

CITY OF MADEIRA BEACH Comprehensive Plan Data and Analysis (DRAFT)

~~~~~  
[DATE], ~~2023~~May 27, 2008



~~Prepared by~~  
~~The Gail Easley Company~~  
~~in conjunction with the~~  
~~Pinellas Planning Council~~

Data and Analysis for the  
Comprehensive Plan of  
the City of Madeira  
Beach

**(DRAFT)**

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## 4.0 DATA AND ANALYSIS

### 4.1 OVERVIEW AND RELATIONSHIP TO ~~EXISTING~~ DATA AND ANALYSIS

#### 4.1.1 Sources of Data and Analysis

The City of Madeira Beach originally adopted its Comprehensive Plan in 1999. The City adopted its Evaluation and Appraisal Report (EAR) in 2006. ~~This document updates, and updated~~ the data and analysis of the Comprehensive Plan based upon the recommendations of the EAR in 2008. Unless specifically provided and updated herein, the city will rely on the definitions provided in Chapter 163 of the Florida Statutes 9J-5, Florida Administrative Code, and the data and analysis documents from the 1999 Comprehensive Plan 2008 update.

#### 4.1.2 New Dates and Clarifications

Throughout this amendment to the City of Madeira Beach Comprehensive Plan, revisions are made to the data and analysis as well as to applicable goals, objectives, and policies to provide updates and clarifications to the names of agencies, existing intergovernmental agreements, and to bring into current time any references to past dates. Numerous revisions are made for the sake of consistent language and accessibility without any substantive change to Goals, Objective, Policies, and Strategies.

### 4.2 FUTURE LAND USE

#### 4.2.1

##### Introduction

Data and analysis for the Future Land Use Element includes an updated population projection for the new planning timeframes of 2013 and 2025. Existing land uses ~~will be are~~ inventoried inventoried, and future land use needs ~~will be are~~ projected to meet the planning timeframes. Data and analysis on coastal high hazard areas and hazard mitigation planning ~~will be are~~ discussed in the Coastal Management and Conservation Element. The infrastructure needs and services ~~will be are~~ presented for the facilities located in and serving the city. ~~The Future Land Use Element Data and Analysis dated July 20, 1999, continues in effect except as modified in the following subsections.~~

#### 4.2.2

##### Population

According to the 202000 U.S. Census, the population of Madeira Beach was 3,895 4,511. ~~The 2005 population was estimated to be 4,561 by the Pinellas County Planning Department. This is an increase of 1.1 percent since 2000.~~ The population is projected to increase only slightly, ~~by 18 people, to 4,579 by 2013 and to 4,603 by 2025~~. These trends for a very slight population growth rate are consistent with the trends described in the comprehensive plan. The factors that support this trend include the built-out character of the community and the very low amount of vacant land remaining in the city. The sources of the slight population growth are predicted to result from limited infill development of the few vacant residential lots existing in the community, ~~as well as~~ the potential for a transition of some seasonal units to full-time, year-round residences, and moderate redevelopment.

Population projections, ~~including~~ for ~~the years 2013 and~~ 2025 as the new planning

timeframes for the city, have been updated from the University of Florida Bureau of Economic and Business Research, 2021 and the 2020 U.S. Census Pinellas County information and are presented in Table 1.

Table \*1: City of Madeira Beach Total Population ~~Population Projections~~

| <del>1990</del> <u>2005</u> | <del>2000</del> <u>10</u>  | <del>2010</del> <u>3</u>    | <del>2020</del> <u>15</u>    | <del>2021 (UF BEBR Estimate)</del> <u>5</u> |
|-----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------------------------|
| <del>4,225</del> <u>561</u> | <del>4,511</del> <u>72</u> | <del>4,263</del> <u>579</u> | <u>3,895</u><br><u>4,583</u> | <del>3,886</del> <u>4,603</u>               |

Source: UF Bureau of Economic and Business Research, 2021, U.S. Census, 2020~~Pinellas County Planning Department, Pinellas County Florida: Permanent Population Projections by~~

Table \*2: Madeira Beach Future Population Estimates

| <u>2020 (US Census Population)</u> | <u>Population Change Between 2010 and 2020</u> | <u>Annual Population Decline Rate Between 2010 and 2020</u> | <u>2030 Population Estimate</u> | <u>2040 Population Estimate</u> |
|------------------------------------|------------------------------------------------|-------------------------------------------------------------|---------------------------------|---------------------------------|
| <u>3,895</u>                       | <u>-368</u>                                    | <u>-0.86%</u>                                               | <u>3571</u>                     | <u>3274</u>                     |

Source: Population estimates based on the annual population decline rate between 2010 and 2020. Jurisdiction. February 2007, and The Gail Easley Company.

#### 4.2.3 Existing and Future Land Use

An existing land use map, ~~dated~~ 2007, provides current information regarding the land uses in Madeira Beach~~the city~~. The existing land uses have been updated and are summarized below to replace the information in Section 4.2.3 of the 1999-2008 data and analysis. In addition, land needs to support the forecast population are described.

The City of Madeira Beach ~~city~~ is almost completely built-out horizontally and has only a very limited amount of vacant/undeveloped land remaining. Therefore, the land use descriptions in the comprehensive plan have remained largely unchanged, with minor changes in the distribution of acreage among individual land uses. Redevelopment and ~~the a moderate~~ increase in the number of mixed-use developments is anticipated for the future.

#### A. Existing Land Use

Existing land uses are shown in Table 23.

Table \*23: Existing Future Land Use,~~2007~~

| Land Use <u>Category</u> <del>Description</del>               | Acres                          | Percent <sup>1</sup>       |
|---------------------------------------------------------------|--------------------------------|----------------------------|
| <u>Residential Urban</u> <del>Single-family Residential</del> | <u>166.36</u> <del>178.2</del> | <u>34%</u> <del>39.9</del> |

Residential Medium Duplex/Triplex 91.6338.5 18.7%8.6

|                                                     |             |          |
|-----------------------------------------------------|-------------|----------|
| <u>Residential/Office/Retail Multifamily</u>        | 18.0465.9   | 3.7%14.7 |
| <u>Resort Facilities Medium Commercial</u>          | 34.7467.1   | 7.1%15.0 |
| <u>Commercial General Public/Semi-public</u>        | 34.1930.5   | 7%6.8    |
| <u>Planned Redevelopment-Mixed Use Agricultural</u> | 80.090.3    | 16.4%0.1 |
| <u>Recreation/Open Space</u>                        | 14.0729.6   | 2.9%6.6  |
| <u>Preservation Vacant</u>                          | 23.049.6    | 4.7%2.1  |
| <u>Miscellaneous</u>                                | 0.3         | 0.1      |
| <u>Conservation/Preservation</u>                    | 22.4        | 5.0      |
| <u>Marinas</u>                                      | 4.5         | 1.0      |
| <u>Subtotal</u>                                     | 446.9       | 100.0    |
| <u>Institutional Interior Water</u>                 | 27.260.00   | 5.6%NA   |
| <u>Transportation/Utility Right-of-Way</u>          | 0.15123.0   | 0.03%NA  |
| <u>Total</u>                                        | 489.58569.9 | 100%     |

Source: Pinellas County Planning Department and Pinellas Planning Council, 2007.

<sup>1</sup> Percentage of land area excluding interior water and right of way Pinellas Planning Council y

1. Residential Land Use. The land use character of the city remains predominantly residential, with single-family detached housing ~~constituting-occupying~~ the largest amount of acreage and multi-family having the largest number of units. Of the 446.9 acres that comprise the city, 282.6 acres (63.2%) are devoted to residential land uses. Approximately one-third of the housing in Madeira Beach is single-family detached, with the other two-thirds comprised of duplex<sub>2</sub> ~~or~~ triplex<sub>2</sub> and multiple family dwellings.
2. Commercial Land Use. In total, commercial land uses ~~consist-occupy~~ 67.1 acres or 15.0 percent of the total land area. The type of commercial activity found in the city ~~can be described as being of a~~ is generally retail, restaurant, and services for tourists and visitors. There is also a small amount of land associated with ~~marine~~ marine-related activities and commercial fishing businesses.

Commercial uses are concentrated along Gulf Boulevard and on 150th Avenue with significant redeveloping nodes at Madeira Way, the northern anchor and Johns Pass Village, the southern anchor. These commercial areas serve ~~not only~~ the needs of the ~~residents-~~ citizens of the ~~City of Madeira Beach~~ city ~~but also~~ and residents of surrounding communities<sub>2</sub> ~~as well as~~ tourists<sub>2</sub> and visitors.

3. Agricultural (Fishing) Land Use. There is only a small amount, 0.3 acres, of agricultural

land use located within the city. This area is associated with the commercial fishing operations and water-dependent recreational uses.

4. Recreation/Open Space Land Use. Within the city, there is a total of 29.6 acres of recreation/open space land which equals that occupies 6.6 percent of the land area. This acreage is comprised of several parks with beach access to the Gulf of Mexico along Gulf Boulevard, a large city park fronting on Boca Ciega Bay in the area of the municipal complex, a smaller city park along 150<sup>th</sup> Avenue, Teardrop Park on Crystal Island, and several street ends along Boca Ciega Bay.
5. Conservation/Preservation Land Use. Within the ~~City of Madeira Beach~~city, 22.4 acres comprising 5.0 percent of the land area contains is conservation/preservation land. This includes significant strips of land along the Gulf of Mexico frontage and an island in Boca Ciega Bay just north of John's Pass.
6. Marinas. A commercial marina is located on 150th Avenue, consisting of 4.5 acres or about 1.0 percent of the land area of the city.
7. Public/Semi-Public Land Use. Public/Semi-Public land uses comprise only 30.5 acres or 6.8 percent of the land area of the city. The primary parcel in this category serves as the location for the Madeira Beach Elementary and Middle Schools and the Madeira Beach Elementary School.
8. Vacant/Undeveloped Land. As described above, the City of Madeira Beach is a mostly primarily built-out community. Only 9.6 acres or 2.1 percent of the city land area is vacant. The vacant property that does remain is made up of a few residential lots and several vacant parcels located along commercial corridors. There is no concentration of these vacant parcels as they are scattered within the city.
109. Historic Resources. There are no historic resources identified by the City of Madeira Beach. One building in the city, tThe Archibald Park Snack Shack, has been assigned the Master Site File Inventory Number 8PI11581 as of March 1, 2007. However, there are no criteria requiring a demonstration of historic significance in order to be added to the Master Site File. While this building has been listed in the inventory, the city City has established no preservation or maintenance policy for the protection of this building.

#### B. Future Land Use Needs

There have been few land use plan amendments since the previous EAR-based amendments in 1999 and the land use pattern in Madeira Beach has remained stable. There has been no increase in allowed residential density citywide; the trend in local redevelopment activities has resulted in fewer dwelling units rather than more. This reduction in density may be due, in part, to the establishment and enforcement of the county coastal construction control line and enforcement of comprehensive plan densities.

The ~~City of Madeira Beach~~city is almost completely built-out. Redevelopment of previously developed land is, and will continue to be, the focus of the comprehensive plan and consistent with the land development regulations.

~~The projected population growth for the city through 2013 is only an additional 18 residents. It is anticipated that this slight population growth will result from limited infill development of the few vacant residential lots existing in the community, as well as the potential for a transition of some seasonal units to full-time, year-round residences and moderate redevelopment.~~

~~The city, through the EAR, has identified three Future Land Use Element (FLUE) policies that will be changed. These are described in further specific detail in Section 4.2.10 below. One of these policies is FLUE Objective 1.7, which directs that development activities will maintain the existing character of Madeira Beach. The words “existing character” may refer to small—bungalows, cottages, mom and pop motels, strip commercial, and single-family suburban subdivision homes that were prevalent prior to 1999. The economic pressures evident between 2000 and 2005 do not support the continuance of those types of structures or uses. Many older residential units do not comply with Federal Emergency Management Act (FEMA) building and elevation requirements that are currently in effect for most remodeled, and all new, residential units. Other problems with existing development include the lack of pervious or landscaped open areas and commercial strip centers that are not easily accessible by pedestrians.~~

~~There is a need for Future Land Use Map (FLUM) categories that encourage mixed-use development on the same site so that tourist accommodations may have on-site amenities for their guests. A land use category, and associated standards, that favors transient accommodations rather than the development of permanent dwelling units is also needed. Two particular areas within the city may be are considered as focal areas, or anchors, and thus subject to more specific planning strategies. These are Madeira Way, the northern anchor and Johns Pass, the southern anchor.~~

~~Anticipated r Redevelopment of several properties in the Madeira Way vicinity relates to the most recent are the result of action taken by the Board of Commissioners to proceed with a redevelopment land use designation for the area. As envisioned within the master plan a redevelopment plan will be has been initiated developed for the area generally bounded by 150th Avenue, Gulf Boulevard, 153rd Avenue, and Boca Ciega Bay. This designation will allow ed the community to stipulate particular development goals and approaches for this area that may include mixed-use development and design guidelines that will to enhance the area as a town center and foster a sense of place. Particular goals may include keeping a grocery store on the island and promoting tourist dwellings, hotels, or mixed-use projects rather than condominiums. The redevelopment area plan is intended to develop a vision for this area, including the public properties at City Hall, Rex Place, and the Gulf Beaches Public Library. The area plan also serves as the technical basis for an amendment to designate the area with a Planned Redevelopment – Mixed Use land use category.~~

### ~~C. Support for Specific Policy Changes~~

~~Objective 1.5 in the Future Land Use Element describes the character of residential development~~

~~as “nautical, beach community, family-oriented, residential...” The objective is proposed for revision to remove the word “nautical”. There are no design guidelines to review~~

~~whether a neighborhood is nautical. The other terms are more generalized planning concepts, which are easier to maintain and have been and will continue to be followed in the community.~~

~~Objective 1.14 establishes annexation policy for the city. The city is not proactive in pursuing annexation but will consider and accept voluntary annexations. The objective is reworded to more accurately reflect city intent.~~

#### 4.2.4 Coastal High Hazard Area

~~An updated map, CM-1 of the new definition of t~~ The coastal high hazard areas (CHHA) based on the SLOSH model is provided in the Conservation and Coastal Management Element. The City ~~of Madeira Beach~~ will continue to use the Forward Pinellas Pinellas Planning Council Countywide Plan Rule that defines the CHHA for regulatory purposes. ~~The boundary line established for such regulatory purposes is in the process of being renamed the Coastal Storm Area. This~~ The Coastal Storm Area consists of the area within the CHHA, the area within the velocity zone or Zone V, areas that are surrounded by the CHHA, and islands that are connected to the mainland by bridges or causeways. The CHHA boundary (Coastal Storm Area) as adopted by the Forward Pinellas Pinellas Planning Council and the Countywide Planning Authority is legally binding on the ~~city~~ City. This line is depicted on the FLUM-6.1e Madeira Beach Coastal High Hazard Area Map (Map LU-4) and is the boundary line used ~~in to~~ determining whether increases in density or intensity are appropriate.

