# SUMMARY

## FEASIBILITY STUDY

1.1 Introduction 3  
1.2 Site Location & Description 3  
1.3 Platting 3  
1.4 Floodplain and Finished Floor Elevation 3  
1.5 Storm Drainage and Detention Analysis 4  
1.6 Water and Sewer Facilities 4  
1.7 Franchise Utilities 4  
1.8 Building Setbacks 5  
1.9 Other Civil Site Development Requirements 5

## ATTACHMENTS

| Attachment A |  | Site Vicinity Map / Harris County Appraisal District (HCAD) Map / HCAD Property Information |
| Attachment B | Preliminary Plat |
| Attachment C | FEMA Map/ Contour Map |
| Attachment D | Site Plan / Drainage Plan / Chesapeake Master Planned Exhibit |
| Attachment E | Elam Road Exhibit |
| Attachment F | Off-site Cost Breakdown / Site Work Cost Breakdown |
| Attachment G | City of Seabrook PUD Letter |
| Attachment H | Shelmark Capabilities Statement |
EXECUTIVE SUMMARY

It has been determined that there are no issues that will preclude development of the project on this site. Meetings have been held with the City of Seabrook Council, Planning & Zoning Commission and Staff, for the creation and approval of a Planned Unit Development (PUD) for Chesapeake Bay II which includes Seaside Lodge at Chesapeake as part of the overall development. Availability of utility services has been confirmed with The City of Seabrook and local franchise organization.

The civil site construction documents shall be prepared in conformance with the City of Seabrook ordinances, Engineering Design Criteria, Texas Accessibility Standard, 2015 International Building Code and 2015 International Fire Code for the approval and acceptance of infrastructure.

1.1 Introduction

This feasibility report presents platting, drainage, access and utility requirements for the development of Seaside Lodge at Chesapeake (The Lodge).

1.2 Site Location & Description

The proposed development is an undeveloped 4.06 acre tract out of a 7.67 acre tract recorded as TRS 5B & 34 ABST 52 R Morris. The tract address is 0 Larabee Ln, Seabrook, Texas 77586. The tract is located at the north west corner of the intersection of Larabee Street and Pate Street in Seabrook, Texas. The tract is owned by William M. Friedrichs Jr. See Attachment A for the Site Vicinity map, Harris County Appraisal District (HCAD) Information and Map.

1.3 Platting

The City of Seabrook will require that the tract be re-platted. See Attachment B for Preliminary Plat. The Re-Plat will be viewed by Planning and Zoning on March 15, 2018 for final approval.

1.4 Floodplain and Finished Floor Elevation

Floodplain. The subject tract is located in Zone "AE" defined as areas inside the 100 year flood plain; with a Base Flood Elevation of 13 feet; as scaled from Flood Insurance Rate Map Community Panel Number 48201C1095M, Map Revised January 6, 2017. See Attachment C for current FEMA map and City of Seabrook Contour map.
Finished Floor Elevation. The City of Seabrook requires for the minimum finish floor elevation for structures in Zones AE to be eighteen inches (18") above Base Flood Elevation (BFE). The proposed finished floor elevation for the buildings shall be 14.5 feet which is eighteen inches (18") above the BFE. The site will be raised to accommodate the building structures. The parking lot is estimated to be constructed at an average elevation of 13.5 feet.

1.5 Storm Drainage and Detention Analysis

The Lodge is not required to have detention. The site is part of the Chesapeake Master Development plan (Chesapeake). Chesapeake will provide an underground HDPE storm line for connection at the west property line of the Lodge. Chesapeake will drain the storm system to an existing Harris County Ditch on the north side of the proposed Storage Facility labeled Phase 2. See Attachment D Drainage plan and Chesapeake Master Planned exhibit.

1.6 Water and Sewer Facilities

Water: An eight inch (8") water line will be extended by Chesapeake from Repsdorph Rd on the south property line for connection near the proposed entrance to the development.

Sanitary: A ten inch (10") sanitary line is being extended by Chesapeake to the west property line of the Lodge. See Attachment D for site plan that demonstrates the proposed utility layout plan and Chesapeake Master Planned exhibit for overall utility layout.

