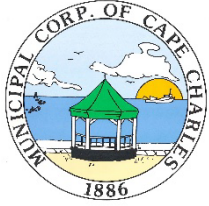


TOWN COUNCIL
Special Meeting
July 12, 2022
Cape Charles Civic Center
Immediately Following Joint Work Session

1. Call to Order
 - A. Roll Call
 - B. Establish quorum
2. Moment of Silence and Pledge of Allegiance
3. Public Comments on Agenda Item Only (3 minutes per speaker)
4. Order of Business:
 - *A. Town Facilities Design and Engineering
5. Town Manager Comments
6. Mayor & Council Comments (5 minutes per speaker)
7. Adjournment

 TOWN OF CAPE CHARLES	AGENDA TITLE: Town Facilities Design & Engineering		AGENDA DATE July 12, 2022
	SUBJECT/PROPOSAL/REQUEST: Approve contract change order for design and engineering phase.		ITEM NUMBER: 4A
	ATTACHMENTS: 1. Responses to comments. 2. Proposed HBA contract change order.		FOR COUNCIL: Action (X) Information ()
	STAFF CONTACT (s): Bob Panek, Project Manager	REVIEWED BY: John Hozey, Town Manager	

BACKGROUND:

With the assistance of HBA, we have completed an analysis of alternatives to address the many deficiencies of the current Town facilities housing the administrative, police, library, and council chamber functions. Council selected Option 5 to advance to the design and engineering phase. This option would construct a new building for all functions except the library. The library would remain at the current location and be renovated. The Municipal and Civic Center buildings and third floor of the Library building would be sold. Additionally, Council has directed that planning be initiated to construct a public restroom in the downtown business district. Council reviewed the proposed change order to the HBA contract for design and engineering of the new municipal building, library renovation and public restroom at the June 16, 2022 regular meeting, and requested that several comments be addressed before moving forward.

DISCUSSION:

Staff has worked with HBA to address the comments; see attachment 1. The significant concerns relate to having only a 90% cost estimate, the number of Principal Architect hours, and the design schedule as compared to the nominal construction duration referenced in Tasks 9 & 10 (which are not funded in this change order). The scope and fee proposal has been revised to:

1. Add a 60% cost estimate. This increased the cost estimator fee by \$8.6K. A breakdown of this effort is included to explain the hours for the three projects.
2. Reduce Principal Architect hours to compensate for the increase above. Total fee remains the same. The attachment explains that the hours are related to integrating the three projects into one acquisition to achieve efficiencies.
3. Reduce design schedule from 315 to 240 days. This assumes timely review and approval of products by the Town. Acceleration of the downtown restroom schedule is accommodated by specifying a 90-day construction schedule in the bidding documents.

The revised scope and fee proposal is included in attachment 2. The fee of \$509,950.10 would take the project through construction bidding. HBA has also provided a preliminary estimate of \$118,000 for construction administration. This is not included in the proposed contract change order and will be contracted for after a construction decision is made. The estimated total of \$627,950 compares favorably with the \$823,650 for design, engineering, construction administration and contingency included in the Option 5 estimate, which did not include the public restroom.

The proposed FY 2023 budget includes \$584,000 for design and engineering of the new municipal building and library renovation, as well as \$110,000 for the downtown restroom. The proposed fee of \$509,950.10 is well within these amounts.

HBA is preparing an additional proposal for design and engineering of the beach restroom renovation on the same schedule as the downtown restroom. If acceptable, this would be added to the contract via a subsequent change order.

The Town Manager has approval authority for professional services contracts up to \$30,000. Contracts above that amount require approval of Council.

RECOMMENDATION:

Staff recommends that Council authorize the Town Manager to execute the attached change order.

June 24, 2022

Responses to Councilman Bennett's Comments

- Overall, the fee is not out of line - 10 or 11% of construction cost is high, but not unusual
- Architectural hours seem high for this effort - Principal hours should only be 8 - 12. Architect fee could be \$50K less. I said \$100 last night, but have relooked it.

We have refined the Principal hours downward as you will see in the revised proposal, and we feel that they are appropriate for the project given that this is actually three projects in one. This factor adds to the required management effort to ensure that everything is coordinated properly and delivered on time. This is particularly important to complete the Restroom Building on the accelerated schedule desired by the Town, but still in a cost-efficient manner. One of the key values that we provide to our Clients at HBA is Principal involvement in every project. This is critical to providing quality documents which can then be confidently put out for bid knowing that the bids will be as complete and accurate as possible.

- Is PACE doing the Communications design?

PACE will provide a layout of typical IT/AV/security equipment (phones, data drops, TVs, WAPs, access control card readers, etc.) and indicate for boxes and conduit to be supplied to each location. An IT room and above ceiling cable tray system connecting to it (if desired) will also be identified in the Municipal Building. The Town's IT and security system vendors will be responsible for any minor design related to relocating or enhancing those systems.

- It seems a mistake to only get a cost estimate at 90% - should have estimate at 60 and 90 so if over budget we can look for savings or options before we get the final product

A 60% level cost estimate has been added to the proposal with a corresponding fee increase of \$8.6K for this task, however the total fee remains the same

- Design schedule is very long - same duration as construction schedule. They should reduce this

The design schedule has been reduced and a proposed timeline added in the Scope document which demonstrates completing the documents in time to have the contractor on board and the Restroom Building construction completed by June 1, 2023. We feel that this is not only more efficient from the design side but will certainly save money to bid all three buildings as one project, rather than splitting out the Restroom Building as a separate bid. The Town will also benefit from attracting more qualified bidders for the Restroom Building by keeping it in the bid package with the Municipal Building and Library.