#### 4.2.5 Electric Distribution Substations

There is currently one electric substation within the city and no vacant parcels large enough to accommodate a new substation. However, consistent with State-state law, the ~~city will~~ adopt comprehensive plan has a policy that ensures that new substations are permissible in all future land use plan categories except Preservation. State law provides that electric substations may be excluded from preservation, conservation, and historic preservation categories. ~~The city does implement a Preservation land use category. Therefore, new electric substations must be permissible in all land use categories in the city except Preservation. A new policy is proposed to recognize the requirements of state law.~~

#### 4.2.6 Open Space, Landscaping, Redevelopment, and View Corridors

~~The City of Madeira Beach has identified the issue of open space, in the form of view corridors, as an important element for consideration during redevelopment. Specifically, the city seeks to~~ Include adopted an objective to ~~address this desire to~~ preserve view corridors by keeping them clear of buildings, accessory structures, and structured parking. Other advantages of providing-requiring view corridors during redevelopment include reduced impervious surfaces, increased pedestrian access, and improved on-site stormwater management.

Developers are able to provide view corridors in the form of increased landscaping and other site features through the flexibility offered in the planned development district. This strategy to protect view corridors is especially important along Gulf Boulevard to break up the continuous “wall” effect along the Gulf of Mexico. ~~However, and~~ as redevelopment occurs throughout the city, the views of Boca Ciega Bay are also ~~becoming~~ increasingly valuable and worthy of protection.

#### 4.2.7 Consistency with Forward Pinellas PPC Countywide Plan Rules

~~The County is currently revising their comprehensive plan and the City anticipates it will make subsequent modifications to the comprehensive plan to accord with changes resulting from the County's effort, once adopted, if consistent with the community's adopted vision. In January 2007 the Pinellas Planning Council issued a report entitled *Review of Local Government Future Land Use Plans and Land Development Regulations for Consistency with the Countywide Rules*. Four (4) items were identified for Madeira Beach regarding consistency of its comprehensive plan with the Countywide Plan Rules. The consistency requirements are identified below together with an explanation of the amendment needed to ensure consistency.~~

- ~~• The definition of density does not clearly exclude public rights of way and submerged land from density calculations. The calculation of existing density that is shown in the discussion of existing land use has been adjusted to ensure that rights of way and submerged lands are not included.~~
- ~~• ~~§~~ The comprehensive plan contains a definition for Floor Area Ratio (FAR)~~
- ~~• calculations that appear to impermissibly include rights of way and submerged lands. The definition is adjusted below.~~
- ~~• ~~§~~ The comprehensive plan glossary contains a definition for Impervious Surface Ratio (ISR)~~
- ~~• that appears to impermissibly include rights of way and submerged lands. The definition is adjusted below.~~
- ~~• ~~§~~ Locational characteristics for the land use categories in the Countywide Plan Rules are not~~
- ~~• specifically included in the land use categories described for Madeira Beach. The policies~~
- ~~• describing the land use categories are being modified to include the more detailed description of locational characteristics.~~

#### 4.2.8 Hazard Mitigation

The Pinellas County Local Mitigation Strategy (LMS) provides ~~an analysis~~ analyses of vulnerability to various types of hazards. ~~Madreia Beach~~The city has a high vulnerability to coastal flooding and coastal erosion. The city has a high vulnerability to minor and major ~~hurricane~~tropical storms. According to the ~~Local Mitigation Strategy~~LMS, the probability for hurricanes in Pinellas County as a whole is high, and higher surges ~~than indicated by the Saffir/Simpson Hurricane Scale~~ are expected ~~than indicated by the Saffir/Simpson Hurricane Seale~~.

The ~~local mitigation strategy~~LMS establishes goals for public education, protection of property and infrastructure, and ~~comprehensive~~ coordination of mitigation efforts. ~~Appendix A is an excerpt from the local mitigation strategy listing the goals and objectives of the strategy. Additional objectives and policies are contained in t~~The Conservation and Coastal Management Element and the Intergovernmental Coordination Element ~~of the comprehensive plan contain objectives and policies~~ for consistency with the goals and objectives of the ~~mitigation strategy~~LMS. ~~Some objectives and policies in the Future Land Use Element now address mitigation and will be relocated to the Conservation and Coastal Management Element.~~

~~The Tampa Bay Regional Hurricane Evacuation Study addresses the counties of the region but does not organize data by municipality.~~ For purposes of coordinating evacuation activity, however, the ~~city~~ City will continue to coordinate with Pinellas County Emergency Management regarding voluntary and mandatory evacuations.

People with special needs may register with the Madeira Beach Fire Department or the Pinellas County Emergency Management Department. This registration places a person in the database. In an emergency, such as an evacuation, a bus is provided to transport individuals with special needs to a shelter. There are no group homes or mobile homes identified within the city. There are no nursing homes or hospitals within the city.

Objectives and policies pertaining to hurricane evacuation are updated to ensure consistency with the ~~2006 hurricane study~~ 2022 Comprehensive Emergency Management Plan and coordination with countywide emergency management requirements.

All objectives and policies pertaining to hazard mitigation and hurricane evacuation ~~are being~~ have been consolidated into the Conservation and Coastal Management Element.

#### 4.2.9 Revisions to ~~the Glossary~~ Definitions

The glossary of the comprehensive plan is not adopted, but does provide essential definitions for understanding terms in the plan. The following revised definitions are provided to meet requirements for consistency with the Pinellas Planning Council Countywide Plan Rules and to provide additional definitions desired by the city.

Ancillary Non-residential Use – Off-street parking, drainage retention areas, and open space buffer areas for adjacent, contiguous, non-residential uses.

Coastal Storm Area – the area that includes the Coastal High Hazard Area, the Tom Stuart Causeway and land areas connected to the mainland of Pinellas County by the causeway, any area surrounded by the CHHA or by the CHHA and a body of water, and all areas located within the Velocity Zone, or Zone V, as designated by the Federal Emergency Management Agency.

Density – The measure of permitted residential development expressed as a maximum number of dwelling units per gross acre of land area, excluding public road rights-of-way and submerged lands.

Floor Area Ratio (~~FAR~~ Intensity) – A measurement of the intensity of building development on a site. A floor area ratio is the relationship between the gross floor area on a site and the gross land area. The FAR is calculated by adding together the gross floor areas of all buildings on the site and dividing by the gross land area.

Impervious Surface Ratio (ISR) – A measure of the intensity of hard surfaced development on a site. An impervious surface ratio is the relationship between the total impervious surface area on a site and the gross land area. The ISR is calculated by dividing the square footage of the area of all impervious surfaces on the site by the square footage of the gross land area.

#### 4.2.10 Regionally Significant Resources and Facilities

~~In the evaluation and appraisal report, one recommendation addressed the recognition of regionally significant resources and facilities in the Madeira Beach Comprehensive Plan.~~

The Tampa Bay Regional Planning Council Strategic Regional Policy Plan identifies the following regionally significant resources and facilities: coastal barrier islands, ~~which that~~ include the majority of Madeira Beach; Tom Stuart Causeway) as a hurricane evacuation route; Gulf beaches; Boca Ciega Bay; Gulf of Mexico; and Gulf Boulevard. The comprehensive plan already contains sufficient policy guidance to address protection of natural resources, access to beaches and surface waters, and hurricane evacuation. No additional objectives or policies are needed to address the presence of these regionally significant resources and facilities. Florida Statutes Section 380.093 requires the identification and inventory of critical assets. Pinellas County is in the process of conducting a statutorily-compliant countywide Vulnerability Assessment to satisfy the statute.

### 4.3 ~~TRANSPORTATION~~ MOBILITY

#### 4.3.1 Road Facilities Located in Madeira Beach

Madeira Beach has two State Roads that cross through the municipal boundaries. Gulf Boulevard (SR 699) is the main North-South Corridor in Madeira Beach. Within Madeira Beach, Gulf Boulevard (SR 699) is Signalized Arterial Road with 4 travel lanes and a divided median. Tom Stuart Causeway/150th Ave (SR 666) is the main East-West Corridor in Madeira Beach. From the boundary of Madeira Beach to the intersection of Duhme Road, Tom Stuart Causeway/150th Ave (SR 666) has 6 travel lanes and a divided median. From the intersection of Duhme Road to the intersection of Gulf Boulevard (SR 699), Tom Stuart Causeway/150th Ave (SR 666) has 4 travel lanes and a divided median. Both sections of Tom Stuart Causeway/150th Ave (SR 666) are signalized arterial roads.

In 2019 and 2021, Forward Pinellas released Annual Level of Service Reports related to state and county roads within Pinellas County. Gulf Boulevard (SR 699) has a Level of Service (LOS) of ~~a-D~~, ~~which that~~ is acceptable for an arterial road in an urbanized area. Gulf Boulevard is not projected to have capacity issues. Tom Stuart Causeway (SR 666) has a Level of Service (LOS) of ~~a-C~~. A Level of Service (LOS) of ~~a-C~~ is reasonable for an arterial road. Tom Stuart Causeway (SR 666) is not foreseen to have capacity issues.

Table 4: 2018 Annual Average Daily Traffic (AADT) And Level of Service (LOS)

Gulf Boulevard (SR 699)

| <u>Facility Section</u>                                | <u>Facility Type</u>       | <u>Road Type</u> | <u>Length (Miles)</u> | <u>Annual Average Daily Traffic (AADT)</u> | <u>Peak Volume</u> | <u>Peak Hour Capacity</u> | <u>Facility Level of Service (LOS)</u> |
|--------------------------------------------------------|----------------------------|------------------|-----------------------|--------------------------------------------|--------------------|---------------------------|----------------------------------------|
| <u>Treasure Island Causeway-to-Tom Stuart Causeway</u> | <u>Signalized Arterial</u> | <u>4D</u>        | <u>2.95</u>           | <u>23,950</u>                              |                    |                           | <u>D</u>                               |
| <u>Tom Stuart Causeway-to-Park Boulevard</u>           | <u>Signalized Arterial</u> | <u>4D</u>        | <u>3.85</u>           | <u>17,658</u>                              |                    |                           | <u>D</u>                               |

Tom Stuart Causeway/150th Ave (SR 666)

| <u>Facility Section</u>                 | <u>Facility Type</u>       | <u>Road Type</u> | <u>Length (Miles)</u> | <u>Annual Average Daily Traffic (AADT)</u> | <u>Facility Level of Service (LOS)</u> |
|-----------------------------------------|----------------------------|------------------|-----------------------|--------------------------------------------|----------------------------------------|
| <u>Seminole Boulevard-to-Duhme Road</u> | <u>Signalized Arterial</u> | <u>6D</u>        | <u>0.53</u>           | <u>30,000</u>                              | <u>C</u>                               |
| <u>Duhme Road-to-Gulf Boulevard</u>     | <u>Signalized Arterial</u> | <u>4D</u>        | <u>0.89</u>           | <u>30,000</u>                              | <u>C</u>                               |

Table 5: 2020 Annual Average Daily Traffic (AADT) And Level of Service (LOS)

Gulf Boulevard (SR 699)

| <u>Facility Section</u> | <u>Facility Type</u>       | <u>Road Type</u> | <u>Length (Miles)</u> | <u>Annual Average Daily Traffic (AADT)</u> | <u>Facility Level of Service (LOS)</u> |
|-------------------------|----------------------------|------------------|-----------------------|--------------------------------------------|----------------------------------------|
| <u>Treasure Island</u>  | <u>Signalized Arterial</u> | <u>4D</u>        | <u>2.95</u>           | <u>21,500</u>                              | <u>D</u>                               |

|                                              |                            |           |             |               |          |
|----------------------------------------------|----------------------------|-----------|-------------|---------------|----------|
| <u>Causeway-to-Tom Stuart Causeway</u>       |                            |           |             |               |          |
| <u>Tom Stuart Causeway-to-Park Boulevard</u> | <u>Signalized Arterial</u> | <u>4D</u> | <u>3.85</u> | <u>17,011</u> | <u>D</u> |

#### Tom Stuart Causeway/150th Ave (SR 666)

| <u>Facility Section</u>                 | <u>Facility Type</u>       | <u>Road Type</u> | <u>Length (Miles)</u> | <u>Annual Average Daily Traffic (AADT)</u> | <u>Facility Level of Service (LOS)</u> |
|-----------------------------------------|----------------------------|------------------|-----------------------|--------------------------------------------|----------------------------------------|
| <u>Seminole Boulevard-to-Duhme Road</u> | <u>Signalized Arterial</u> | <u>6D</u>        | <u>0.53</u>           | <u>25,000</u>                              | <u>C</u>                               |
| <u>Duhme Road-to-Gulf Boulevard</u>     | <u>Signalized Arterial</u> | <u>4D</u>        | <u>0.89</u>           | <u>25,000</u>                              | <u>C</u>                               |

#### 4.3.2 Pedestrian and Bicycle Infrastructure

Table 6: Pedestrian and Bicycle Infrastructure

#### Gulf Boulevard (SR 699)

| <u>Facility Section</u>                                | <u>Bicycle Infrastructure</u>                          | <u>Pedestrian Infrastructure</u>           | <u>Sidewalk Width (Feet)</u> |
|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------|------------------------------|
| <u>Treasure Island Causeway-to-Tom Stuart Causeway</u> | <u>Designated Bike Lanes On Both Sides of Corridor</u> | <u>Sidewalks on Both Sides of Corridor</u> | <u>4</u>                     |
| <u>Tom Stuart Causeway-to-Park Boulevard</u>           |                                                        | <u>Sidewalks on Both Sides of Corridor</u> | <u>4</u>                     |

#### Tom Stuart Causeway/150th Ave (SR 666)

| <u>Facility Section</u>                 | <u>Bicycle Infrastructure</u> | <u>Pedestrian Infrastructure</u>           | <u>Sidewalk Width (Feet)</u> |
|-----------------------------------------|-------------------------------|--------------------------------------------|------------------------------|
| <u>Seminole Boulevard-to-Duhme Road</u> | <u>None</u>                   | <u>Sidewalks on Both Sides of Corridor</u> | <u>4</u>                     |
| <u>Duhme Road-to-Gulf Boulevard</u>     | <u>None</u>                   | <u>Sidewalks on Both Sides of Corridor</u> | <u>4</u>                     |

#### 4.3.3 Public Transit

Pinellas Suncoast Transit Authority (PSTA) serves Madeira Beach with the Suncoast Beach Trolley and Route 68. The Suncoast Beach Trolley connects Madeira Beach with the rest of the barrier island communities in Pinellas County and to the Park Street Terminal in downtown Clearwater. The Suncoast Beach Trolley connects the Madeira Beach Town Center Activity Center with other Activity Centers like the Treasure Island Downtown ~~Special Area Plan~~, Clearwater Beach by Design, St. Pete Beach Community Redevelopment Area ~~Plan~~, and Clearwater Downtown Redevelopment ~~Plan~~ Area. Park Street Terminal in downtown Clearwater functions as a transit hub that connects the Suncoast Beach Trolley with various Core, Frequent Local, Supporting Local, and Trolley PSTA routes. In St. Pete Beach, the Suncoast Beach Trolley will connect with the SunRunner Bus Rapid Transit, ~~which~~ that will provide high frequency bus rapid transit service between St. Pete Beach and downtown St. Petersburg. The Suncoast Beach Trolley is PSTA's sixth busiest route with 585,183 total trips in 2019 (PSTA, 2020). The Suncoast Beach Trolley currently operates with 30-minute headways seven (7) days a week, making it one of PSTA's more frequent routes (PSTA, 2020).