The City of Seabrook has Building permit application fees as well as Impact fees for Water and Sewer services. The City Impact fees depend on the water meter size. The City will look at the cost of a compound meter to calculate it’s fees. The estimated impact fees for water and sewer are $487,646.00 dollars.

1.7 Franchise Utilities

Conversations have been held with the local franchise companies in the area to discuss service availability.

Electrical: Services are available on Larabee street from Centerpoint Energy.
Phone & Cable: Services are available on Larabee street from Comcast.
1.8 Building Setbacks

The building setbacks are:

- Front Setback: Minimum 20 feet adjacent to Larabee street.
- Side Setback: Minimum 5 feet from phase 3 and 4.
- Side Setback: Minimum 30 feet on east property line adjacent to Pate Street.

1.9 Other Civil Site Development Requirements

Off-site Requirements. Water and Sanitary services will be extended to the property line by Chesapeake. The site has access from Elam Street which ties to Nasa Road 1. Elam Street is an existing eighteen feet (18’) wide asphalt open ditch roadway that will be re-constructed into a thirty feet (30’) concrete curb and gutter street by Chesapeake. See Attachment E for Elam Road Exhibit. See Attachment F for Off-site and On-site construction cost breakdown.

Ingress and Egress. Seaside Lodge will have access from Elam Street as shown on the site plan. The City will approve the drive connections during the site plan approval.

Entitlement, Site Development, Building Permit Process.

1. Platting is accomplished through the City of Seabrook. The plat approval process is described above (Section 1.3).
2. Seaside Lodge is part of the Planned Unit Development for Chesapeake Bay II (PUD) which is in the process of being amended. See Attachment G for letter from the City of Seabrook describing the PUD amendment status, process, and time line.
3. Building permits usually take about 45 days from application to issuance. The estimated building permit fees are $54,250 dollars.

Shelmark Engineering. Shellmark Engineering, L.L.C. has an office in Dickinson, Texas and has been doing site development work in the Seabrook area for over 18 years. Shelmark is providing the civil engineering site development work for Chesapeake which is currently under construction. See Attachment H for more information about Shelmark.
ATTACHMENT A

SITE VICINITY MAP
HARRIS COUNTY APPRAISAL DISTRICT MAP
HARRIS COUNTY APPRAISAL DISTRICT PROPERTY INFORMATION
**HARRIS COUNTY APPRAISAL DISTRICT**

**REAL PROPERTY ACCOUNT INFORMATION**

**0410080090030**

**Owner and Property Information**

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<tr>
<th>Legal Description:</th>
<th>TRS 5B &amp; 34 ABST 52 R MORRIS</th>
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<tr>
<td>Property Address:</td>
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<th>Neighborhood</th>
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<th>Jurisdictions</th>
<th>Exemption Value</th>
<th>ARB Status</th>
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<th>2018 Rate</th>
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Texas law prohibits us from displaying residential photographs, sketches, floor plans, or information indicating the age of a property owner on our website. You can inspect this information or get a copy at [HCAD's information center at 13013 NW Freeway](https://public.hcad.org/records/Print.asp?taxyear=2018&acct=0410080090030&card=1&bl... 2/22/2018)

**Valuations**

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**Building**

Vacant (No Building Data)
ATTACHMENT B

PRELIMINARY PLAT
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/22/2018 at 8:49:40 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.
ATTACHMENT E

ELAM ROAD EXHIBIT
ATTACHMENT F

OFF-SITE COST BREAKDOWN
SITE WORK COST BREAKDOWN
## Off-Site Cost Breakdown

This form must be submitted with the Development Cost Schedule if the development has offsite costs, whether those costs are included in the budget as a line item, embedded in the acquisition costs, or referenced in utility provider letters. Therefore, the total costs listed on this worksheet may or may not exactly correspond with those off-site costs indicated on the Development Costs Schedule. However, all costs listed here should be able to be justified in another place in the application.

**Column A:** The offsite activity reflected here should correspond to the offsite activity reflected in the Development Cost Schedule or other supporting documentation.

**Columns B and C:** In determining actual construction cost, two different methods may be used:

**Column D:** To arrive at total construction costs in Column D:

**Column E:** Any proposed activity involving the acquisition of real property, easements, rights-of-way, etc., must have the projected costs of this acquisition for the activity.