- Paragraph 9.0 has "Twenty (10) site visits - should be one or the other - appears 20 is correct

This has been corrected. A paragraph was also added to clarify that Tasks 9 and 10 were included in the Scope document to provide an outline of the typical services which HBA provides during the Construction Phase. The construction duration shown is a placeholder until we have a contractor on board to help determine the actual construction duration. It could be longer than

10 months, particularly for the Municipal Building, and will be specified as only 3 months in the bidding documents for the Restroom Building.

- Fee for cost estimator seem high for a single estimate - looks to be around 300 hours at typical estimator rates. Who is providing "soft costs and FF&E?

We feel that the fee for the cost estimator is appropriate, again considering that he is working on three separate buildings. Estimator rates are about \$126/hour. The breakdown by building is attached. Soft costs other than the design fees in this proposal (moving, electric and internet connection fees, etc.) and FF&E costs are by the Town. The plan is to move existing FF&E from the current Municipal Building and Civic Center to the new building. This will be accomplished principally by Public Works and the Town's IT and security system vendors (Inversa Minds and Absolute Security Group). New cabling and some equipment modification will be necessary.

HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES OFFICE SPACE EXPANSION PHASE 2 SCOPE DOCUMENT, REV 1

June 22, 2022

PURPOSE:

Based upon the results of the Phase 1 Study previously performed by HBA, the Town of Cape Charles wishes to satisfy the needs indicated in the study by constructing a new Municipal Building, new Public Restroom Building, and by completing renovations to the portions of the existing Library Building which the Library currently utilizes.

The Municipal Building will be a 2 story, approximately 15,000sf building to be located on Town owned property on Cassatt Parkway. The project will consist of the building and associated site work. The Town will extend public water and sewer to the site.

The Public Restroom Building will be a 1 story, approximately 700sf building located on Town leased property just south of the 200 Block of Mason Avenue. The project will consist of the building and limited site work. Public water and sewer are currently available.

Renovations to the Library Building will consist of:

- Modifying the existing entrance ramp to achieve ADA compliance;
- Reconfiguring the two existing restrooms near the main entrance to achieve ADA compliance;
- Replacement of the electrical and HVAC systems in the Library occupied spaces of the building only; it is understood that future work in the remainder of the building will require separate electrical and HVAC systems.
- Repair to finishes in the Library mezzanine space.

PROPOSED CONSULTANTS:

Civil Engineering:	MSA
Structural Engineering:	Speight, Marshall Francis, PC
PME Engineering:	PACE Collaborative
Geotechnical Engineering:	GET
Cost Estimating:	Osmundson & Associates

SCOPE:

1.0 SCOPING AND PROJECT MANAGEMENT

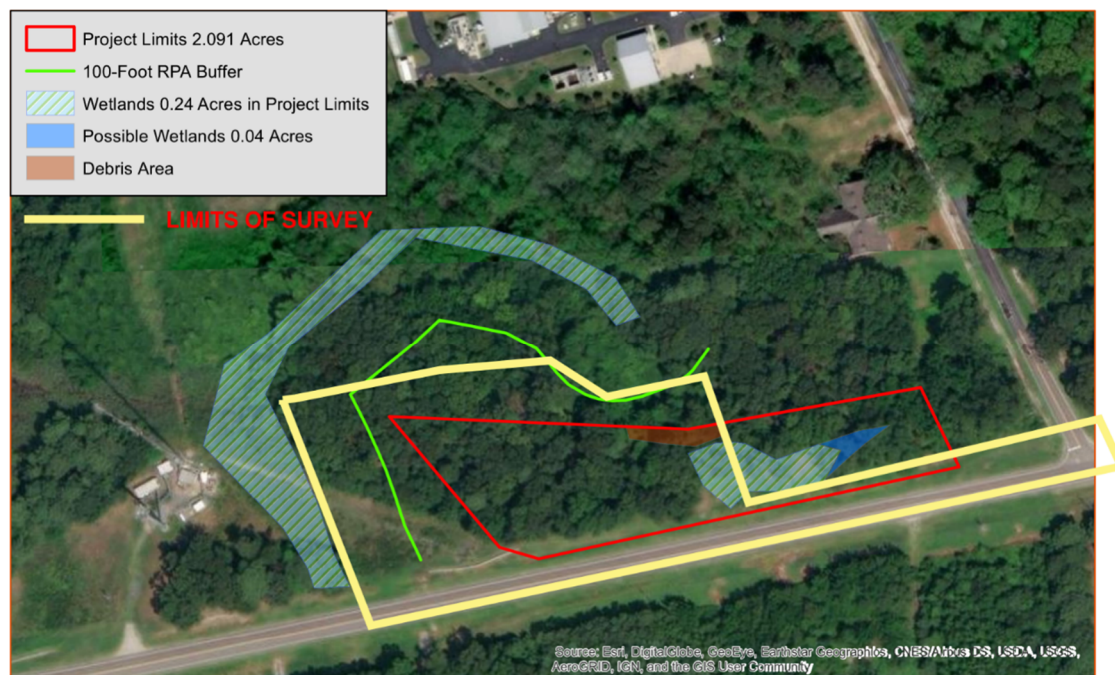
2.0 FIELD VERIFICATION / SCHEMATIC DESIGN

- The ARCHITECT will investigate the site and existing conditions for coordination of the design requirements.
- The ARCHITECT will prepare Schematic Design site plans and floor plans for all three buildings, and exterior building elevations for the Municipal Building and Public Restroom Building, for approval by the OWNER.
- The ARCHITECT will meet with the OWNER to review the Schematic Design documents, gather input and feedback, revise the document. Two revisions to the Schematic Design documents are included.
- The ARCHITECT will prepare final schematic design documents for OWNER approval.