Route 68 is a Supporting Local route that serves as a connection between the transit hub at Tyrone Square Mall to Madeira Beach Town Center, and John's Pass Village. The transit hub at Tyrone Square Mall is served by twelve bus routes, ~~which~~ that connect ~~it~~ the transit hub to the rest of Pinellas County. Route 68 serves the Tyrone Activity Center, and Madeira Beach Town Center. Route 68 is ~~their~~ PSTA's 32nd busiest route with 64,580 total trips in 2019. Route 68 operates with 60-minute headways (PSTA, 2020).

Within the proposed John's Pass Village Activity Center, there are ~~five~~ five (5) existing bus stops. One (1) stop is exclusively served by Route 68, one (1) stop is exclusively served by the Suncoast Beach Trolley, and three (3) stops are served by both routes. These three (3) collaborative bus stops have nearby crosswalks to allow ~~for~~ riders to safely cross the ~~street~~ Gulf Boulevard to access the stops. While all three (3) bus stops have benches, only two have a bus shelter.

PSTA's FY 2021-2030 Transit Development Plan (TDP) proposes to expand the frequency of service for both routes that serve Madeira Beach (the Suncoast Beach Trolley and Route 68). ~~The~~ Under the TDP, the Suncoast Beach Trolley would have 15-minute headways (PSTA, 2020). Increasing the frequency of service to 15 minutes would ~~help make~~ increase the attractiveness of using public transit in Madeira Beach ~~more attractive~~, since ~~riders~~ the public would have minimal wait times for the next Trolley. Tourists staying in nearby beach communities along Gulf Boulevard would be more ~~encouraged~~ enabled to ride the Suncoast Beach Trolley to Madeira Beach, which would in turn reduce the vehicular mobility pressure on existing roads and parking facilities.

PSTA would like to increase service for Route 68 with 30-minute headways for weekdays and 60-minute headways for weekends (PSTA, 2020). Doubling the frequency of service for Route 68 could potentially raise weekday ridership by 85.8% in PSTA's Optimal Plan Scenario (PSTA, 2020). Increasing the service frequency for Route 68 would provide the public—and particularly the transit-dependent ~~riders~~ public—and ~~choice riders~~ from Pinellas County's inland communities better access to Madeira Beach for recreation and employment ~~from Pinellas~~.

County's inland communities.

#### 4.3.4 Waterways

The Forward Pinellas Waterborne Transportation Committee is having requested PSTA to study expanding ferry service in the Tampa Bay Metro Area. Forward Pinellas is developing a revised waterborne transportation section in their Advantage Pinellas: Long Range Transportation Plan. In their System Plan Vision, there are two routes proposed to connect to John's Pass Village. The North Intracoastal Route that would travel from North Beach Clearwater Marina with stops at Sand Key, Belleair Bluffs, Indian Rocks Beach, and John's Pass Village. The South Intracoastal Route would travel from John's Pass Village and connect to Jungle Prada, Treasure Island, and St. Pete Beach. John's Pass Village is the fifth highest scoring waterborne stop in the Proposed Countywide Waterborne Policy Framework. Any proposed route in the System Vision Plan would require a local funding match for capital and operating expenses.

### 4.4 HOUSING

#### 4.4.1 Inventory and Analysis

##### A. Housing Units by Type

Between 1990 and ~~2000~~2020, the housing within the city has changed ~~very little~~ in terms of numbers of units as well as in the distribution of single-family versus multifamily units. Over the ~~three (3) decade period~~, the total number of units has increased by ~~183~~386 units to a total of ~~3,971~~4,174 in ~~2000~~2020. During this same time period, the distribution of single-family units ~~decreased~~increased from 37 percent to ~~33~~38 percent while the multi-family units showed a corresponding ~~increase~~decrease from 63 percent to ~~67~~60 percent.

Table ~~\*37~~: Madeira Beach Housing  
Units by Type, ~~1990-2020~~2000\*

| Unit Types                       | Madeira Beach<br><del>Pinellas County</del> **                                          |                                                                                          |                                                                                         |                                                                                          |
|----------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|                                  | <u>Total Housing</u><br><u>Units 1990</u><br><u>Number</u><br><u>of</u><br><u>Units</u> | <u>Total Housing</u><br><u>Units</u><br><u>2000</u><br><u>Percent of</u><br><u>Total</u> | <u>Total Housing</u><br><u>Units</u><br><u>2010</u><br><u>Number of</u><br><u>Units</u> | <u>Total Housing</u><br><u>Units</u><br><u>2020</u><br><u>Percent of</u><br><u>Total</u> |
| Single-family                    | <del>1,384</del> 4,410                                                                  | <del>1,410</del> 35.5                                                                    | <del>1,565</del> 261,008                                                                | <del>1,604</del> 54.2                                                                    |
| Multifamily                      | <del>2,366</del> 2,542                                                                  | <del>2,542</del> 64.0                                                                    | <del>2,635</del> 169,202                                                                | <del>2,519</del> 35.1                                                                    |
| Mobile<br>Home/ <u>Other</u> *** | <del>38</del><br>49                                                                     | <del>19</del><br>0.5                                                                     | <del>41</del><br>51,363                                                                 | <del>51</del><br>10.7                                                                    |
| Total                            | <del>3,788</del> 3,971                                                                  | <del>3,971</del> 100.0                                                                   | <del>4,241</del> 481,573                                                                | <del>4,174</del> 100.0                                                                   |

Source: U.S. Census Bureau, 2000, U.S. Census Bureau, 2010, U.S. Census Bureau, 2020. -

- \* Total housing units.
- \*\* Estimates for housing units by type, tenure, and value are calculated separately, and may not equal estimates for total housing units.
- \*\*\* In Madeira Beach, mobile home units are actually marine liveaboards or houseboats. There are no mobile home units identified in Madeira Beach.

Table 8: Madeira Beach Housing Units Percentages by Type, 1990-2020

| <u>Unit Types</u>    | <u>Madeira Beach 1990</u> | <u>Madeira Beach 2000</u> | <u>Madeira Beach 2010</u> | <u>Madeira Beach 2020</u> |
|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| <u>Single-family</u> | <u>36.50%</u>             | <u>35.50%</u>             | <u>37%</u>                | <u>38%</u>                |
| <u>Multifamily</u>   | <u>62.50%</u>             | <u>64%</u>                | <u>62%</u>                | <u>60%</u>                |
| <u>Mobile Home</u>   | <u>1%</u>                 | <u>0.50%</u>              | <u>1%</u>                 | <u>1%</u>                 |
| <u>Total</u>         | <u>100%</u>               | <u>100%</u>               | <u>100%</u>               | <u>100%</u>               |

## B. Seasonal Housing

The U.S. Census Bureau reported 1,096,071 units in the city as seasonal, recreational, or for occasional use. By the census definition, these seasonal units include time-sharing condominiums. These units are included in the census as vacant units and may be single-family residences or multifamily residences. Seasonal units represent 27.625.6 percent of the housing units in the city. This is significantly higher than the countywide, seasonal, recreational, and tourist units ~~which that~~ account for approximately seven percent (7%) of all housing units.

There are 251-408 hotel or motel units in Madeira Beach. These units are distributed ~~among eight complexes~~ primarily along Gulf Boulevard and were ~~identified in an inventory completed by the city in April 2007~~ updated in 2022.

~~Table 4: Seasonal and Tourist Housing Units~~

~~Table 9:~~ Household Vacancy Status in Madeira Beach

| <u>Label</u>                | <u>2000</u>  | <u>2020</u>  | <u>Change Between 2000 and 2020</u> | <u>Percent Change Between 2000 and 2020</u> |
|-----------------------------|--------------|--------------|-------------------------------------|---------------------------------------------|
| <u>Total:</u>               | <u>1,448</u> | <u>2,173</u> | <u>725</u>                          | <u>50.07%</u>                               |
| <u>For rent</u>             | <u>246</u>   | <u>578</u>   | <u>332</u>                          | <u>135%</u>                                 |
| <u>Rented, not occupied</u> | <u>*</u>     | <u>0</u>     | <u>NA</u>                           | <u>NA</u>                                   |
| <u>For sale only</u>        | <u>24</u>    | <u>52</u>    | <u>28</u>                           | <u>117%</u>                                 |

|                                                      |              |              |            |             |
|------------------------------------------------------|--------------|--------------|------------|-------------|
| <u>Rented or sold, not occupied</u>                  | <u>34</u>    | <u>44</u>    | <u>10</u>  | <u>29%</u>  |
| <u>For seasonal, recreational, or occasional use</u> | <u>1,071</u> | <u>1,246</u> | <u>175</u> | <u>16%</u>  |
| <u>For migrant workers</u>                           | <u>0</u>     | <u>0</u>     | <u>0</u>   | <u>0%</u>   |
| <u>Other vacant</u>                                  | <u>73</u>    | <u>253</u>   | <u>180</u> | <u>247%</u> |

Table ~~5~~-10: Condominiums and Tourist Accommodations in Madeira Beach 2022

| <u>Type of Accommodation</u>                                  | <u>2007</u>            |                         | <u>2022</u>            |                         |
|---------------------------------------------------------------|------------------------|-------------------------|------------------------|-------------------------|
|                                                               | <u>Number of Units</u> | <u>Percent of Total</u> | <u>Number of Units</u> | <u>Percent of Total</u> |
| <u>Condominium</u>                                            | <u>*</u>               | <u>*</u>                | <u>1678</u>            | <u>69%</u>              |
| <u>Timeshare</u>                                              | <u>*</u>               | <u>*</u>                | <u>96</u>              | <u>4%</u>               |
| <u>Hotel, Motels</u>                                          | <u>251</u>             | <u>*</u>                | <u>408</u>             | <u>17%</u>              |
| <u>Condo Conversion - motel, hotel, Condo Hotel and Motel</u> | <u>*</u>               | <u>*</u>                | <u>239</u>             | <u>10%</u>              |
| <b><u>Total:</u></b>                                          | <u>*</u>               | <u>*</u>                | <u>2421</u>            | <u>100%</u>             |

### C. Housing Units by Year Constructed

According to an inventory ~~recently revised~~~~completed~~ by the ~~city~~~~City~~ in April 2007, there have been ~~69-342~~ units constructed in the city since ~~2005~~2000. ~~Of these, most were constructed before 2010. Since 2010, only 65 units were constructed, 31 of which were constructed since 2014.~~ Most of the ~~remaining~~ units constructed since 1990 are replacement units on existing lots subdivided in the 1950s. The majority of homes in the city, ~~almost two-thirds~~~~approximately half~~ of the total, were constructed between 1940 and 1980.

Table ~~5~~11: Total Housing Units by Year Constructed

|                                    | <b><u>Madeira Beach city, Florida</u></b> |                       |
|------------------------------------|-------------------------------------------|-----------------------|
| <b><u>YEAR STRUCTURE BUILT</u></b> | <b><u>Estimate</u></b>                    | <b><u>Percent</u></b> |
|                                    |                                           |                       |
| <u>Built 2014 or later</u>         | <u>31</u>                                 | <u>0.7%</u>           |
| <u>Built 2010 to 2013</u>          | <u>34</u>                                 | <u>0.8%</u>           |
| <u>Built 2000 to 2009</u>          | <u>277</u>                                | <u>6.6%</u>           |
| <u>Built 1990 to 1999</u>          | <u>262</u>                                | <u>6.3%</u>           |
| <u>Built 1980 to 1989</u>          | <u>866</u>                                | <u>20.7%</u>          |

|                              |              |              |
|------------------------------|--------------|--------------|
| <u>Built 1970 to 1979</u>    | <u>838</u>   | <u>20.1%</u> |
| <u>Built 1960 to 1969</u>    | <u>442</u>   | <u>10.6%</u> |
| <u>Built 1950 to 1959</u>    | <u>926</u>   | <u>22.2%</u> |
| <u>Built 1940 to 1949</u>    | <u>344</u>   | <u>8.2%</u>  |
| <u>Built 1939 or earlier</u> | <u>154</u>   | <u>3.7%</u>  |
| <u>Total housing units</u>   | <u>4,174</u> | <u>4,174</u> |

U.S. Census Bureau, 2020

Table \*12: Housing Built Pre-1980 and Versus Housing Built Post-1980 In Madeira Beach

| <u>Time of Construction</u>    | <u>2010</u>                    |                                    | <u>2020</u>                    |                                    |
|--------------------------------|--------------------------------|------------------------------------|--------------------------------|------------------------------------|
|                                | <u>Number of Housing Units</u> | <u>Percentage of Total Housing</u> | <u>Number of Housing Units</u> | <u>Percentage of Total Housing</u> |
| <u>Housing Built Pre-1980</u>  | <u>2971</u>                    | <u>70%</u>                         | <u>2704</u>                    | <u>65%</u>                         |
| <u>Housing Built Post-1980</u> | <u>1270</u>                    | <u>30%</u>                         | <u>1470</u>                    | <u>35%</u>                         |
| <u>Total Housing</u>           | <u>4241</u>                    | <u>100%</u>                        | <u>4174</u>                    | <u>100%</u>                        |

| <u>Year Constructed</u>         | <u>City</u>            |                         | <u>Pinellas County</u> |                         |
|---------------------------------|------------------------|-------------------------|------------------------|-------------------------|
|                                 | <u>Number of Units</u> | <u>Percent of Total</u> | <u>Number of Units</u> | <u>Percent of Total</u> |
| <u>1995 to 2005<sup>1</sup></u> | <u>154</u>             | <u>3.8</u>              | <u>43,677</u>          | <u>8.7</u>              |
| <u>1990 to 1994<sup>2</sup></u> | <u>38</u>              | <u>1.0</u>              | <u>25,453</u>          | <u>5.1</u>              |
| <u>1980 to 1989</u>             | <u>699</u>             | <u>17.6</u>             | <u>102,367</u>         | <u>20.3</u>             |
| <u>1960 to 1979</u>             | <u>1,426</u>           | <u>36.0</u>             | <u>217,867</u>         | <u>43.2</u>             |
| <u>1940 to 1959</u>             | <u>1,495</u>           | <u>37.6</u>             | <u>94,867</u>          | <u>18.8</u>             |
| <u>1939 or earlier</u>          | <u>159</u>             | <u>4.0</u>              | <u>19,753</u>          | <u>3.9</u>              |
| <u>Total Housing Units</u>      | <u>3,971</u>           | <u>100.0</u>            | <u>503,980</u>         | <u>100.0</u>            |

Source: —<sup>1</sup> Pinellas County Building, 2007; the estimate is April 1, 2000 through March 31, 2005, and City of Madeira Beach, 2007.

