

EXECUTIVE  
SUMMARY



**To:** Patti McLauchlin, City Manager

**From:** Katie P. Halloran, Planning Director

**Meeting Date:** September 20<sup>th</sup>, 2022

**RE:** **Major Development Plan and Conditional Use** – 1405 Duval Street (RE# 00072082-001501) and 1406 Duval Street (RE# 00036370-000000) and 508 South Street (RE# 00036280-000000) – A request for approval of a major development plan and conditional use to construct a floating barrier anchored to submerged land on property located within the Historic Commercial Tourist and Conservation-Outstanding Waters (HCT & C-OW) zoning districts pursuant to Section 180-91.A, Section 122-62, and Section 122-129 of the Land Development Regulations of the Code of Ordinances of the City of Key West, Florida.

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**Background:**

The Application is a request for approval of major development plan and conditional use to install a floating seaweed barrier anchored to submerged land owned by the Applicants, the City of Key West, and the State of Florida. The “Subject Property” is located at the southernmost end of Duval Street, at approximately 1405 & 1406 Duval Street (and also anchored to 508 South Street). The zoning designation for the dry land properties surrounding the Subject Property is Historic Commercial Tourist (HCT), while the seaweed barrier will be installed within tidal waters which have a Conservation Outstanding Waters of the State (C-OW) zoning district designation.

In order to allow the proposed barrier system, several development approvals are necessary:

- Major Development Plan review is required for the seaweed barrier, because the proposed development will be located within tidal waters extending 600 feet seaward of the corporate city limits, pursuant to Section 108-91.A.2.(d) of the Land Development Regulations (LDRs) of the Code of Ordinances (the “Code”) of the City of Key West (the “City”).
- The applicable zoning district is Conservation Outstanding Waters of the State C-OW. Conditional use review is required for any development in land zoned Conservation, pursuant to City Code Section 122-129.

The request is being made due to the significant build-up of Sargassum seaweed that accumulates along the beach shoreline and dry lands surrounding the beach. The Applicant’s Benthic Resource Assessment advises the seaweed buildup is partially caused by the unusual shape of the shorelines near the Subject Property preventing the seaweed from naturally flowing. Per the Applicant, seaweed buildup on the shore and shallows near the site has for years created a concern to people and wildlife in the area. Once the seaweed lands on the beach, it begins decomposing and emits hydrogen sulfide, which has an unpleasant odor, and has been linked to respiratory issues, nausea, and irritation of the eyes. Per the Florida Department of Health, the tiny sea creatures that live in Sargassum can irritate skin with direct contact. Additionally, the seaweed buildup makes the shallows near the shoreline thick with seaweed making them unsafe and unpleasant to swim in.

In addition to review of the proposal with respect to the City's land development regulations, the proposal was reviewed and approved by the Florida Department of Environmental Protection and the Army Corps of Engineers. Permit conditions provided by State and the Federal agencies shall be satisfied by the Applicant per the general condition of approval #5 in Resolution No. 2022-042, approved by the City's Planning Board on August 18<sup>th</sup>, 2022.



*Aerial image showing the configuration of the proposed seaweed barrier with anchoring points at 1400 Duval Street and 508 South Street. The barrier system has an approximate length of 495 linear feet and will service an area approximately 61,791 square feet.*