3.0 SURVEY

- The ARCHITECT (and/or his consultant) will prepare a topographic survey of the portion of the subject properties generally shown below:

Municipal Building:



Restroom Building:



4.0 GEOTECHNICAL EXPLORATION

- The ARCHITECT (and/or his consultant) will perform geotechnical exploration within the new building footprint for the Municipal Building and the Public Restroom Building to provide recommendations for foundation design.
- The ARCHITECT (and/or his consultant) will perform geotechnical exploration within the parking areas for the Municipal Building to provide recommendations for pavement design.
- The ARCHITECT (and/or his consultant) will perform geotechnical exploration within the BMP footprints for the Municipal Building and the Public Restroom Building to provide recommendations for BMP design.

5.0 DESIGN DEVELOPMENT DOCUMENTS (60%)

- Preparation of Design Development drawings and specifications for approval by the OWNER. Design Development documents will be based on the approved Schematic Design Documents described herein.
- The Design Development documents consist of drawings and specifications to fix and describe the size and character of the project, including architectural, civil (site) structural, plumbing, mechanical, and electrical systems, materials and other such elements as appropriate.

6.0 CONSTRUCTION DOCUMENTS (100%)

- Preparation of architectural, civil (site), structural, plumbing, mechanical, and electrical construction drawings and specifications (on drawings) for bidding and construction based on the OWNER approved Design Development documents.
- The site plans will be submitted to DSC for their review and comment. Upon the completion of the City's review, the ARCHITECT (and/or his consultant) will address their comments and resubmit the site plans. No more than three (3) submittals to DSC are included.
- The Final Design Documents consist of drawings, specifications setting forth in detail the requirements for bidding and construction of the project.

7.0 COST ESTIMATION

- The ARCHITECT (and/or his consultant) will submit to the OWNER two estimates of the Cost of the Work based on the Construction Documents at 60% and 90% completion for the Municipal Building, Public Restroom Building, and Library Renovations.
- The Cost of the Work shall be the total cost to the Owner to construct all elements of the Project designed or specified by the ARCHITECT (and/or his consultant(s)) and shall include contractors' general conditions costs, overhead and profit. Evaluations of the Owner's budget for the Cost of the Work, the estimate of the Cost of the Work and updated estimates of the Cost of the Work prepared by the Architect (or his consultant), represent the Architect's (or his consultant's) judgment as a design professional. It is recognized, however, that neither the Architect (nor his consultant) nor the Owner has control over the cost of labor, materials, or equipment; the Contractor's methods of determining bid prices; or competitive bidding, market or negotiating conditions. Accordingly, the Architect (or his consultant) cannot and does not warrant or represent that bids or negotiated prices will not vary from the Owner's budget for the Cost of the Work or from any estimate of the Cost of the Work or evaluation prepared or agreed to by the Architect (or his consultant). We will include the costs of all Hard Construction Costs. Soft Cost and FF&E cost to be provided by others. We exclude any HAZMAT abatement cost analysis. We exclude Value Engineering however would be happy to provide an estimate for the service if required.

8.0 Bidding Phase

- During the bidding phase, the ARCHITECT will assist the OWNER in obtaining bids and awarding the contract for construction.
- Bidding assistance consists of attendance at a pre-bid conference, response to questions from bidders and clarification by addendum if necessary.

PROPOSED COMPLETION SCHEDULE

- | | |
|--------------------------------|---|
| • Schematic Design Phase | 45 Days After Notice to Proceed |
| • OWNER Review | 15 Days Estimated for OWNER Review |
| • Design Development Phase | 45 Days After Receipt of OWNER Comments |
| • OWNER Review | 15 Days Estimated for OWNER Review |
| • Construction Documents Phase | 75 Days After Receipt of OWNER Comments |
| • OWNER Review | 15 Days Estimated for OWNER Review |
| • Bidding Phase | 30 Days After Receipt of OWNER Comments |

Total Estimated Work Order Proposed Completion is 240 Days from Notice to Proceed

Assuming a proposed start date of July 1, 2022 for the design phase this would put start of construction on March 1, 2023. To accommodate the OWNER's desire to have the Public Restroom Building open for the Summer 2023 tourist season, the bid form will stipulate that this portion of the project is to be completed in 90 days which would be June 1, 2023, with the remainder of the project at the Library and Municipal Building following after.

CONSTRUCTION PHASE SERVICES

Tasks 9 and 10 below are intended to provide an outline of CA services to be provided by HBA in Phase 3 of the project. The construction duration indicated in Task 9 is a placeholder and will be finalized with the successful bidder for the construction contract.