—<sup>2</sup> U.S. Census Bureau, 2000; the census count is through March 31, 2000.

#### D. Housing Conditions

A windshield survey of the city in April 2007 shows that the housing stock is generally of standard construction and in good repair. This visual survey is supplemented by data from the U.S. Census

## Bureau.

1. ~~Substandard. Housing units are considered to be substandard if they are overcrowded, do not have heat, or lack complete kitchens or plumbing. In 2000, 32 units had an average of over 1.01 persons per room. Only eight units lacked complete plumbing and nine units lacked complete kitchen facilities. While these thresholds represent substandard conditions for a limited number of units, this small percentage of units does not indicate a housing problem in the city.~~
2. ~~Aesthetics. The maintenance of structurally sound housing as well as aesthetic improvements for housing is provided primarily through private maintenance practices.~~

## E. Housing Construction Activity

~~Total housing units were estimated as 3,971 in 2005. According to an inventory completed by the city in April 2007, there have been 69 new units constructed in the city since 2005.~~

~~These units, all representing multifamily or attached housing, are distributed among the following developments: Snug Harbor, 45 units; Lone Palm Town Homes, 18 units; and Princess, 6 units.~~

~~The projected population growth for the city through 2013 is only an additional 18 residents. It is anticipated that this slight population growth will result from limited infill development of the few vacant residential lots existing in the community, as well as the potential for a transition of some seasonal units to full-time, year-round residences.~~

## F. Households by Tenure

In Madeira Beach, an almost identical percentage of units are owner-occupied (36.6 percent) as are vacant (36.4 percent). Of these 1,448 vacant units, 1,094 are identified as seasonal, recreational, or occasional use. Another 27 percent of the housing stock is occupied full-time as rental units. The percentage distribution of tenure of occupancy in Madeira Beach differs from the countywide statistics as a reflection of the seasonal, recreational, and occasional units located in the city, known as a popular beach community.

Table \*~~613~~: Households by ~~Tenure, 2000~~Tenure in Madeira Beach

| Tenure          | <del>2000</del> Madeira Beach |                  | <del>2020</del> Pinellas County |                         |
|-----------------|-------------------------------|------------------|---------------------------------|-------------------------|
|                 | Number of Units               | Percent of Total | Number of Units                 | Percent of Total        |
| Owner-Occupied  | 1,454                         | 36.6%            | <del>1,248</del> 293,866        | <del>30%</del> 61.0     |
| Renter-Occupied | 1,074                         | 27.0%            | <del>753</del> 121,102          | <del>18%</del> 25.2     |
| Vacant          | 1,448                         | 36.4%            | <del>2,173</del> 66,605         | <del>52%</del> 13.8     |
| Total           | 3,976                         | 100.0%           | <del>4,174</del> 481,573        | <del>100.0%</del> 100.0 |

Source: U.S. Census Bureau, 2000, [U.S. Census Bureau, 2020](#)

\* ~~Estimates for housing units by type, tenure, and value are calculated separately, and may not exactly equal estimates for total housing units. However, the estimates are very close: 3,976 compared to 3,971,~~

a difference of only 5 units.

## G. Cost and Value of Housing

1. Median Housing Costs. According to the 2000 Census, the city's median gross monthly rent ~~is was~~ \$555. ~~This median is about 10 percent lower than the \$616 median rent countywide~~ The 2020 census indicates that this figure had risen to \$1,509, almost triple in 20 years. The median value of owner-occupied housing in Madeira Beach was \$171,000 in 2000 compared to ~~\$96,500 for Pinellas County~~ \$471,000 in 2020. ~~The median value of owner-occupied units within the city is are~~ 43.6 percent greater than the county's median. ~~The reported median housing value in 1990 was \$111,400, a 53.5 percent increase between the 1990 and 2000 census reports.~~

Table ~~714~~: Cost and Value of Madeira Beach Housing

| Ownership                            | <del>Madeira-<br/>Beach</del><br>Year 2000 | <del>Pinellas County</del><br>Year 202000 |
|--------------------------------------|--------------------------------------------|-------------------------------------------|
| Median Gross Rent                    | \$555                                      | <del>\$1,509</del> 615                    |
| Median Value of Owner-Occupied Units | \$171,000                                  | <del>\$471,000</del> 96,500               |

Source: U.S. Census Bureau, 2000. ~~U.S. Census Bureau 2020.~~

2. Housing Cost by Household Income. **Table 8-15** displays the relationship of housing costs for households in Madeira Beach from 2000 compared to housing costs ~~for countywide households for 2020~~. Approximately 41 percent of rental households in Madeira Beach in 2000 each paid 30 percent or more of their income for rent. ~~Similarly, almost 40 percent of households in the county paid rents that were 30 percent or more of their household income. Only 18.8 percent of households in Madeira Beach paid no rent or mortgage payment which is consistent with approximately 15 percent for Pinellas County households in the aggregate~~ That number rose in 2020 to 70 percent, indicating a reduction in renter occupied units from 1,074 in 2000 to 753 in 2020.. Households paying more than 30 percent of their adjusted gross annual income are considered cost burdened according to the definition in Section 420.004(3), Florida Statutes.

Table ~~\*815~~: Madeira Beach Households by Housing Costs, ~~2000~~

|                                                        | <del>2000</del> Madeira Beach |                   | <del>2020</del> Pinellas County |                                  |
|--------------------------------------------------------|-------------------------------|-------------------|---------------------------------|----------------------------------|
|                                                        | Number                        | Percent           | Number                          | Percent                          |
| <b>Renter-occupied Units</b>                           | <b>1,074</b>                  | <b>100.0%</b>     | <b>753</b> <del>121,0</del>     | <b>100.0%</b> <del>1</del>       |
| Households paying 30% or more of their income for rent | 448                           | 41.7 <sup>1</sup> | <del>525</del> 48,339           | <del>70%</del> 39.9 <sup>+</sup> |
| Households paying under 30% of their income for rent   |                               |                   |                                 |                                  |
| No cash rent                                           | 45                            | 4.2               | <del>44,602</del>               | <del>3.8</del>                   |
| <b>Owner-occupied Units</b>                            | <b>1,454</b>                  | <b>100.0%</b>     | <b>1248</b> <del>293,</del>     | <b>100.0%</b> <del>1</del>       |

|                                                                                  |       |                   |                       |                                 |
|----------------------------------------------------------------------------------|-------|-------------------|-----------------------|---------------------------------|
| Households with mortgages paying 30% or more of their income for housing         | 270   | 18.6 <sup>1</sup> | 260 <del>50,169</del> | 47% <del>17.1<sup>1</sup></del> |
| Households with mortgages paying less than 30% of their income for housing costs |       |                   |                       |                                 |
| Not mortgaged                                                                    | 429   | 29.5              | 671 <del>57,79</del>  | 54% <del>19.7</del>             |
| Total Households by Tenure                                                       | 2,528 | 28.4 <sup>2</sup> | 2001 <del>414,</del>  | 39% <del>59.6<sup>2</sup></del> |

Source: U.S. Census Bureau, 2000.

<sup>1</sup> The percentage is based on total rental or total owner households.

<sup>2</sup> This percentage is the percent of all households paying 30 percent or more of their income for either rent or mortgage.

~~Note: The number of units by tenure includes only occupied units and does not include vacant units in the total. Estimates for housing units by type, tenure, and value are calculated separately, and may not exactly equal estimates for total housing units. However, the estimates are very close: 3,976 compared to 3,971, a difference of only 5 units.~~

#### H. Subsidized Rental Housing Units

There are no subsidized rental housing units in Madeira Beach.

#### I. Residential Group Homes

There are no residential group homes reported within the city.

#### J. Mobile Home Parks, Subdivisions, or Condominiums

According to the 2000 Census, there ~~are were~~ a total of ~~nineteen~~ 19 units designated as “mobile home” in the ~~City of Madeira Beach~~ city. These units are actually marine liveaboards or houseboats. There are no mobile home units in the City of Madeira Beach. The number of marine liveaboards has increased from 19 in 2000 to 51 in 2020.

#### K. Historically Significant Housing

There is no historically significant housing within the city.

### 4.4.2 Analysis of Housing Data

#### A. Projection of Households by Size and Income Range

Households had an average of 1.78 persons as reported by the 2000 census. No distribution by number of persons per household was available. The median household income in 2000 was \$36,671.

~~Table 9: Estimated and Projected Number of Households by Income Range\*~~

|                                 | <del>1999</del>                 |                             | <del>2013</del>                 |                             | <del>2025</del>                 |                             |
|---------------------------------|---------------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------------|-----------------------------|
| <del>Income Ranges</del>        | <del>Number of Households</del> | <del>Percent of Total</del> | <del>Number of Households</del> | <del>Percent of Total</del> | <del>Number of Households</del> | <del>Percent of Total</del> |
| <del>Less than \$24,999</del>   | <del>955</del>                  | <del>37.7</del>             | <del>1,095</del>                | <del>37.7</del>             | <del>1,103</del>                | <del>37.7</del>             |
| <del>\$25,000—\$49,999</del>    | <del>661</del>                  | <del>26.1</del>             | <del>758</del>                  | <del>26.1</del>             | <del>764</del>                  | <del>26.1</del>             |
| <del>\$50,000—\$74,999</del>    | <del>409</del>                  | <del>16.2</del>             | <del>471</del>                  | <del>16.2</del>             | <del>474</del>                  | <del>16.2</del>             |
| <del>\$75,000 &amp; above</del> | <del>506</del>                  | <del>20.0</del>             | <del>581</del>                  | <del>20.0</del>             | <del>585</del>                  | <del>20.0</del>             |

|                  |       |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|-------|
| Total Households | 2,551 | 100.0 | 2,905 | 100.0 | 2,926 | 100.0 |
|------------------|-------|-------|-------|-------|-------|-------|

Source: U.S. Census 2000;

\* Calculations are for permanent, non-seasonal households only.

## B. Projected Housing Units by Type

The City of Madeira Beach is ~~almost completely~~ approaching horizontal build-out. Redevelopment of previously developed land is, and will continue to be, the focus of the comprehensive plan.

There ~~has~~ have been no increases in residential density citywide; the trend in local redevelopment activities has resulted in fewer permanent dwelling units rather than more. This reduction in density may be due, in part, to the establishment and enforcement of the county coastal construction control line and enforcement of comprehensive plan densities.

~~The projected population growth for the city through 2013 is only an additional 18 residents. It is anticipated that this slight population growth will result from limited infill development of the few vacant residential lots existing in the community, as well as the potential for a transition of some seasonal units to full-time, year-round residences.~~

~~Based on the virtually built-out character of the city, it is estimated that there will be only a slight increase in the number of residential units by 2013. It is expected that 12 of these units will be single family, nine will be triplexes, and 40 will be multifamily units. The existing ratio of housing unit types is expected to remain virtually unchanged over the planning period.~~

## C. Projected Housing Units by Tenure

~~This increase of 61 dwelling units by 2013 appears to create a slight discrepancy with the projected population increase of 18 persons over the same time period. However, this is explained by the expectation that the average household size will be smaller and that some existing transient units will become permanent housing in the future, and the vast majority of new units are anticipated to be occasional, recreational, and seasonal units rather than occupied households.~~

~~Table 10: Estimated and Projected Housing Units by Type\*~~

| Housing Type           | 2007<br># Of Units | 2010<br># Of Units | 2013<br># Of Units | 2020<br># Of Units | 2025<br># Of Units |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Single family          | 1,410              | 1,420              | 1,422              | 1,423              | 1,425              |
| Duplexes and Triplexes | 154                | 163                | 163                | 166                | 169                |
| Multifamily            | 2,388              | 2,420              | 2,428              | 2,436              | 2,448              |
| Total Units            | 3,952              | 4,003              | 4,013              | 4,025              | 4,042              |

~~\* Calculations are for permanent, non-seasonal households only. City of Madeira Beach, 2007.~~

## D. Affordable and Workforce Housing

The ~~city~~ City recognizes the importance of ~~providing locations for~~ affordable housing and workforce housing. However, there are several factors including availability of vacant land for residential development and the inability to increase development densities. ~~This means that inhibit the City from~~ adding residential density to meet affordable housing needs ~~is not a~~

~~realistic solution. In the alternative, the city~~City participates in countywide and regional housing programs designed to provide funding for affordable housing and workforce housing. The Housing Finance Authority of Pinellas County is a regional agency that helps families and individuals in Pinellas, Pasco, and Polk Counties purchase their first home. The Housing Finance Authority also has a variety of programs to assist public safety workers, teachers, and health care workers with housing down payment and mortgage assistance.

#### ~~E. Projection of Seasonal Housing~~

~~Dwelling units held for seasonal, recreational, or occasional uses are projected to increase in the City of Madeira Beach over the two planning periods of 2013 and 2025. Preliminary plans have been proposed for over 250 new hotel or seasonal condominium units.~~

### 4.5 INFRASTRUCTURE

#### 4.5.1 Stormwater Management

The City of Madeira Beach is responsible for a separate municipal storm sewer system and implementation and enforcement of NPDES regulations. The city is a co-applicant with Pinellas County in the National Pollutant Discharge Elimination System (NPDES) and assesses a citywide stormwater service fee for facility improvements. Southwest Florida Water Management District (SWFWMD) grants have been used to improve stormwater drainage and to install Continuous Deflective Separation (CDS) units in John's Pass Village and on 140th Avenue to implement the citywide stormwater drainage management plan. The installation of the CDS units at Public Works, John's Pass Village, and 140<sup>th</sup> Avenue ~~helps~~helped eliminate floatable waste in the Bay and Gulf waters during storm events.