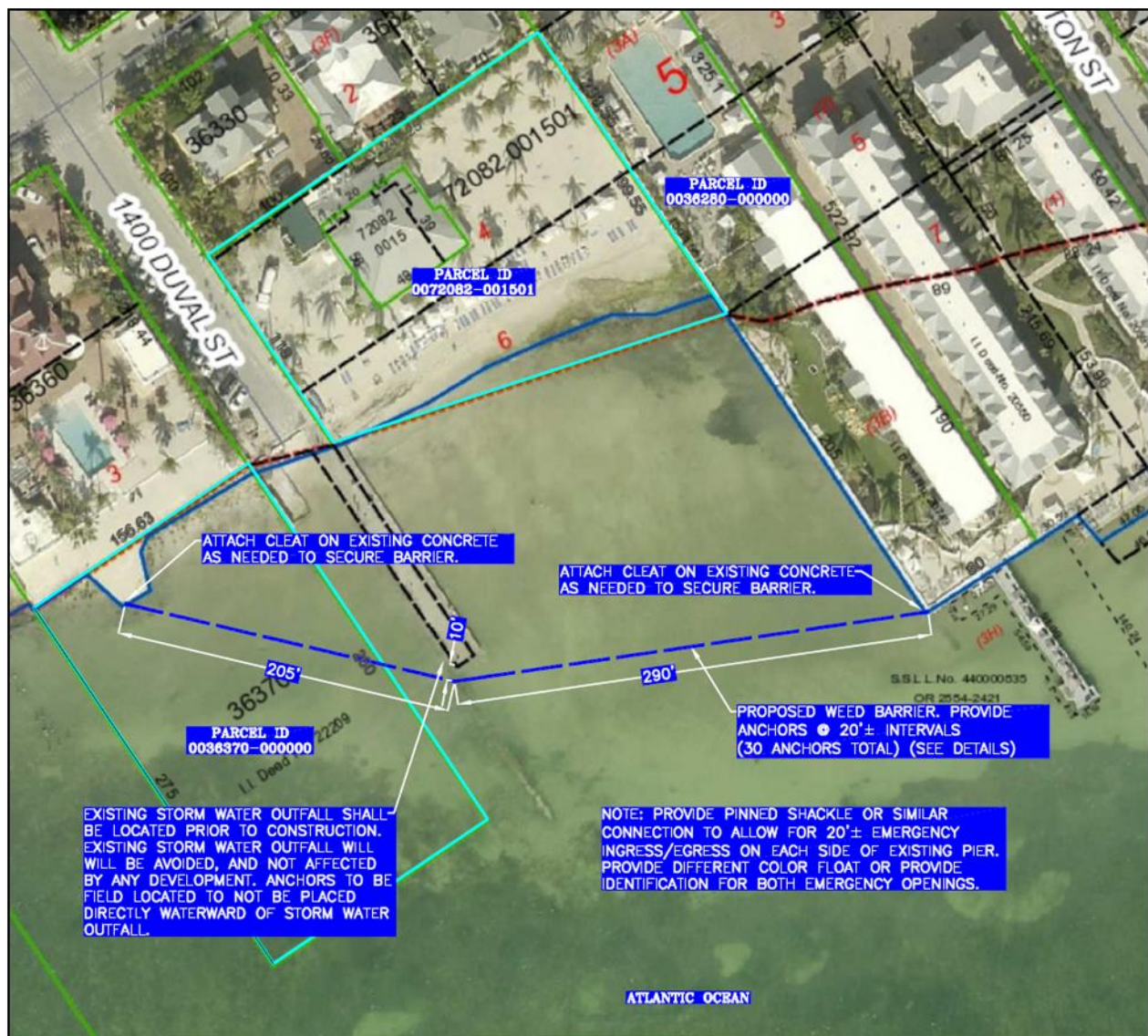
*Photographs provided by the Applicant demonstrating seagrass accumulation on the beach of the Subject Property.*



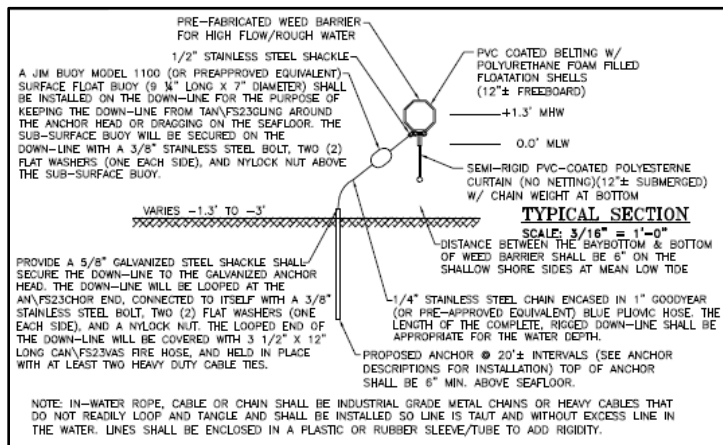
**Request:**

The proposed seaweed barrier is designed to prevent the significant accumulation of waterborne marine debris, primarily the floating marine algae Sargassum, that accumulates at this location. In the past few years quantities of sargassum throughout the Caribbean has significantly increased due to a likely combination of warmer waters associated with climate change, high ocean nutrient levels and deforestation. Per the University of South Florida's Satellite-based Sargassum Watch System, in June 2022 the Sargassum in the Central Atlantic reached a historical peak.