9.0 Construction Administration Phase

- During the Construction Administration phase, the ARCHITECT will provide to the OWNER the services necessary for administration of the construction contract as set forth in the General Conditions of the contract.
- Construction Administration services will include
 - Processing and review of submittals.
 - Review and certification of the Contractor's monthly application for payment.
 - One (1) visit to the site to facilitate a preconstruction conference with the Contractor.
 - Twenty (20) visits to the site to observe construction to become generally familiar with the progress and quality of the work and to determine in general if the work is proceeding in accordance with the contract documents. This is based on an assumed construction duration of 10 months and two progress meetings per month.
 - One (1) visit to the site for substantial completion and preparation of a punch list.
 - One (1) visit to the site for final completion review.
 - Preparing related reports and communications.
 - Coordination and review of closeout documents from the Contractor.

10.0 SPECIAL INSPECTIONS

- Agent One and Two services will be performed, as required by the statement of special inspections for jurisdictions having authority.

HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES OFFICE SPACE EXPANSION PHASE 2 FEE PROPOSAL, REV 1 June 22, 2022

Task 1 - Scoping and Project Management						TOTAL	\$19,800.00
<u>Architectural</u>				Fee	Total	Markup	TOTAL
PIC	40	hours @	\$255 =	\$10,200.00	\$10,200.00		
Senior Project Architect	0	hours @	\$225 =	\$0.00	\$0.00		
Project Architect	40	hours @	\$195 =	\$7,800.00	\$7,800.00		
Senior Architect	0	hours @	\$175 =	\$0.00	\$0.00		
Senior Project Manager	0	hours @	\$180 =	\$0.00	\$0.00		
Senior Architectural Staff	0	hours @	\$145 =	\$0.00	\$0.00		
Architect Level 3	0	hours @	\$140 =	\$0.00	\$0.00		
Architect Level 2	0	hours @	\$125 =	\$0.00	\$0.00		
Architect Level 1	0	hours @	\$100 =	\$0.00	\$0.00		
Interior Designer	0	hours @	\$100 =	\$0.00	\$0.00		
Architectural Staff Level 3	0	hours @	\$125 =	\$0.00	\$0.00		
Architectural Staff Level 2	0	hours @	\$95 =	\$0.00	\$0.00		
Architectural Staff Level 1	0	hours @	\$80 =	\$0.00	\$0.00		
Interior Design Staff	0	hours @	\$80 =	\$0.00	\$0.00		
Architectural Intern	0	hours @	\$60 =	\$0.00	\$0.00		
Administration	40	hours @	\$45 =	\$1,800.00	\$1,800.00		
				\$19,800.00	\$19,800.00	\$0.00	\$19,800.00

HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES OFFICE SPACE EXPANSION PHASE 2 FEE PROPOSAL, REV 1 June 22, 2022

Task 2 - Field Verification / Schematic Design TOTAL \$76,566.50

<u>Architectural</u>					Fee	Total	Markup	TOTAL
PIC	8	hours @	\$255	=	\$2,040.00	\$2,040.00		
Senior Project Architect	0	hours @	\$225	=	\$0.00	\$0.00		
Project Architect	104	hours @	\$195	=	\$20,280.00	\$20,280.00		
Senior Architect	0	hours @	\$175	=	\$0.00	\$0.00		
Senior Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Senior Architectural Staff	0	hours @	\$145	=	\$0.00	\$0.00		
Architect Level 3	0	hours @	\$140	=	\$0.00	\$0.00		
Architect Level 2	0	hours @	\$125	=	\$0.00	\$0.00		
Architect Level 1	0	hours @	\$100	=	\$0.00	\$0.00		
Interior Designer	0	hours @	\$100	=	\$0.00	\$0.00		
Architectural Staff Level 3	0	hours @	\$125	=	\$0.00	\$0.00		
Architectural Staff Level 2	266	hours @	\$95	=	\$25,270.00	\$25,270.00		
Architectural Staff Level 1	0	hours @	\$80	=	\$0.00	\$0.00		
Interior Design Staff	0	hours @	\$80	=	\$0.00	\$0.00		
Architectural Intern	0	hours @	\$60	=	\$0.00	\$0.00		
Administration	8	hours @	\$45	=	\$360.00	\$360.00		
					\$47,950.00	\$47,950.00	\$0.00	\$47,950.00

<u>Structural</u>					Fee	Total		
Principal Eng	4	hours @	\$175	=	\$700.00	\$700.00		
Staff Eng	19	hours @	\$135	=	\$2,565.00	\$2,565.00		
Prof Construction Admin		hours @	\$125	=	\$0.00	\$0.00		
Special Inspector	0	hours @	\$110	=	\$0.00	\$0.00		
CADD Tech	26	hours @	\$110	=	\$2,860.00	\$2,860.00		
Specification Writer	2	hours @	\$100	=	\$200.00	\$200.00		
Clerical	4	hours @	\$60	=	\$240.00	\$240.00		
					\$6,565.00	\$6,565.00	\$656.50	\$7,221.50

<u>Civil</u>					Fee	Total		
Project Manager	10	hours @	\$160	=	\$1,600.00	\$1,600.00		
Civil Engineer	40	hours @	\$130	=	\$5,200.00	\$5,200.00		
Civil Draftsperson	10	hours @	\$110	=	\$1,100.00	\$1,100.00		
Landscape Arch	0	hours @	\$120	=	\$0.00	\$0.00		
Environmental Scientist	0	hours @	\$120	=	\$0.00	\$0.00		
Survey Project Manager	0	hours @	\$130	=	\$0.00	\$0.00		
Survey Crew	0	hours @	\$130	=	\$0.00	\$0.00		
Survey Tech	0	hours @	\$90	=	\$0.00	\$0.00		
					\$7,900.00	\$7,900.00	\$790.00	\$8,690.00