**Column F:** Engineering/architectural costs must be broken out by the offsite work activity.

**Column G:** Figures for Column G, Total Activity Cost, are obtained by adding together Columns D, E, and F to get the total costs.

**ALL contingency must be included in the Contingency line item on the Development Cost Schedule and NOT on this form**

**This form must be completed by a professional engineer licensed to practice in the State of Texas. His or her signature and registration seal must be on the form.**

<table>
<thead>
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<th>A. Activity</th>
<th>B. Labor or Unit Price</th>
<th>C. Materials or # of Units</th>
<th>D. Total Construction Costs</th>
<th>E. Acquisition Costs</th>
<th>F. Engineering / Architectural Costs</th>
<th>G. Total Activity Costs</th>
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**Total**                                         |                        |                             | $1,128,870                 |                      |                                     |                         |

Signature of Registered Engineer responsible for Budget Justification

Printed Name

Date

If a revised form is submitted, date of submission:

Seal
This form must be submitted with the Development Cost Schedule as justification of Site Work costs.

**Column A:** The Site Work activity reflected here must match the Site Work activity reflected in the Development Cost Schedule.

**Columns B and C:** In determining actual construction cost, two different methods may be used:

- The construction costs may be broken into labor (Column B) and materials (Column C) for the activity; OR
- The use of unit price (Column B) and the number of units (Column C) data for the activity.

**Column D:** To arrive at total construction costs in Column D:
- If based on labor and materials, add Column B and Column C together to arrive at total construction costs.
- If based on unit price measures, Column B is multiplied by Column C to arrive at total construction costs.

**Column E:** Any proposed activity involving the acquisition of real property, easements, rights-of-way, etc., must have the projected costs of this acquisition for the activity.

**Column F:** Engineering/architectural costs must be broken out by the Site Work activity.

**Column G:** Figures for Column G, Total Activity Cost, are obtained by adding together Columns D, E, and F to get the total costs.

**This form must be completed by a Third-Party engineer licensed to practice in the State of Texas. His or her signature and registration seal must be on the form.**

For Site Work costs that exceed $15,000 per Unit and are included in Eligible Basis, a CPA letter allocating which portions of those site costs should be included in Eligible Basis and which ones may be ineligible must be submitted behind this tab.

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<th>Activity</th>
<th>B. Labor or Unit Price</th>
<th>C. Materials or # of Units</th>
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<td>$1,373,420</td>
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Signature of Registered Engineer

Printed Name

Date

If a revised form is submitted, date of submission: ____________________________
ATTACHMENT G

CITY OF SEABROOK PUD LETTER
February 27, 2018

Seaside Lodge at Chesapeake Bay, LP
26302 Oak Ridge Drive, Suite 100
Spring, Texas 77380
Attn: David Mark Koogler

Re: PUD Amendment for Seaside Lodge at Chesapeake Bay, TDHCA #18320
NE Corner of Elam Street & Larabee Street, Seabrook, Harris County, TX 77586

Mr. Koogler,

As requested, please find the schedule, along with status of the requested zoning amendment, for the site known as Seaside Lodge at Chesapeake Bay (“Seaside Lodge”). The Seaside Lodge site is located within the Chesapeake Bay II Planned Unit Development, City of Seabrook Ordinance No. 2017-14 (“PUD”). The PUD currently contains a mixed use development consisting of light commercial retail, mini storage warehouse, and 138 units of age restricted multi-family apartments. The PUD, as you have requested, is in the process of being amended to, among other things, provide for a three story, 92 unit age restricted multi-family apartment complex named Seaside Lodge (“PUD Amendment”).

On February 15, 2018, the Planning and Zoning Commission met and unanimously recommended to City Council the approval of the requested PUD Amendments. The PUD Amendments are scheduled to be considered by City Council at their regularly scheduled meeting to be held on March 20, 2018. This meeting will serve as the required first reading of the ordinance. On April 3, 2018, City Council will have a second hearing relating to the request. At this time, final approval will be determined. This meeting will serve as the second reading of the ordinance.

City Council, at the February 6, 2018 city council meeting, approved Resolution 2018-10 supporting the Seaside Lodge Low Income Housing Tax Credit Project along with Resolution 2018-11 pledging an in-kind participation of an amount not to exceed $500.00.