~~One project is scheduled for completion in 2007. The city has received a 50/50 matching grant from Southwest Florida Water Management District for the 141<sup>st</sup> Avenue Stormwater Treatment Station with completion anticipated by December 31, 2007. The improvements for the 141<sup>st</sup> Avenue Station include retrofitting the station with new pumps, a CDS-type unit to treat the stormwater, installation of a 20,000-gallon underground storage tank and an emergency bypass, refurbishing the existing pump station building, and removal of old sand filtration beds and underdrains.~~

All new development and redevelopment, depending on the magnitude of the impervious surface, must provide stormwater drainage retention and treatment for a 10-year frequency, 60- - minute storm event. This level-of-service requires treatment of the first one-inch of runoff. The city is continuing to implement drainage improvements with funding from the stormwater service fees as well as grant revenue. The Capital Improvements Element ~~shows that no additional projects are anticipated through fiscal year 2009-2010~~identifies the projects anticipated through 2027.

#### 4.5.2 Potable Water

##### A. Introduction

The Potable Water Sub-Element is supplemented with the Water Supply Facilities Work Plan. The City of Madeira Beach receives all potable water supplies, treatment, and distribution from Pinellas County Utilities. Through an interlocal agreement and master water supply contract,

Tampa Bay Water, the regional water supply authority, provides all the potable water needed by its six member governments, including Pinellas County Utilities as an operational entity within Pinellas County. Through the agreement and contract, “Tampa Bay Water is obligated to meet the current and future water needs of its member governments. In order to meet these needs, Tampa Bay Water owns and operates water supply facilities including wellfields, surface water -withdrawals, a seawater desalination facility, treatment facilities, storage facilities such as the off-stream reservoir, pumping stations, and transmission mains.” (Regional Water Supply Plan, page 8)

~~No proportional capacities are calculated for individual retail water customers by either Tampa Bay Water, the Southwest Florida Water Management District (SWFWMD), or Pinellas County Utilities. As a result, projection of demand is not made separately for Madeira Beach. Madeira Beach’s potable water demand is included in the aggregate demand data and projections for Pinellas County Utilities, the potable water service provider. The water demand data provided in the SWFWMD 2020 Regional Water Supply Plan is the best available data. The population projections used by the SWFWMD are essentially the same as the county projections that include seasonal and tourist data. The water demand population data used in the 2020 Regional Water Supply Plan is based on a model that projects population fluctuations at the census block level, distributes the projections to parcels within each block, then normalizes the projections to BEBR medium county level data.~~

~~B. Potable Water Facility Capacity, Projected Demand, Surplus, or Deficits Madeira Beach also relies on the data and analysis contained in the Tampa Bay Region Community Planning Pages from the Southwest Florida Water Management Pinellas District. Pinellas County Comprehensive Plan Potable Water, Wastewater and Reuse Element, proposed EAR-based amendment dated September 21, 2007, The Tampa Bay Community Planning Pages Demand Analysis and Supply Analysis are for the the appropriate data and analysis data and analysis for the Madeira Beach water supply facilities work plan. Located below are the demand analysis and supply analysis data tables from the Tampa Bay Region Community Planning Pages.~~

Table 11: Madeira Beach Demand Analysis

| <u>Utility Name</u>                             | <u>2020</u>                                      | <u>2025</u>    | <u>2030</u>    | <u>2035</u>    | <u>2040</u>    | <u>WUP (MGB)</u> | <u>Per Capita Water Use (2011-2015)</u> |
|-------------------------------------------------|--------------------------------------------------|----------------|----------------|----------------|----------------|------------------|-----------------------------------------|
| <u><b>Pinellas County Utilities (20142)</b></u> | <u><b>(Supplied Through Tampa Bay Water)</b></u> |                |                |                |                |                  |                                         |
| <u>Municipal Population Served</u>              | <u>10,041</u>                                    | <u>10,194</u>  | <u>10,424</u>  | <u>10,662</u>  | <u>10,600</u>  | <u>0.000</u>     | <u>79</u>                               |
| <u>Demand (MGD)</u>                             | <u>0.789</u>                                     | <u>0.801</u>   | <u>0.819</u>   | <u>0.838</u>   | <u>0.833</u>   |                  |                                         |
| <u>Total Utility Service Area Population</u>    | <u>504,863</u>                                   | <u>514,010</u> | <u>526,816</u> | <u>539,181</u> | <u>543,701</u> |                  |                                         |
| <u>Demand (MGD)</u>                             | <u>39.670</u>                                    | <u>40.388</u>  | <u>41.395</u>  | <u>42.366</u>  | <u>42.721</u>  |                  |                                         |
|                                                 |                                                  |                |                |                |                |                  |                                         |
| <u><b>Domestic Self Supply</b></u>              |                                                  |                |                |                |                |                  |                                         |
| <u>Population Served</u>                        | <u>0</u>                                         | <u>1</u>       | <u>2</u>       | <u>2</u>       | <u>2</u>       |                  | <u>54</u>                               |
| <u>Demand (MGD)</u>                             | <u>0.000</u>                                     | <u>0.000</u>   | <u>0.000</u>   | <u>0.000</u>   | <u>0.000</u>   |                  |                                         |
|                                                 |                                                  |                |                |                |                |                  |                                         |
| <u><b>Municipal Population</b></u>              | <u>10,041</u>                                    | <u>10,195</u>  | <u>10,427</u>  | <u>10,664</u>  | <u>10,603</u>  |                  | <u>79</u>                               |
|                                                 |                                                  |                |                |                |                |                  |                                         |
| <u><b>Total Demand (Municipal)</b></u>          | <u>0.789</u>                                     | <u>0.801</u>   | <u>0.819</u>   | <u>0.838</u>   | <u>0.833</u>   |                  |                                         |
| <u><b>Total Demand (Utilities)</b></u>          | <u>39.670</u>                                    | <u>40.388</u>  | <u>41.395</u>  | <u>42.366</u>  | <u>42.721</u>  |                  |                                         |

Key:

WUP= Water Use Permit

MGD- Millions of Gallons Per Day

(Southwest Florida Water Management District, 2020)

Table 12: Madeira Beach Supply Analysis Existing Sources

| <u>Existing Sources</u>                  |                                   |
|------------------------------------------|-----------------------------------|
|                                          | <u><i>Current Yield (MGD)</i></u> |
| <u>Total Permitted Quantities</u>        | <u>0.000</u>                      |
| <u>Water Supply Authority Quantities</u> | <u>224.620</u>                    |
|                                          |                                   |
| <u>Total Current Yield</u>               | <u>0.000</u>                      |

(Southwest Florida Water Management District, 2020)

Table 13: Madeira Beach Future Source Options

| <u>Future Source Options</u> |                                          |                                  |
|------------------------------|------------------------------------------|----------------------------------|
|                              | <u><i>2040 Potential Yield (MGD)</i></u> | <u><i>Responsible Entity</i></u> |
| <u>Conservation</u>          | <u>0.094</u>                             | <u>All</u>                       |

(Southwest Florida Water Management District, 2020)

C. Conservation and Reuse  
6.

1. Inventory of Reuse Water Service Providers: Residents of Madeira Beach receive reclaimed water from Pinellas County Utilities.

2. Conservation and Reuse Practices and Regulations: Water conservation is regulated by Pinellas County. This includes enforcement of water use restrictions during declared water shortage emergencies, water saving plumbing devices, and use of reclaimed water for irrigation.

2.  
3. Water Supply Provided by Other Entities: The City of Madeira Beach is a retail customer of the Pinellas County Utilities Department and therefore, has adopted the Pinellas County Utilities Department's 10-year Water Supply Facilities Work Plan into the City of Madeira Beach Comprehensive Plan. The County's work plan addresses the requirements needed to serve current and future development within the City's jurisdiction.

4. Conservation: Conservation programs are adopted from Pinellas County and Southwest Florida Water Management District. Pinellas County is working to address resource uncertainty using reclaimed water that offsets of the use of potable water consumption, conservation programs that prevent the waste of potable water, and the development of alternative sources of potable water supply and storage methods.

5. Local Specific Actions, Programs, or Regulations: The City of Madeira Beach has adopted by reference those provisions of water conservation ordinances that are applicable to Madeira Beach which may be adopted by Pinellas County or recommended by the Southwest Florida Water Management District.

6. Identify any Local Financial Responsibilities as Detailed in the CIE or CIS: The City of Madeira Beach is not financially responsible for the potable water infrastructure. The city's Capital Improvements element shown below does ensure that the City will work with Pinellas County to ensure an adequate supply of water is available, that level of service standards are met and that the budget is adequate to provide the required services.

7. Reuse: State law supports reuse efforts. Florida's utilities, local governments, and water management districts have led the nation in the quantity of reclaimed water reused and public acceptance of reuse programs. Section 373.250(1) F.S. provides "the encouragement and promotion of water conservation and reuse of reclaimed water, as defined by the department, are state objectives and considered to be in the public interest." In addition, Section 403.064(1), F.S., states "reuse is a critical component of meeting the state's existing and future water supply needs while sustaining natural systems."

8. Local Specific Programs, Regulations, or Opportunities: The City of Madeira Beach is provided reclaimed water by the Pinellas County Utilities Department and supports water reuse initiatives and watering regulations set forth by the County.

9. Identify any Local Financial Responsibilities as Detailed in the CIE or CIS: The City of Madeira Beach is not financially responsible for the reclaimed water infrastructure. The city's Capital Improvements element shown below does ensure that the City will work with Pinellas County to ensure an adequate supply of water is available, that level of service standards are met and that the budget is adequate to provide the required services.

#### D. Alternative Water Supply Projects

The 2020 Regional Water Supply Plan is coordinated with the Tampa Bay Water Long-Term Master Water Plan. ~~contains hundreds of water supply options~~. Because the wholesale potable water supply is provided by Tampa Bay Water, the required water supply projects are selected and implemented by that agency. The selected projects, approved by the Tampa Bay Water Board are then incorporated into the Master Water Plan. ~~The Tampa Bay~~ Water Board selected the Downstream Enhancements Phases A/B for System Configuration II of the Master Water Plan for implementation. These enhancements meet the region's water needs through ~~2017~~ 2040. (Special District Public Facilities Report, 4) No individual water supply project is selected by Madeira Beach.

#### E. Financing

The capital costs for water supply development projects are the responsibility of Tampa Bay Water. Such costs are recaptured through the sale of water to Pinellas

County Utilities, and through them, by Madeira Beach. ~~Funding mechanisms are identified in the Special District~~

~~Public Facilities Report (5). The Pinellas County Water Supply Work Plan includes costs for distribution, transmission, treatment, and associated facilities (see the work plan in the appendix).~~

F. General Performance of Existing Facilities and Adequacy of Adopted Level-of-Service  
1. General Performance: The Special District Public Facilities Report includes a summary of the existing Tampa Bay Water facilities ~~on Table I, Existing Water Supply Facilities (7), and Table II, Existing Pipelines (10).~~ Pinellas County facilities are described in the Water Supply Element of the Pinellas County Comprehensive Plan.

2. Level-of-Service Standards: The City of Madeira Beach adopted level-of-service standards for stormwater drainage and potable water. They are referenced in Policy 13.1.5.4 of the Madeira Beach Comprehensive Plan. These level-of-service standards are: will coordinate its level-of-service for potable water with the level-of-service standard adopted by Pinellas County for its retail customers. These standards are:

Stormwater Drainage:

Each newly developed or redeveloped property must be designed and maintained to retain on-site the first one-inch (1”) of impervious surface runoff from the ten- year (10-year) frequency, sixty-minute (60-minute) storm event.

Table 14: Potable Water

| <u>Year</u>                              | <u>2020</u> | <u>2025</u> | <u>2030</u> | <u>2035</u> |
|------------------------------------------|-------------|-------------|-------------|-------------|
| <u>Gallons per capita per day (gpcd)</u> | <u>102</u>  | <u>104</u>  | <u>105</u>  | <u>107</u>  |

2. (Source: Regional Water Supply Plan, Chapter 4, Appendix 4, Table 34-A)

Table 1116: Pinellas County Projected Level-of-Service Standards

| <u>Year</u>                              | <u>2005</u> | <u>2015</u> | <u>2025</u> |
|------------------------------------------|-------------|-------------|-------------|
| <u>Gallons per capita per day (gpcd)</u> | <u>137</u>  | <u>120</u>  | <u>115</u>  |

Source: Pinellas County Proposed Amendment to the Comprehensive Plan, 2007.

Table 16: Madeira Beach Demand Analysis

Table 17: Madeira Beach Supply Analysis

#### 4.5.3 Solid Waste

~~As reported in the 1999 Comprehensive Plan, t~~The eCity continues to provide solid waste collection services for residential and commercial establishments solely within the municipal boundaries. Recycling containers are located at City Hall for voluntary recycling of select materials. In May 2006, SCS Engineers completed a draft report for the City of Madeira Beach, Solid Waste Collection: Cost of Service Study and Business Plan. This study contains detailed information about the number and type of customers, and the type of service provided by the ~~city~~City. ~~Because the city is essentially built out, no major increase in waste-generation is anticipated during the projected planning periods.~~ The ~~city's~~ City's solid waste system is managed using a separate enterprise fund and rates are adjusted as warranted by documented expenses.

The ~~city~~ City relies on the data and analysis contained in the Pinellas County Comprehensive Plan Solid Waste Element, as ~~amended~~ adopted on October 19, 1999, through Ordinance 99-91. Pinellas County is responsible for the ultimate disposal of the solid waste that is delivered to its system.

~~For fiscal year 2004-2005, the city collected 6,897.55 tons (18.90 tons per day) of non-recyclable waste that was sent to the Pinellas County Resource Recovery Plant. The 1999 plan stated that the total tonnage in 1995 was 20.6 tons per day, or 7,519 tons per year, in non-recyclable waste. Since 1995, there has been a reduction of 8.3 percent in the total waste collected.~~

## 4.6 CONSERVATION AND COASTAL MANAGEMENT

~~There are no major issues in the EAR pertaining to conservation and coastal management. However, one update to the data and analysis is required to address the new statutory definition of the coastal high hazard area. As a coastal community, Madeira Beach's major concern for the EAR is compliance with statutory requirements for "Peril of Flood" provisions of section 163.3178(f)(2) Florida Statutes. This requires an update to the data and analysis to include a vulnerability assessment ("VA"). An initial VA was completed by the University of Florida | Institute of Food and Agricultural Sciences ("UF|IFAS") Program for Resource Efficient Communities ("PREC") in 2020-21 under a grant from the Florida Department of Environmental Protection ("FDEP"). This initial VA was effective in identifying focus areas for potential development of Adaptation Action Areas under Florida Statutes. This initial VA does not, however, comply with section 380.093 Florida Statutes that was subsequently enacted in 2021. Pinellas County is in the process of completing a countywide, statutorily compliant VA to satisfy the requirements of F.S. § 380.093. An updated map, CM-2, is provided to depict the area defined by the Seas, Lakes, and Overland Surges from Hurricanes (SLOSH) model. However, as discussed in Section 4.2.4 future land use data and analysis, the more strict stricter boundary required by the Pinellas Planning Council Countywide Plan Rules will continue to be enforced in Madeira Beach. This boundary line will be depicted on the Future Land Use Map and is being renamed to the Coastal Storm Area.~~

~~Another item updated for the city is the floodplain map, Map LU-3. A more recent map is available that depicts/delineates the federal FEMA recently updated the Flood Insurance Rate Map ("FIRM") the , which shows where the floodplains are located in Madeira Beach. The updated map is called the 6.1g Madeira Beach FEMA FIRM Map in this document.~~

All objectives and policies pertaining to hazard mitigation and hurricane evacuation are consolidated in the Conservation and Coastal Management Element. "Peril of Flood" compliant provisions were developed as part of the VA study and are included under Objective 8.2.3, Policies 8.2.3.1 through 8.2.3.6.