<u>PME</u>					Fee	Total		
Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Mech Engineer	18	hours @	\$125	=	\$2,250.00	\$2,250.00		
Electrical Engineer	18	hours @	\$125	=	\$2,250.00	\$2,250.00		
Plumb Design	14	hours @	\$125	=	\$1,750.00	\$1,750.00		
Design Tech	0	hours @	\$100	=	\$0.00	\$0.00		
Modeling Tech	56	hours @	\$90	=	\$5,040.00	\$5,040.00		
Drafting Tech	0	hours @	\$80	=	\$0.00	\$0.00		
Clerical	4	hours @	\$65	=	\$260.00	\$260.00		
					\$11,550.00	\$11,550.00	\$1,155.00	\$12,705.00

HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES
OFFICE SPACE EXPANSION
PHASE 2 FEE PROPOSAL, REV 1
June 22, 2022

Task 3 - Survey						TOTAL	\$11,110.00
<u>Architectural</u>						Fee	Total
						Markup	TOTAL
PIC	0	hours @	\$255	=	\$0.00		\$0.00
Senior Project Architect	0	hours @	\$225	=	\$0.00		\$0.00
Project Architect	0	hours @	\$195	=	\$0.00		\$0.00
Senior Architect	0	hours @	\$175	=	\$0.00		\$0.00
Senior Project Manager	0	hours @	\$180	=	\$0.00		\$0.00
Senior Architectural Staff	0	hours @	\$145	=	\$0.00		\$0.00
Architect Level 3	0	hours @	\$140	=	\$0.00		\$0.00
Architect Level 2	0	hours @	\$125	=	\$0.00		\$0.00
Architect Level 1	0	hours @	\$100	=	\$0.00		\$0.00
Interior Designer	0	hours @	\$100	=	\$0.00		\$0.00
Architectural Staff Level 3	0	hours @	\$125	=	\$0.00		\$0.00
Architectural Staff Level 2	0	hours @	\$95	=	\$0.00		\$0.00
Architectural Staff Level 1	0	hours @	\$80	=	\$0.00		\$0.00
Interior Design Staff	0	hours @	\$80	=	\$0.00		\$0.00
Architectural Intern	0	hours @	\$60	=	\$0.00		\$0.00
Administration	0	hours @	\$45	=	\$0.00		\$0.00
					\$0.00	\$0.00	\$0.00
<u>Civil</u>						Fee	
Project Manager	0	hours @	\$160	=	\$0.00		\$0.00
Civil Engineer	0	hours @	\$130	=	\$0.00		\$0.00
Civil Draftsperson	0	hours @	\$110	=	\$0.00		\$0.00
Landscape Arch	0	hours @	\$120	=	\$0.00		\$0.00
Environmental Scientist	0	hours @	\$120	=	\$0.00		\$0.00
Survey Project Manager	2	hours @	\$130	=	\$260.00		\$260.00
Survey Crew	48	hours @	\$130	=	\$6,240.00		\$6,240.00
Survey Tech	40	hours @	\$90	=	\$3,600.00		\$3,600.00
					\$10,100.00	\$10,100.00	\$1,010.00
							\$11,110.00

HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES OFFICE SPACE EXPANSION PHASE 2 FEE PROPOSAL, REV 1 June 22, 2022

Task 4 - Geotechnical Exploration TOTAL \$11,797.50

<u>Architectural</u>					Fee	Total	Markup	TOTAL
PIC	0	hours @	\$255	=	\$0.00	\$0.00		
Senior Project Architect	0	hours @	\$225	=	\$0.00	\$0.00		
Project Architect	0	hours @	\$195	=	\$0.00	\$0.00		
Senior Architect	0	hours @	\$175	=	\$0.00	\$0.00		
Senior Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Senior Architectural Staff	0	hours @	\$145	=	\$0.00	\$0.00		
Architect Level 3	0	hours @	\$140	=	\$0.00	\$0.00		
Architect Level 2	0	hours @	\$125	=	\$0.00	\$0.00		
Architect Level 1	0	hours @	\$100	=	\$0.00	\$0.00		
Interior Designer	0	hours @	\$100	=	\$0.00	\$0.00		
Architectural Staff Level 3	0	hours @	\$125	=	\$0.00	\$0.00		
Architectural Staff Level 2	0	hours @	\$95	=	\$0.00	\$0.00		
Architectural Staff Level 1	0	hours @	\$80	=	\$0.00	\$0.00		
Interior Design Staff	0	hours @	\$80	=	\$0.00	\$0.00		
Architectural Intern	0	hours @	\$60	=	\$0.00	\$0.00		
Administration	0	hours @	\$45	=	\$0.00	\$0.00		
					\$0.00	\$0.00	\$0.00	\$0.00

Geotechnical Consultant

Lump Sum

\$10,725.00

\$0.00	\$10,725.00	\$1,072.50	\$11,797.50
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HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES OFFICE SPACE EXPANSION PHASE 2 FEE PROPOSAL, REV 1 June 22, 2022