The City has received a release whereby the applicant for the zoning change has agreed to hold the City and all other parties harmless in the event the appropriate zoning (amendment to PUD) is not granted.

If we may be of any further assistance, please feel free to contact Sean Landis at (281) 291-5705 or by E-mail slandis@seabrooktx.gov.

Regards,

Gayle Cook
City Manager
City of Seabrook
ATTACHMENT H

SHELMARK CAPABILITIES STATEMENT
Shelmark Engineering provides design services including civil, structural, and marine engineering services to coastal communities along the Texas Gulf Coast since 2000.

Our project development includes research, planning, evaluation, design, bid procurement and construction administration. We specialize in permitting processes with environmental constraints such as wetlands and critical habitats; high wind and flood design for storm events; floodplain mitigation; and challenging soil conditions for both private & public projects.

Our experience leads to a common sense approach that results in a successfully completed project within budget and on schedule.

**Our Services**

**CIVIL** - All facets of the project development including research, planning, evaluation, design, bid procurement and construction administration for private/public infrastructure projects.

- Site Assessments/Feasibility Studies
- Site Plans
- Storm Water Drainage Plans/ Detention Facilities/Excavation & Mitigation Plans
- Roads/Bridges/Parking Lot Designs
- Wastewater Collection Systems/Pump Stations/Low Pressure Sanitary Systems
- Water Distribution Systems/Utility Extensions
- Recreation & Municipal Facilities/Commercial Centers
- Residential Subdivisions
- Project Coordination for Building Permits
- Local & TXDOT Permitting
- SWQMS/SWPPP Plans

**MARINE / COASTAL** - Environmental constraints/critical habitats; permitting processes; high wind and flood loads factors for storm events; floodplain mitigation; and challenging soil conditions for projects for individuals to Ports.

- Bulkhead/Shoreline Protection Systems
- Mooring & Breasting Structures
- Pile Foundations & Platforms
- Marinas/Boardwalks/Piers/Boat Houses
- Dredging Plans/Maintenance Permits
- Waterfront Facility Design/Expansions
- Dock Assessments & Inspections
- Regulatory Permits - Municipal, State & Federal

**STRUCTURAL** - Analysis and design from footings to finite element analysis (FEA) for complex structural framing systems based on high wind conditions for commercial, industrial, petrochemical, public and private markets.

- Structural Assessment and Inspections/Code Reviews
- Residential & Commercial Building Foundations
- Storage Tank & Equipment Foundation
- Reinforced Concrete/Piling Foundations for Elevated Structures
- Concrete Tiltwall Buildings/Masonry Wall Design
- Steel and Timber Design and Analysis
- Pedestrian Walks and Bridges
- Finite Element Analysis & Numerical Modeling
- Windstorm Design and Inspections

**Project Portfolio**

- **Marina Expansion at NAS, Corpus Christi, Texas**
  Navy Installations Command (CNIC)
  Contact: Commander David Munnell
  Phone: (901) 874-6667

- **BMW Vehicle Processing Center - Galveston, Texas**
  Port of Galveston
  Contact: Mr. Peter Simons
  Phone: (409) 766-6113

- **Sunset Cove Subdivision - Galveston**
  Sunbird Development, L.P.
  Contact: Mr. Ross Novelli, Jr.
  Phone: (409) 737-9700

- **Elevated Grain Tank Platform**
  Sweetwater, Texas
  Contact: Mr. John D. Mercer
  Phone: (361) 782-7121

- **Silverleaf Seaside Resort - Buildings 18, 35, 36**
  Infrastructure and Building
  Silverleaf Resort, Inc., Galveston

- **Century AC Showroom & Warehouse Complex**
  Bearotti, LTD, League City
  Contact: Mr. Jim Walker
  Phone: (281) 451-7703

- **Estate's Bathhouse - Seawall Galveston**
  Pier Properties, Inc.
  Contact: Mr. Jim Little
  Phone: (409) 771-0323

- **Evia Subdivision - Galveston**
  Sullivan Interests, L.T.D.
  Contact: William Sullivan - Principal
  Phone: (713) 880-8411

*www.shelmark.net*