### 4.6.1 Working Waterfronts

The State of Florida has identified the importance of working waterfronts to employment, quality of life, and to the state and local economies. Increasingly, new development is replacing working waterfronts with other commercial and residential uses. The lure of waterfront access combined with increased land prices threatens the continued viability of these important working waterfronts.

There are three (3) working waterfront sites in the City of Madeira Beach: the Madeira Beach City Marina on 150th Avenue and two private business locations. Each of these areas has separate issues and strategies.

At the City Marina, in addition to the public areas, commercial fisherman, charters, and ~~sand-dollar fisherman water-oriented~~ businesses are operating. Since this facility is City-owned, ~~is it~~ is controlled and protected from redevelopment pressures, ~~but there is a policy to change the land use designation to Transportation/Utility rather than Open Space.~~

The City of Madeira Beach is committed to encouraging and supporting the continuation of its working waterfronts and is proposing new policies for this continuation. The City of Madeira Beach has included an objective and associated policies for working waterfronts in the Conservation and Coastal Management Element. This objective and policies were recently renumbered as Objective 8.1.11 and Policies 8.1.11.1 through 8.1.11.4. Statutory provisions regarding working waterfronts are provided in Florida Statutes chapter 342, Sections 342.07 and 342.201 (2022).

#### 4.7 CULTURE AND RECREATION ~~AND OPEN SPACE~~

The Culture and Recreation ~~and Open Space~~ Element was recently renamed, renumbered, and revised in conjunction with the City adopting proportionate-share development fees (or “impact fees”) ~~Data and Analysis dated July 20, 1999, continues in effect except as modified in the following subsections.~~

##### 4.7.1 Acreage in Culture and Recreation ~~and Open Space~~

As part of the study to develop the impact fees, City staff undertook an extensive review of the inventory of municipal-owned parcels of land. Within the city, there is a total of 29.6 acres of recreation/open space which equals 6.6 percent of the land area. Of the 24 land parcels identified as municipal-owned, 61.02 acres were associated with culture and recreation. This acreage is comprised of several parks with beach access to the Gulf of Mexico along Gulf Boulevard, a large city park fronting Boca Ciega Bay in the area of the municipal complex, ~~and~~ a smaller city park along 150th Avenue, and numerous street stubs where municipal street rights-of-way terminate at the water.

##### 4.7.2 Gulf of Mexico, The Narrows, and Boca Ciega Bay

~~An issue was raised during preparation of the EAR regarding the addition of the Gulf of Mexico, The Narrows, and Boca Ciega Bay to the list of public recreational facilities for the city. While no new policies are added, there are existing policies that maintain signage at appropriate locations identifying access points to the Gulf of Mexico. Further, in the Future Land Use Element, there is a policy regarding the issue of protecting view corridors for both the Gulf of Mexico and Boca Ciega Bay. Therefore, this issue is adequately addressed, and no changes are needed to the goals, objectives, and policies.~~

~~Concerning The Narrows, this area has seen significant redevelopment including John’s Pass Village and the replacement of the John’s Pass Bridge. Considering that most of this property is in private ownership, it is not feasible at this time to add this resource as a public recreational facility.~~

##### 4.7.3 Level-of-Service Policy 10.1.1.1

The ~~city~~ City is amending its recreation level of service to a level-of-service standard based on park land ~~rather than a~~ replacement cost for culture and recreation facilities and services y- ~~based standard~~. The purpose of this change is to provide the city with greater flexibility to determine the culture and recreation needs of the population while ensuring that adequate culture and recreation land, facilities, and services are ~~is~~ available ~~for parks to citizens and visitors~~. As needs change, the city has the ability to ~~can~~ redevelop parks with different facilities, as a specific type and number of facilities are not mandated by the policies of the comprehensive plan. All levels of service are now located in the Capital Improvements Element and referenced in the relevant elements. The adopted LOS standard for improved municipal culture and recreation facilities and services is provided in Policy 13.1.5.4 of the Plan's Capital Improvements Element.

~~4.7.4 New Recreation and Open Space~~ A recommendation of the EAR is to ensure that recreational sites and facilities added since the 1999 plan amendment are included in the data and analysis.

~~There has been no sale or loss of recreational areas in Madeira Beach since the last amendment in 1999; however, one park site was added. Through a Preservation 2000 grant, the city purchased a 1.55-acre site, known as the Madeira Beach Causeway Park, and developed the property as a passive park. The new facilities include a picnic pavilion, observation deck, fishing pier, walking trail, and native and natural planting throughout the area.~~

~~Additionally, the small island located in Boca Ciega Bay designated as Little Bird Cay has been designated as preservation on the FLUM, providing permanent open space.~~

#### ~~4.7.5 Municipal Marina~~

~~A recommendation of the EAR is to provide current information about the status of the municipal marina.~~

~~The municipal marina is a valuable asset to the city both for the public access to the water as well as its representation of the community's origins as a commercial fishing village. Marina facilities include a boat ramp, 81 wet slips, transient accommodations, and dry storage. The boat ramp in this marina is the only ramp in the city. Proposed improvements to the marina include relocating the boat ramp on the site for better access to the water as well as improvements for the wet slips and dry storage. Conditions at the marina have improved during the past five years and the city's marina was inspected for a Clean Marina designation, under the Florida Department of Environmental Protection standards, during 2006. In August 2007, the city received the "Clean Marina" designation for city-owned marina. To further protect this important resource, the Future Land Use Map depicts the marina as Transportation/Utility.~~

#### ~~4.7.6 Severe Loss Properties~~

~~During the preparation of the EAR, an issue was raised suggesting that the city explore the~~

~~possibility of using properties acquired through the FEMA Severe Loss Properties program for passive parks or other open space. The city has in fact provided application under the Severe Loss Program to FEMA for four (4) properties located in the city. Three (3) of these sites were contiguous and would have been suitable for use as a new park space. However, these applications were not selected for funding by FEMA.~~

#### 4.8 INTERGOVERNMENTAL COORDINATION

As discussed in the data and analysis for the Housing Element, the primary issue for Madeira Beach is coordinating the availability and provision of workforce and affordable housing. As with most small horizontally built-out barrier island cities, the only effective means of ensuring the availability and provision of such housing is through cooperation with other entities that provide housing or financing.

A second issue of intergovernmental coordination is annexation. The City is not pursuing involuntary annexation but continues to consider requests from property owners for voluntary annexation. The intergovernmental coordination policies and objectives are updated to address the current situation with regard to the coordination of the availability of affordable housing as well as annexation. A complete updated inventory of entities with which the city coordinates is available at the EAR- based amendment resource page of the Pinellas Planning Council website [[www.pinellasplanningcouncil.org/state/earba.htm](http://www.pinellasplanningcouncil.org/state/earba.htm)].at <https://forwardpinellas.org/about-us/agency-partners/>.

#### 4.9 CAPITAL IMPROVEMENTS

The capital improvements anticipated for Fiscal Years 2023 through 2027 are provided in Table 17.

Table 157: Capital Improvement Needs

##### **FY 2021**

| <b>Project</b>                                             | <b>Cost</b>      |
|------------------------------------------------------------|------------------|
| <u>Recreation LED Field Lighting Project (in progress)</u> | <u>\$247,500</u> |
| <u>Rosenbauer 78-foot Viper MP3 (in progress)</u>          | <u>\$225,000</u> |
| <b>Total</b>                                               | <b>\$472,500</b> |

##### **FY 2022**

| <b>Project</b>                                             | <b>Cost</b>        |
|------------------------------------------------------------|--------------------|
| <u>Parsley Drive/Marguerite Drive (Area 3/Series 2019)</u> | <u>\$5,520,000</u> |
| <u>Beach Access &amp; Parking Lot Improvement Plan</u>     | <u>\$200,000</u>   |
| <u>Fire Station SCBA Apparatus</u>                         | <u>\$100,000</u>   |
| <u>Gulf Boulevard Improvements</u>                         | <u>\$1,053,006</u> |
| <u>Gulf Lane Improvements</u>                              | <u>\$300,000</u>   |
| <u>John's Pass Village Boulevard (Areas 5/Series 2019)</u> | <u>\$5,040,000</u> |
| <u>John's Pass Regrade &amp; Repave Parking Lot</u>        | <u>\$120,000</u>   |

|                                                          |                     |
|----------------------------------------------------------|---------------------|
| <u>Recreation LED Field Lighting Project</u>             | <u>\$100,000</u>    |
| <u>Recreation Expansion Cost</u>                         | <u>\$200,000</u>    |
| <u>Stormwater Rehabilitation and Replacement Program</u> | <u>\$200,000</u>    |
| <u>Watershed Management Plan</u>                         | <u>\$120,000</u>    |
| <u>Total</u>                                             | <u>\$12,953,006</u> |

**FY 2023**

| <b>Project</b>                                                   | <b>Cost</b>        |
|------------------------------------------------------------------|--------------------|
| <u>Beach Access &amp; Parking Lot Improvement Plan</u>           | <u>\$260,000</u>   |
| <u>Public Works – Half Repaving</u>                              | <u>\$125,000</u>   |
| <u>Gulf Boulevard Improvements</u>                               | <u>\$1,053,006</u> |
| <u>Marina Chip/Repave Asphalt</u>                                | <u>\$125,000</u>   |
| <u>Recreation Concession Stand Improvements</u>                  | <u>\$100,000</u>   |
| <u>Stormwater Rehabilitation and Replacement Program</u>         | <u>\$200,000</u>   |
| <u>155th Avenue/153rd Avenue &amp; Municipal Drive (Area 6a)</u> | <u>\$4,400,000</u> |
| <u>Peterbilt Claw Truck</u>                                      | <u>\$201,700</u>   |
| <u>Peterbilt Packer Truck</u>                                    | <u>\$250,000</u>   |
| <u>Total</u>                                                     | <u>\$6,714,706</u> |

**FY 2024**

| <b>Project</b>                                           | <b>Cost</b>         |
|----------------------------------------------------------|---------------------|
| <u>Gulf Boulevard Improvements</u>                       | <u>\$1,053,006</u>  |
| <u>Stormwater Rehabilitation and Replacement Program</u> | <u>\$200,000</u>    |
| <u>140th Avenue/Bayshore Drive (Area 3a)</u>             | <u>\$15,200,000</u> |
| <u>Recreation School Bus</u>                             | <u>\$100,000</u>    |
| <u>Total</u>                                             | <u>\$16,553,006</u> |

**FY 2025**

| <b>Project</b>                     | <b>Cost</b>        |
|------------------------------------|--------------------|
| <u>Gulf Boulevard Improvements</u> | <u>\$1,053,006</u> |
| <u>New City Parking Garage</u>     | <u>\$6,000,000</u> |
| <u>Total</u>                       | <u>\$7,053,006</u> |

Source: City of Madeira Beach, 2022.

Table 168 Schedule of Capital Improvements Fiscal Years 2023 through 2027

| <u>Project Title</u>                     | <u>FY 2023</u>      | <u>FY 2024</u> | <u>FY 2025</u> | <u>FY 2026</u> | <u>FY 2027</u> |
|------------------------------------------|---------------------|----------------|----------------|----------------|----------------|
| <u>Interior and Exterior Maintenance</u> | <u>\$350,000.00</u> | -              | -              | -              | -              |

|                                                                                                                                                                  |                       |                       |                       |                     |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| <u>Beach Groin Renourishment Project</u>                                                                                                                         | <u>\$3,500,000.00</u> | <u>\$750,000.00</u>   | -                     | -                   | -                   |
| <u>Patriot Park fishing piers rebuild</u>                                                                                                                        | <u>\$100,000.00</u>   | -                     | -                     | -                   | -                   |
| <u>Mill and Resurface Parking Lot at Archibald Park</u>                                                                                                          | -                     | <u>\$250,000.00</u>   | -                     | -                   | -                   |
| <u>Pocket Park Improvements</u>                                                                                                                                  | <u>\$150,000.00</u>   | -                     | -                     | -                   | -                   |
| <u>Construct Code Enforcement Dayroom</u>                                                                                                                        | <u>\$150,000.00</u>   | -                     | -                     | -                   | -                   |
| <u>Construct Public Works Building</u>                                                                                                                           | <u>\$200,000.00</u>   | <u>\$2,000,000.00</u> | -                     | -                   | -                   |
| <u>Replacement of SCBA</u>                                                                                                                                       | -                     | <u>\$185,000.00</u>   | -                     | -                   | -                   |
| <u>John's Pass Boardwalk Repairs</u>                                                                                                                             | <u>\$50,000.00</u>    | <u>\$50,000.00</u>    | <u>\$50,000.00</u>    | -                   | -                   |
| <u>Johns Pass Park - Parking lot improvements</u>                                                                                                                | <u>\$450,000.00</u>   | -                     | -                     | -                   | -                   |
| <u>Engineering and Construction of a City Parking Garage</u>                                                                                                     | <u>\$250,000.00</u>   | <u>\$3,000,000.00</u> | <u>\$3,000,000.00</u> | -                   | -                   |
| <u>Construct Basketball Court Enclosure</u>                                                                                                                      | -                     | <u>\$300,000.00</u>   | -                     | -                   | -                   |
| <u>Construct Concession Stand</u>                                                                                                                                | <u>\$250,000.00</u>   | -                     | -                     | -                   | -                   |
| <u>Renovate Dog Park</u>                                                                                                                                         | <u>\$200,000.00</u>   | -                     | -                     | -                   | -                   |
| <u>Install Recreation Center Solar Panels</u>                                                                                                                    | <u>\$100,000.00</u>   | -                     | -                     | -                   | -                   |
| <u>Shade Awnings and Dugout Replacement</u>                                                                                                                      | -                     | <u>\$150,000.00</u>   | -                     | -                   | -                   |
| <u>Resurfacing of Marina Parking Area</u>                                                                                                                        | -                     | -                     | <u>\$400,000.00</u>   | -                   | -                   |
| <u>Seawall Renovation Project at City Marina</u>                                                                                                                 | -                     | <u>\$200,000.00</u>   | -                     | -                   | -                   |
| <u>Construct Transient Docks at City Marina</u>                                                                                                                  | <u>\$200,000.00</u>   | <u>\$1,000,000.00</u> | -                     | -                   | -                   |
| <u>Parking Equipment - City Wide</u>                                                                                                                             | -                     | -                     | -                     | <u>\$225,000.00</u> | <u>\$225,000.00</u> |
| <u>Replace a 2016 Peterbilt garbage truck</u>                                                                                                                    | -                     | <u>\$290,000.00</u>   | -                     | -                   | -                   |
| <u>Watershed Management Plan</u>                                                                                                                                 | <u>\$95,000.00</u>    | <u>\$48,000.00</u>    | -                     | -                   | -                   |
| <u>Mill and resurface, curb repair and stormwater drainage improvements at Area 3 - East Parsley, West Parsley, Marguerite, A Street, B Street, and Lynn Way</u> | <u>\$1,500,000.00</u> | <u>\$1,500,000.00</u> | -                     | -                   | -                   |
| <u>Mill and resurface, curb repair, and stormwater drainage improvements at Area 5 – 131<sup>st</sup> Ave E &amp; 129<sup>th</sup> Ave.</u>                      | <u>\$1,000,000.00</u> | <u>\$1,000,000.00</u> | -                     | -                   | -                   |
| <u>Mill and resurface, curb repair and stormwater drainage improvements at Area 6 - 155th Ave, 154th Ave, 153rd Ave, 1st St</u>                                  | <u>\$200,000.00</u>   | <u>\$2,000,000.00</u> | <u>\$1,500,000.00</u> | -                   | -                   |

E, 2nd St E, Harbor Dr and  
Municipal Dr

|                                                                                    |                       |                     |                     |   |   |
|------------------------------------------------------------------------------------|-----------------------|---------------------|---------------------|---|---|
| <u>Emergency Stormwater Repairs<br/>throughout the City</u>                        | <u>\$200,000.00</u>   | <u>\$200,000.00</u> | <u>\$200,000.00</u> | - | - |
| <u>Gulf Lane and Beach Access<br/>Drainage and Roadway<br/>Improvement Project</u> | <u>\$2,500,000.00</u> | -                   | -                   | - | - |
| <u>Generator replacement for 141st<br/>Stormwater Station</u>                      | <u>\$125,000.00</u>   | -                   | -                   | - | - |
| <u>Interior and Exterior Maintenance<br/>of Structures at Archibald Park</u>       | <u>\$350,000.00</u>   | -                   | -                   | - | - |
| <u>Beach Groin Renourishment<br/>Project</u>                                       | <u>\$3,500,000.00</u> | <u>\$750,000.00</u> | -                   | - | - |

Source: The City of Madeira Beach, 2022.