Task 5 - Design Development Documents (60%) TOTAL \$115,542.50

<u>Architectural</u>					Fee	Total	Markup	TOTAL
PIC	8	hours @	\$255	=	\$2,040.00	\$2,040.00		
Senior Project Architect	0	hours @	\$225	=	\$0.00	\$0.00		
Project Architect	94	hours @	\$195	=	\$18,330.00	\$18,330.00		
Senior Architect	0	hours @	\$175	=	\$0.00	\$0.00		
Senior Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Senior Architectural Staff	32	hours @	\$145	=	\$4,640.00	\$4,640.00		
Architect Level 3	0	hours @	\$140	=	\$0.00	\$0.00		
Architect Level 2	0	hours @	\$125	=	\$0.00	\$0.00		
Architect Level 1	0	hours @	\$100	=	\$0.00	\$0.00		
Interior Designer	40	hours @	\$100	=	\$4,000.00	\$4,000.00		
Architectural Staff Level 3	0	hours @	\$125	=	\$0.00	\$0.00		
Architectural Staff Level 2	348	hours @	\$95	=	\$33,060.00	\$33,060.00		
Architectural Staff Level 1	0	hours @	\$80	=	\$0.00	\$0.00		
Interior Design Staff	40	hours @	\$80	=	\$3,200.00	\$3,200.00		
Architectural Intern	0	hours @	\$60	=	\$0.00	\$0.00		
Administration	8	hours @	\$45	=	\$360.00	\$360.00		
					\$65,630.00	\$65,630.00	\$0.00	\$65,630.00

<u>Structural</u>					Fee			
Principal Eng	5	hours @	\$175	=	\$875.00	\$875.00		
Staff Eng	26	hours @	\$135	=	\$3,510.00	\$3,510.00		
Prof Construction Admin	0	hours @	\$125	=	\$0.00	\$0.00		
Special Inspector	0	hours @	\$110	=	\$0.00	\$0.00		
CADD Tech	36	hours @	\$110	=	\$3,960.00	\$3,960.00		
Specification Writer	4	hours @	\$100	=	\$400.00	\$400.00		
Clerical	4	hours @	\$60	=	\$240.00	\$240.00		
					\$8,985.00	\$8,985.00	\$898.50	\$9,883.50

<u>Civil</u>					Fee			
Project Manager	10	hours @	\$160	=	\$1,600.00	\$1,600.00		
Civil Engineer	40	hours @	\$130	=	\$5,200.00	\$5,200.00		
Civil Draftsperson	30	hours @	\$110	=	\$3,300.00	\$3,300.00		
Landscape Arch	0	hours @	\$120	=	\$0.00	\$0.00		
Environmental Scientist	0	hours @	\$120	=	\$0.00	\$0.00		
Survey Project Manager	0	hours @	\$130	=	\$0.00	\$0.00		
Survey Crew	0	hours @	\$130	=	\$0.00	\$0.00		
Survey Tech	0	hours @	\$90	=	\$0.00	\$0.00		
					\$10,100.00	\$10,100.00	\$1,010.00	\$11,110.00

<u>PME</u>					Fee			
Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Mech Engineer	36	hours @	\$125	=	\$4,500.00	\$4,500.00		
Electrical Engineer	36	hours @	\$125	=	\$4,500.00	\$4,500.00		
Plumb Design	18	hours @	\$125	=	\$2,250.00	\$2,250.00		
Design Tech	0	hours @	\$100	=	\$0.00	\$0.00		
Modeling Tech	140	hours @	\$90	=	\$12,600.00	\$12,600.00		
Drafting Tech	24	hours @	\$80	=	\$1,920.00	\$1,920.00		
Clerical	8	hours @	\$65	=	\$520.00	\$520.00		
					\$26,290.00	\$26,290.00	\$2,629.00	\$28,919.00

HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES OFFICE SPACE EXPANSION PHASE 2 FEE PROPOSAL, REV 1 June 22, 2022

Task 6 - Construction Documents (100%) TOTAL \$212,351.00

<u>Architectural</u>					Fee	Total	Markup	TOTAL
PIC	32	hours @	\$255	=	\$8,160.00	\$8,160.00		
Senior Project Architect	0	hours @	\$225	=	\$0.00	\$0.00		
Project Architect	134	hours @	\$195	=	\$26,130.00	\$26,130.00		
Senior Architect	0	hours @	\$175	=	\$0.00	\$0.00		
Senior Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Senior Architectural Staff	157	hours @	\$145	=	\$22,765.00	\$22,765.00		
Architect Level 3	0	hours @	\$140	=	\$0.00	\$0.00		
Architect Level 2	0	hours @	\$125	=	\$0.00	\$0.00		
Architect Level 1	0	hours @	\$100	=	\$0.00	\$0.00		
Interior Designer	40	hours @	\$100	=	\$4,000.00	\$4,000.00		
Architectural Staff Level 3	0	hours @	\$125	=	\$0.00	\$0.00		
Architectural Staff Level 2	532	hours @	\$95	=	\$50,540.00	\$50,540.00		
Architectural Staff Level 1	0	hours @	\$80	=	\$0.00	\$0.00		
Interior Design Staff	40	hours @	\$80	=	\$3,200.00	\$3,200.00		
Architectural Intern	0	hours @	\$60	=	\$0.00	\$0.00		
Administration	8	hours @	\$45	=	\$360.00	\$360.00		
					\$115,155.00	\$115,155.00	\$0.00	\$115,155.00