The proposed seaweed barrier is a floating system anchored to the seafloor by 30 anchors, extending 495 linear feet across the open water area at the terminus of Duval Street, an area approximately 61,791 square feet. The following is the site plan for the proposed seaweed barrier system, prepared by Glen Boe and Associates. Included is a Typical Section drawing showing the floating system consisting of a PVC coated belting with flotation shells, anchored to the seafloor with a steel chain and anchors.



*Proposed Site Plan of the floating barrier system.*



*Typical section of seaweed barrier system and photograph of similar mechanism.*

### Major Development Review Process:

Development Review Committee:  
 Planning Board Meeting:  
 Tree Commission Meeting  
 HARC Commission Meeting:  
 City Commission:  
 Local Appeal Period:  
 Planning renders to DEO for review:

May 27, 2021  
 August 18, 2022  
 NA  
 NA  
 September 20, 2022  
 10 Days  
 Up to 45 days

### Planning Staff Analysis:

Staff determined the proposal is in compliance with the Major Development Plan Review Criteria (Section 108-91.A.2).

Planning staff and the Planning Board, as required by Section 108 of the City Code reviewed the request for compliance with the Land Development Regulations and the Comprehensive Plan as detailed in the attached Planning Board staff report. The proposed Major Development Plan was reviewed before the Planning Board on August 18, 2022. The Planning Board recommended approval with conditions through Resolution No. 2022-042, attached.

### Recommendation:

The Planning Department and Planning Board, based on the criteria established by the Comprehensive Plan and the Land Development Regulations, recommend that the request for a Major Development Plan and Conditional Use be **Approved** with the following conditions:

### General Conditions:

1. The proposed construction shall be in substantial compliance with the site plans signed, sealed, and dated 7/11/2022 by Glen Boe and Associates, Inc. Construction drawings for permitting shall be dated as approved herein, with any proposed revisions (modifications) clearly noted and dated. Development plan modifications that do not rise to the status of minor or major plan modifications may be approved by the city planner as per Section 108-91.C.1. All modifications shall be submitted for review and approval to the Planning Department prior to building permit application. Minor and major development plan modifications are addressed as per Section 108-91.C.

2. The outfall pipe location is approximate. Anchors on the side of the pier with the outfall may need to be adjusted to avoid impact to the pipe. The applicant shall advise their contractor to locate the outfall pipe and make adjustment to placement of the anchors to avoid damage to the outfall pipe.
3. All conditions listed on the FDEP and ACOE permits (when issued) shall be followed. ACOE permit is required prior to submittal of a building permit.
4. There are provisions of the USACE Weed Barrier Management Plan that address floating debris and seagrass removal from the barrier. The applicant shall coordinate with appropriate state and federal agencies to identify frequency of removal to ensure no impact to adjacent properties/shorelines from excess accumulations of floating debris/seagrass.
5. The applicant shall provide notice to the City of Key West City Manager's Office and to the Code Compliance Department of any complaints received associated with nuisance accumulation of floating debris/sargassum on adjacent properties attributable to the barrier. The barrier design and placement shall be modified in coordination with the City, and may include removal of the barrier, if impacts to surrounding properties or public areas are substantiated.
6. All materials associated with construction and placement of the barrier shall be contained in an upland storage area. No materials shall be temporarily stored on the beach area near the shoreline.
7. Best management practices for erosion control and turbidity shall be followed. Any materials that accidentally fall into the water shall be immediately retrieved.
8. Endangered Species protective measures for manatees, sea turtles, and sawfish shall be followed.
9. The barrier, once installed, shall be inspected on a daily basis to insure there are no marine entanglements and all repairs that are required will be performed in a timely manner.
10. Monitoring for sea turtle nests shall be done during the turtle nesting season. Coordination with the local sea turtle club shall be initiated for the monitoring patrols and reports to the FWCC.