#### 4.9.1 Concurrency Management

Concurrency Management is no longer required by Florida Statutes.

#### 4.10 PUBLIC SCHOOL FACILITIES

The data and analysis provided in the Pinellas County Public School Facilities Element [Lifelong Learning] is adopted by reference and serves as the data and analysis for the goals, objectives, and policies proposed in this EAR-based amendment. Two schools are located in the City of Madeira Beach. There are no locations within the City proposed for future schools; therefore, no map is needed to depict future conditions. The existing Madeira Beach Elementary School is proposed for replacement during the long-range planning period, 2010-11 to 2015-16. However, the capital improvement costs are not provided per fiscal year and cannot be allocated in the Schedule of Capital Improvements until more information is provided from the Pinellas School District. As the goals, objectives, and policies indicate, ongoing coordination will ensure that future updates to the Schedule of Capital Improvements will reflect proposed improvements to the Madeira Beach Elementary School.

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## 6.0 APPENDICES

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### 6.46.1 Madeira Beach Comprehensive Plan Maps

6.1a Madeira Beach Future Land Use Map

6.1b Madeira Beach Roadway Network Map

6.1c Madeira Beach Public Transit Map

6.1d Madeira Beach Active Transportation Map

6.1e Madeira Beach Coastal High Hazard Area Map

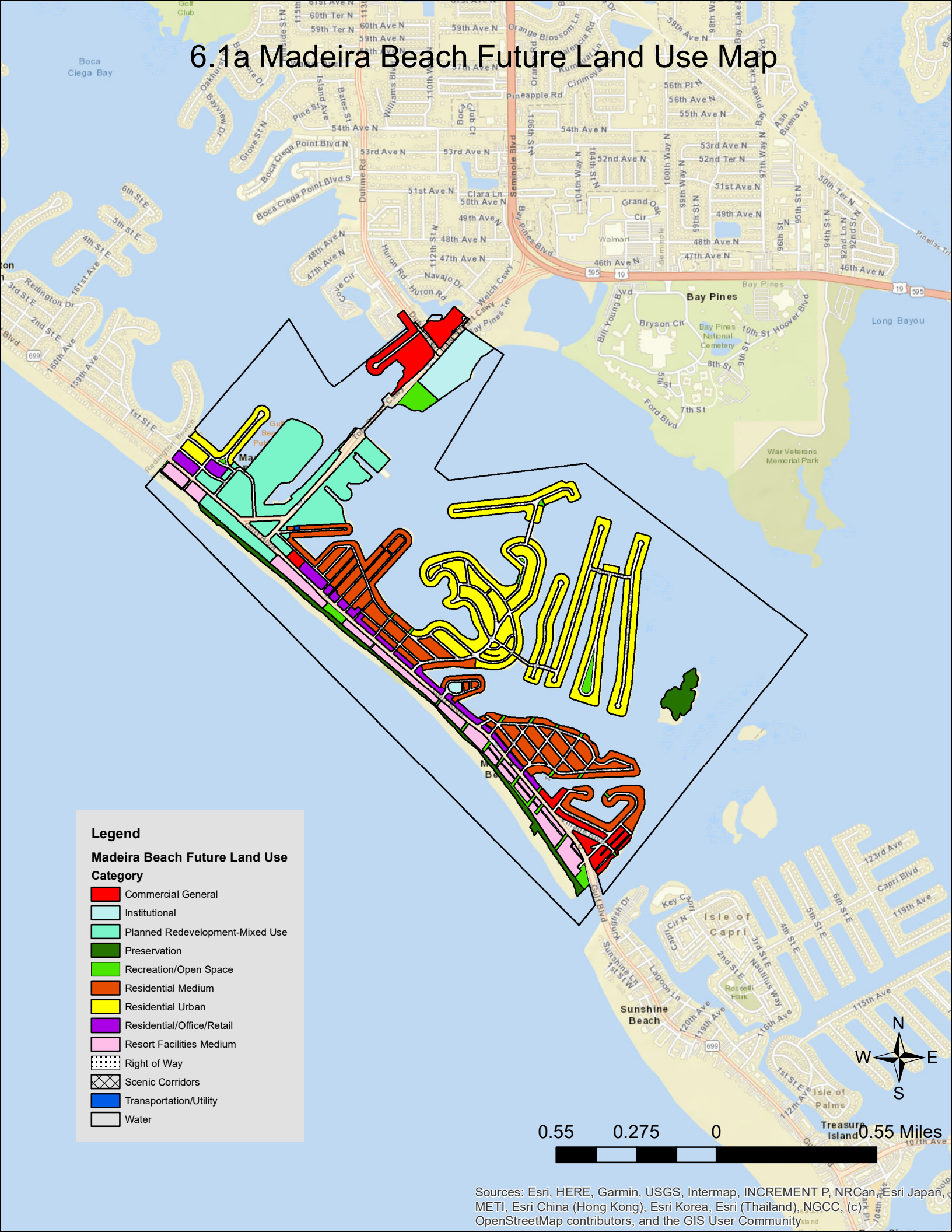
6.1f Madeira Beach Environmental Map

# 6.1a Madeira Beach Future Land Use Map

**Legend**

**Madeira Beach Future Land Use Category**

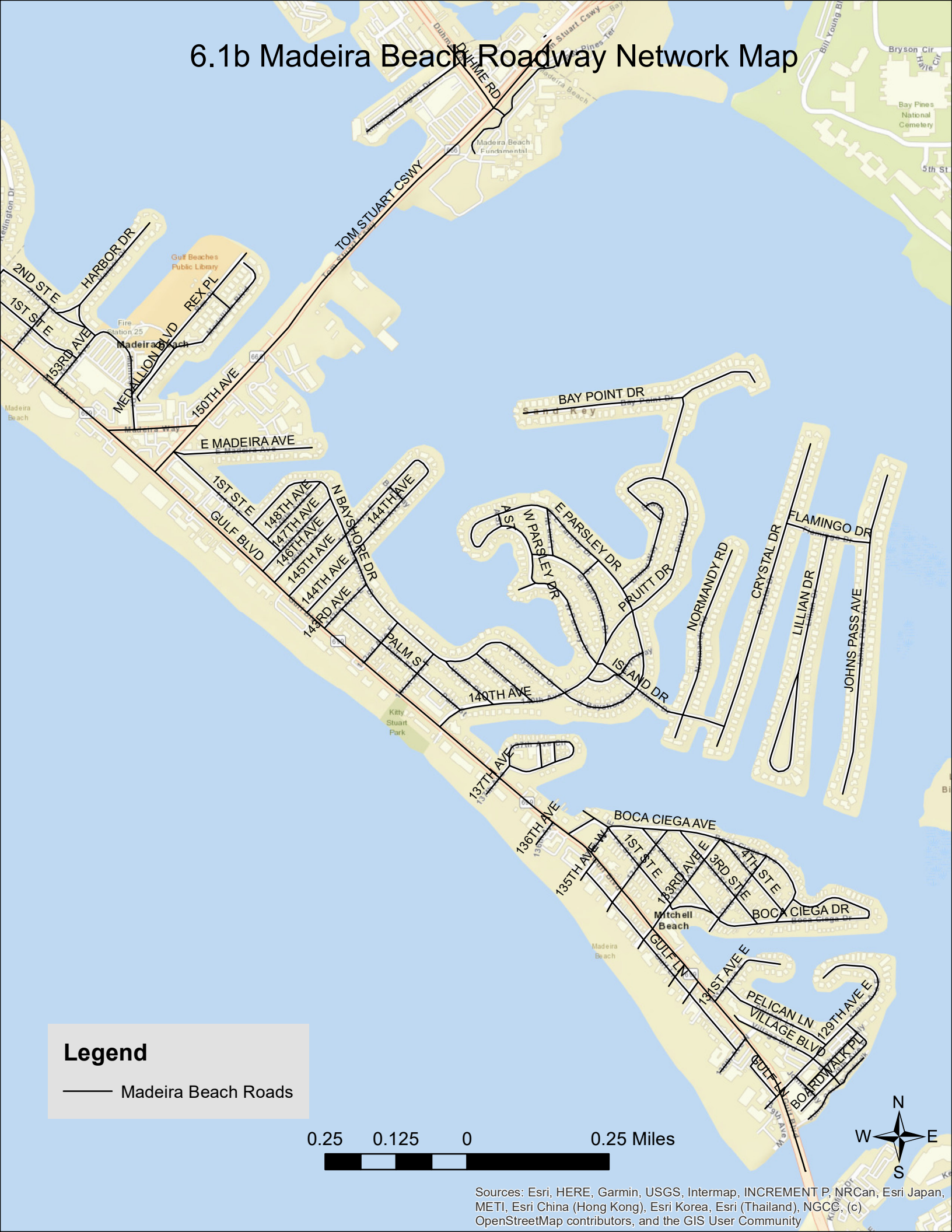
- Commercial General
- Institutional
- Planned Redevelopment-Mixed Use
- Preservation
- Recreation/Open Space
- Residential Medium
- Residential Urban
- Residential/Office/Retail
- Resort Facilities Medium
- Right of Way
- Scenic Corridors
- Transportation/Utility
- Water



0.55 0.275 0 0.55 Miles

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# 6.1b Madeira Beach Roadway Network Map



## 6.1c Madeira Beach Public Transit Map



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# 6.1d Madeira Beach Active Transportation Map



**6.1e Madeira Beach Coastal High Hazard Area Map**

This map displays the Madeira Beach Coastal High Hazard Area, which is shaded in light blue with diagonal hatching. A thick red line indicates the evacuation routes, starting from the beach area and extending inland. The map includes a legend, a scale bar (0 to 0.45 miles), and a north arrow. The background shows a street map of Madeira Beach, Florida, with various streets and landmarks labeled.