<u>Structural</u>					Fee			
Principal Eng	6	hours @	\$175	=	\$1,050.00	\$1,050.00		
Staff Eng	33	hours @	\$135	=	\$4,455.00	\$4,455.00		
Prof Construction Admin	0	hours @	\$125	=	\$0.00	\$0.00		
Special Inspector	0	hours @	\$110	=	\$0.00	\$0.00		
CADD Tech	42	hours @	\$110	=	\$4,620.00	\$4,620.00		
Specification Writer	4	hours @	\$100	=	\$400.00	\$400.00		
Clerical	6	hours @	\$60	=	\$360.00	\$360.00		
					\$10,885.00	\$10,885.00	\$1,088.50	\$11,973.50

<u>Civil</u>					Fee			
Project Manager	69	hours @	\$160	=	\$11,040.00	\$11,040.00		
Civil Engineer	104	hours @	\$130	=	\$13,520.00	\$13,520.00		
Civil Draftsperson	104	hours @	\$110	=	\$11,440.00	\$11,440.00		
Landscape Arch	30	hours @	\$120	=	\$3,600.00	\$3,600.00		
Environmental Scientist	20	hours @	\$120	=	\$2,400.00	\$2,400.00		
Survey Project Manager	0	hours @	\$130	=	\$0.00	\$0.00		
Survey Crew	0	hours @	\$130	=	\$0.00	\$0.00		
Survey Tech	0	hours @	\$90	=	\$0.00	\$0.00		
					\$42,000.00	\$42,000.00	\$4,200.00	\$46,200.00

<u>PME</u>					Fee			
Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Mech Engineer	54	hours @	\$125	=	\$6,750.00	\$6,750.00		
Electrical Engineer	54	hours @	\$125	=	\$6,750.00	\$6,750.00		
Plumb Design	27	hours @	\$125	=	\$3,375.00	\$3,375.00		
Design Tech	0	hours @	\$100	=	\$0.00	\$0.00		
Modeling Tech	80	hours @	\$90	=	\$7,200.00	\$7,200.00		
Drafting Tech	136	hours @	\$80	=	\$10,880.00	\$10,880.00		
Clerical	8	hours @	\$65	=	\$520.00	\$520.00		
					\$35,475.00	\$35,475.00	\$3,547.50	\$39,022.50

HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES OFFICE SPACE EXPANSION PHASE 2 FEE PROPOSAL, REV 1 June 22, 2022

Task 7- Cost Estimation						TOTAL	\$49,953.80
<u>Architectural</u>				Fee	Total	Markup	TOTAL
PIC	0	hours @	\$255	=	\$0.00	\$0.00	
Senior Project Architect	0	hours @	\$225	=	\$0.00	\$0.00	
Project Architect	24	hours @	\$195	=	\$4,680.00	\$4,680.00	
Senior Architect	0	hours @	\$175	=	\$0.00	\$0.00	
Senior Project Manager	0	hours @	\$180	=	\$0.00	\$0.00	
Senior Architectural Staff	0	hours @	\$145	=	\$0.00	\$0.00	
Architect Level 3	0	hours @	\$140	=	\$0.00	\$0.00	
Architect Level 2	0	hours @	\$125	=	\$0.00	\$0.00	
Architect Level 1	0	hours @	\$100	=	\$0.00	\$0.00	
Interior Designer	0	hours @	\$100	=	\$0.00	\$0.00	
Architectural Staff Level 3	0	hours @	\$125	=	\$0.00	\$0.00	
Architectural Staff Level 2	0	hours @	\$95	=	\$0.00	\$0.00	
Architectural Staff Level 1	0	hours @	\$80	=	\$0.00	\$0.00	
Interior Design Staff	0	hours @	\$80	=	\$0.00	\$0.00	
Architectural Intern	0	hours @	\$60	=	\$0.00	\$0.00	
Administration	0	hours @	\$45	=	\$0.00	\$0.00	
				\$4,680.00	\$4,680.00	\$0.00	\$4,680.00
<u>Cost Estimating Consultant</u>							
Lump Sum					\$41,158.00		
				\$0.00	\$41,158.00	\$4,115.80	\$45,273.80

HBA ARCHITECTURE & INTERIOR DESIGN

TOWN OF CAPE CHARLES OFFICE SPACE EXPANSION PHASE 2 FEE PROPOSAL, REV 1 June 22, 2022

Task 8 - Bidding Phase TOTAL \$9,995.00

<u>Architectural</u>					Fee	Total	Markup	TOTAL
PIC	0	hours @	\$255	=	\$0.00	\$0.00		
Senior Project Architect	0	hours @	\$225	=	\$0.00	\$0.00		
Project Architect	24	hours @	\$195	=	\$4,680.00	\$4,680.00		
Senior Architect	0	hours @	\$175	=	\$0.00	\$0.00		
Senior Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Senior Architectural Staff	0	hours @	\$145	=	\$0.00	\$0.00		
Architect Level 3	0	hours @	\$140	=	\$0.00	\$0.00		
Architect Level 2	0	hours @	\$125	=	\$0.00	\$0.00		
Architect Level 1	0	hours @	\$100	=	\$0.00	\$0.00		
Interior Designer	0	hours @	\$100	=	\$0.00	\$0.00		
Architectural Staff Level 3	0	hours @	\$125	=	\$0.00	\$0.00		
Architectural Staff Level 2	32	hours @	\$95	=	\$3,040.00	\$3,040.00		
Architectural Staff Level 1	0	hours @	\$80	=	\$0.00	\$0.00		
Interior Design Staff	4	hours @	\$80	=	\$320.00	\$320.00		
Architectural Intern	0	hours @	\$60	=	\$0.00	\$0.00		
Administration	8	hours @	\$45	=	\$360.00	\$360.00		
					\$8,400.00	\$8,400.00	\$0.00	\$8,400.00

