$575/SF)



Conceptual Community and Restroom Building

Conclusion:

The most recent flooding of the Historic City Hall has exposed and exacerbated significant issues with the building's foundation (primarily that the floor structure is not secured to the foundations), posing a threat to both the structural stability of the building and the ability to easily rectify the deficiencies. While the building is unoccupied, urgent action is not required to address these concerns, although a thorough assessment by structural engineers is recommended before any rebuilding or renovation steps are considered.

Analyzing the four (4) options presented in this report from a value-to-cost perspective, there is significant expense to properly securing and repairing the building's foundations to simply put back the existing building - which would still have accessibility deficiencies and concerns.

Similarly, reusing the building shell with a simplified interior would still require significant foundation mitigation and elevated cost, and all building code and accessibility deficiencies would need to be addressed for compliance.

Completely demolishing the existing structure and building, while slightly more costly, has a relatively small project cost total, and this would provide a new, fully code and accessibility compliant, modern, resilient structure that could better withstand future flood and climate events.

The lowest-cost option would be to preserve some elements of the existing building, namely the roof, and put back a simple, open structure to create a small community urban park space that could be used as an event space, public park, public restrooms, food truck destination, or a police substation, among other facilities. This option does the most to minimize costs, provide a resilient solution, and maximize value to the community both in the immediate and long-term future.