**Legend**

- Evacuation Routes
- Coastal High Hazard Area

0.45 0.225 0 0.45 Miles

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

## Legend

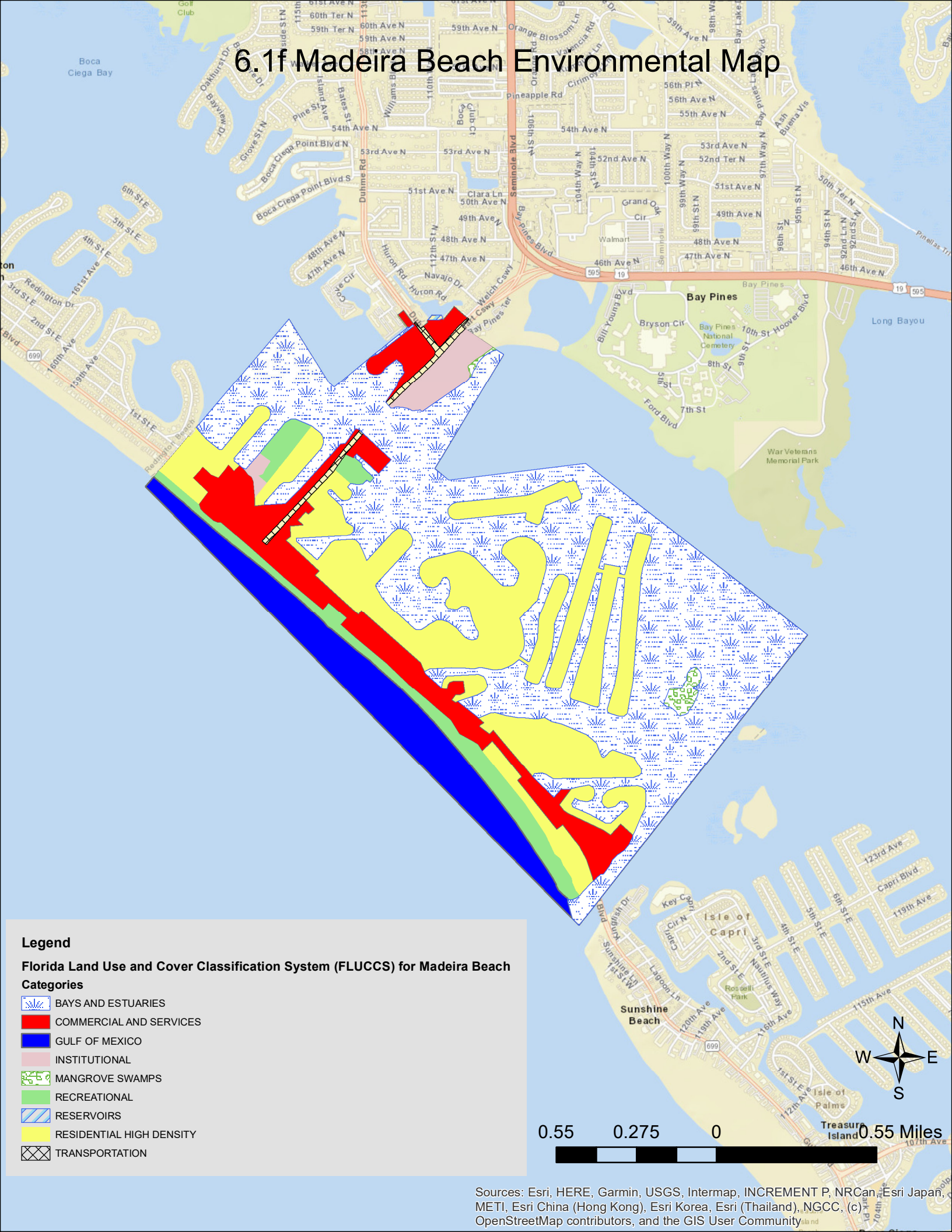
 Evacuation Routes

 Coastal High Hazard Area

0.45      0.225      0      0.45 Miles

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# 6.1f Madeira Beach Environmental Map



## Legend

### Florida Land Use and Cover Classification System (FLUCCS) for Madeira Beach

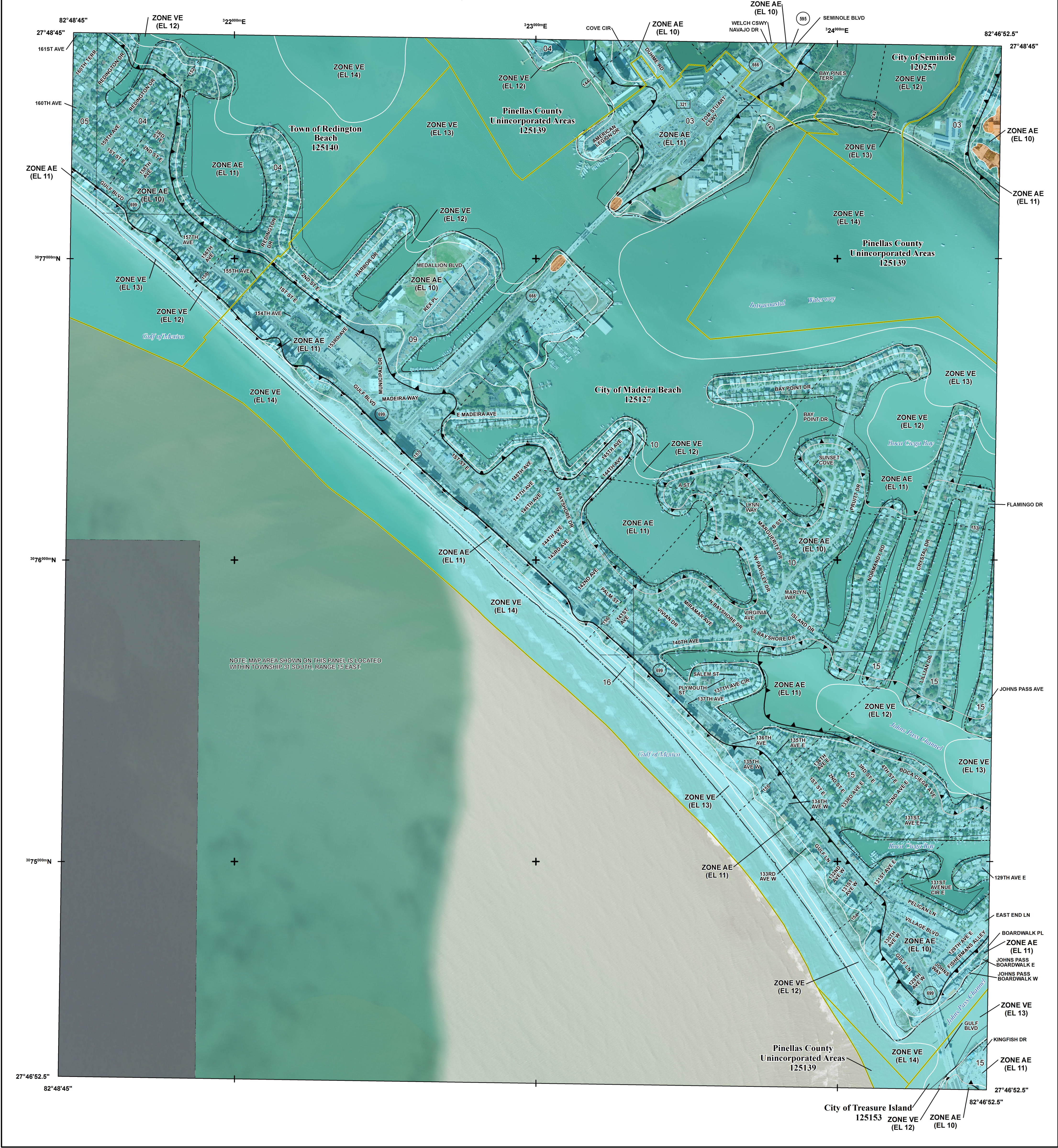
#### Categories

- BAYS AND ESTUARIES
- COMMERCIAL AND SERVICES
- GULF OF MEXICO
- INSTITUTIONAL
- MANGROVE SWAMPS
- RECREATIONAL
- RESERVOIRS
- RESIDENTIAL HIGH DENSITY
- TRANSPORTATION

0.55 0.275 0 0.55 Miles

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

6.1g Madeira Beach FEMA FIRM Map



FLOOD HAZARD INFORMATION

|                                                                                                                                                                                                                                                |                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT<br>THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT<br><a href="https://MSC.FEMA.GOV">HTTPS://MSC.FEMA.GOV</a> |                                                                                                                                                                   |
| SPECIAL FLOOD HAZARD AREAS                                                                                                                                                                                                                     | Without Base Flood Elevation (BFE)<br>Zone A,V, A99<br>With BFE or Depth Zone AE, AO, AH, VE, AR                                                                  |
|                                                                                                                                                                                                                                                | Regulatory Floodway                                                                                                                                               |
| OTHER AREAS OF FLOOD HAZARD                                                                                                                                                                                                                    | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
|                                                                                                                                                                                                                                                | Future Conditions 1% Annual Chance Flood Hazard Zone X                                                                                                            |
|                                                                                                                                                                                                                                                | Area with Reduced Flood Risk due to Levee See Notes. Zone X                                                                                                       |
|                                                                                                                                                                                                                                                | Area with Flood Risk due to Levee Zone D                                                                                                                          |
| OTHER AREAS                                                                                                                                                                                                                                    | NO SCREEN Area of Minimal Flood Hazard Zone X                                                                                                                     |
|                                                                                                                                                                                                                                                | Area of Undetermined Flood Hazard Zone D                                                                                                                          |
| GENERAL STRUCTURES                                                                                                                                                                                                                             | Channel, Culvert, or Storm Sewer                                                                                                                                  |
|                                                                                                                                                                                                                                                | Levee, Dike, or Floodwall                                                                                                                                         |
| OTHER FEATURES                                                                                                                                                                                                                                 | Cross Sections with 1% Annual Chance Water Surface Elevation                                                                                                      |
|                                                                                                                                                                                                                                                | Coastal Transect                                                                                                                                                  |
|                                                                                                                                                                                                                                                | Coastal Transect Baseline                                                                                                                                         |
|                                                                                                                                                                                                                                                | Profile Baseline                                                                                                                                                  |
|                                                                                                                                                                                                                                                | Hydrographic Feature                                                                                                                                              |
|                                                                                                                                                                                                                                                | Base Flood Elevation Line (BFE)                                                                                                                                   |
|                                                                                                                                                                                                                                                | Limit of Study                                                                                                                                                    |
|                                                                                                                                                                                                                                                | Jurisdiction Boundary                                                                                                                                             |

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

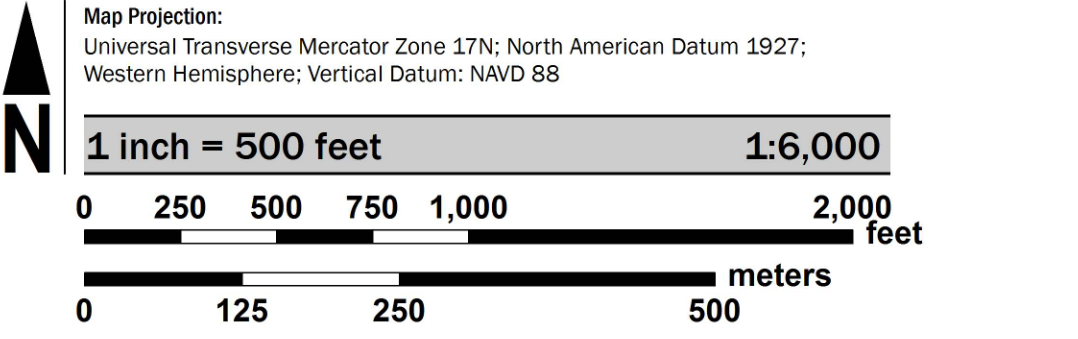
To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the Federal Emergency Management Agency, dated 2009; the Florida Department of Transportation, dated 2017; the Florida Resources and Environmental Analysis Center, dated 2003; Pinellas County, dated 2017; and the U.S. Department of Agriculture, dated 2016.

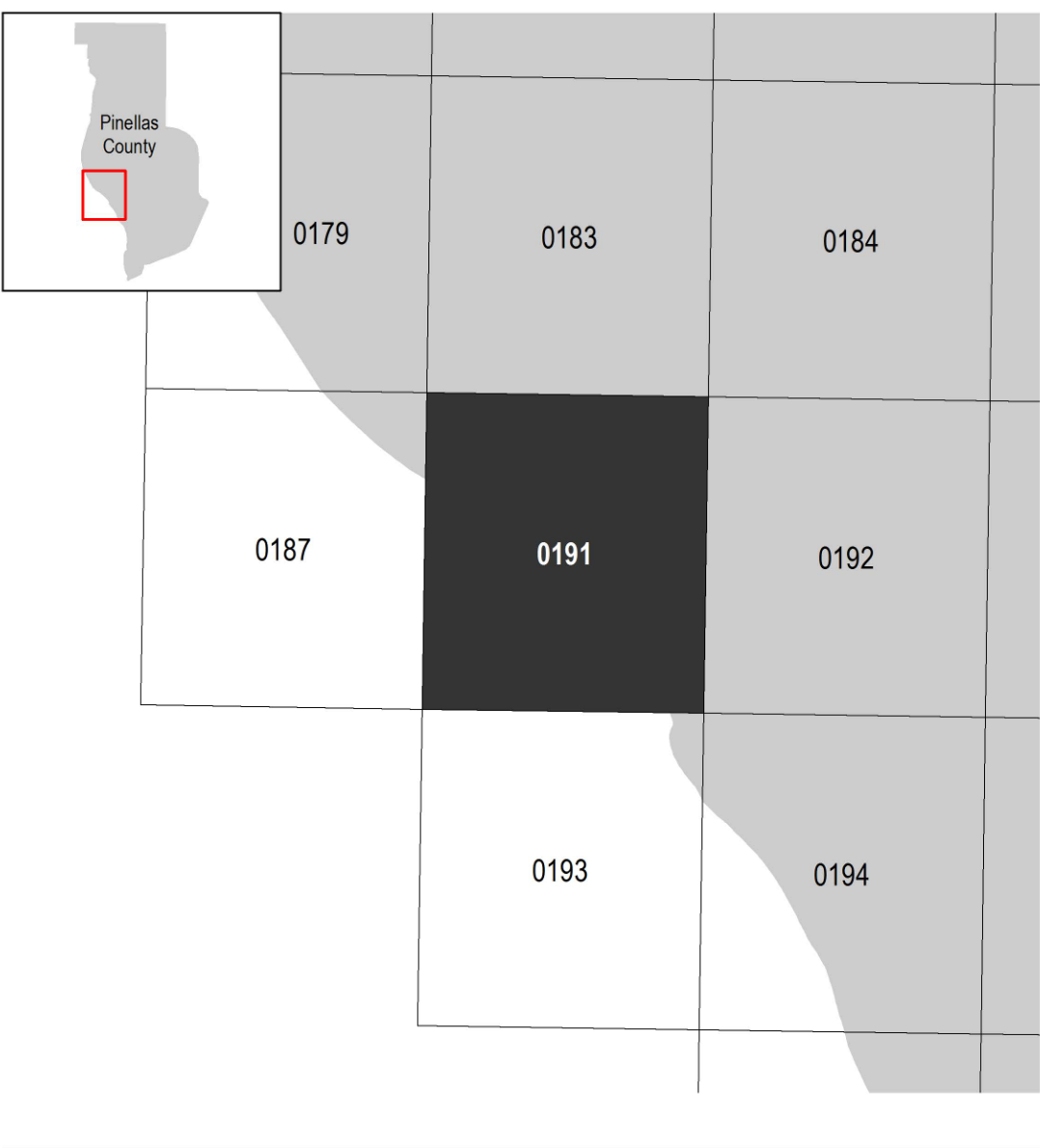
LIMIT OF MODERATE WAVE ACTION: Zone AE has been divided by a Limit of Moderate Wave Action (LMWA). The LMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between Zone VE and the LMWA (or between the shoreline and the LMWA for areas where Zone VE is not identified) will be similar to, but less severe than, those in the Zone VE.

Limit of Moderate Wave Action (LMWA)

SCALE



PANEL LOCATOR



National Flood Insurance Program

**NATIONAL FLOOD INSURANCE PROGRAM**  
**FLOOD INSURANCE RATE MAP**

**PINELLAS COUNTY,**  
**FLORIDA**  
and Incorporated Areas

PANEL 191 OF 327

Panel Contains:

| COMMUNITY                | NUMBER | PANEL | SUFFIX |
|--------------------------|--------|-------|--------|
| MADEIRA BEACH, CITY OF   | 125127 | 0191  | H      |
| PINELLAS COUNTY          | 125139 | 0191  | H      |
| REDINGTON BEACH, TOWN OF | 125140 | 0191  | H      |
| SEMINOLE, CITY OF        | 120257 | 0191  | H      |
| TREASURE ISLAND, CITY OF | 125153 | 0191  | H      |

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AUGUST 24, 2021