<u>PME</u>					Fee			
Project Manager	0	hours @	\$180	=	\$0.00	\$0.00		
Mech Engineer	3	hours @	\$125	=	\$375.00	\$375.00		
Electrical Engineer	3	hours @	\$125	=	\$375.00	\$375.00		
Plumb Design	2	hours @	\$125	=	\$250.00	\$250.00		
Design Tech	0	hours @	\$100	=	\$0.00	\$0.00		
Modeling Tech	0	hours @	\$90	=	\$0.00	\$0.00		
Drafting Tech	4	hours @	\$80	=	\$320.00	\$320.00		
Clerical	2	hours @	\$65	=	\$130.00	\$130.00		
					\$1,450.00	\$1,450.00	\$145.00	\$1,595.00

Totals	HBA	\$261,615.00
	Structural	\$29,078.50
	Civil	\$77,110.00
	PME	\$82,241.50
	Cost Estimating Consultant	\$45,273.80
	Geotechnical Consultant	\$11,797.50
		\$507,116.30

Reimbursable Expenses TOTAL \$2,834.00

Fees						\$2,000.00
Estimated Building Permit Fee	1	EA @	\$500.00	x	1.00 =	\$500.00
Estimated Site Plan Review fee	1	EA @	\$1,500.00	x	1.00 =	\$1,500.00
Printing and Reproduction						\$750.00
Estimated printing of drawings (if required for review submissions, 10 sets of drawings at \$75 per set)	10	EA @	\$75.00	x	10.00 =	\$750.00
Local Travel Mileage						\$84.00
Approx. 150 miles at \$0.56/mile	150	@	\$0.56	x	150.00 =	\$84.00
(2 trips to Cape Charles @ 75 miles round trip)						

Note: All reimbursable expenses to be invoiced at actual cost, with no markup, in accordance with the agreement..

TOTAL FEE \$509,950.30

FEE PROPOSAL				June 22, 2022				SCOPE OF SERVICES THIS SHEET:									
Cost Consulting Firm Name:				CONSULTANT TEAM FIRM NAMES				Scope of Services is to provide two cost estimates for the proposed Cape Charles library renovation. Fee proposal based on project scope provided by HBA Architects.									
OSMUNDSON & ASSOCIATES COST CONSULANTS, INC.				ARCH:	0												
				CIVIL:	0												
PROJECT TITLE:																	
VA BEACH ANIMAL CENTER				STRUCT:	0			EST. BUDGET:		\$500,000		SPECIAL NOTES:					
LOCATION:				PME:	0			AVE T.O. HR/DWG		#DIV/0!							
VA BEACH, VA				HTW:	0			FEE AS % OF ECC		2.37%							
					TOWN LIBRARY RENO 60% DESIGN COST ESTIMATE		TOWN LIBRARY RENO 90% PRE-FINAL DESIGN COST ESTIMATE								TOTAL		
		TASK	# Dwg	HOURLY RATE	HRS	COST	HRS	COST	HRS	COST	HRS	COST	HRS	COST	HRS	COST	
		MEETINGS															
		Principal	-	\$59.00	-	-	-	-	-	-	-	-	-	-	-	-	
		Other	-	\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		DRAWING TAKEOFF:															
		Principal		\$59.00	2.00	118.00	2.00	118.00	-	-	-	-	-	-	4.00	236.00	
		Civil	-	\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		Architectural	-	\$47.25	16.00	756.00	8.00	378.00	-	-	-	-	-	-	24.00	1,134.00	
		Structural	-	\$47.25	4.00	189.00	2.00	94.50	-	-	-	-	-	-	-	-	
		Plumb	-	\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		Mech	-	\$47.25	12.00	567.00	8.00	378.00	-	-	-	-	-	-	20.00	945.00	
		Electrical	-	\$47.25	12.00	567.00	8.00	378.00	-	-	-	-	-	-	20.00	945.00	
		Other	-	\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		TOTAL DRAWING TAKEOFF			-		46.00	2,197.00	28.00	1,346.50	-	-	-	-	-	68.00	3,260.00
		ESTIMATE & PRICING:															
		Principal		\$59.00	2.00	118.00	2.00	118.00		-		-		-	4.00	236.00	
		Civil		\$47.25	-	-	-	-		-		-		-	-	-	
		Architectural		\$47.25	4.00	189.00	4.00	189.00	-	-	-	-	-	-	8.00	378.00	
		Structural		\$47.25	2.00	94.50	1.00	47.25	-	-	-	-	-	-	-	-	
		Plumb		\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		Mech		\$47.25	4.00	189.00	4.00	189.00	-	-	-	-	-	-	8.00	378.00	
		Electrical		\$47.25	4.00	189.00	4.00	189.00	-	-	-	-	-	-	8.00	378.00	
		Other		\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		TOTAL ESTIMATE & PRICING					16.00	779.50	15.00	732.25	-	-	-	-	-	28.00	1,370.00
		TOTAL HOURS/DIRECT LABOR					62.00	2,976.50	43.00	2,078.75	-	-	-	-	-	96.00	4,630.00
		TOTAL EST DIRECT LABOR COST					2,976.50		2,078.75		-		-		-		4,630.00
		OVERHEAD RATE X TOT DIRECT LABOR (FY-2021)				133.10%	3,961.72		2,766.82		-		-		-		6,162.53
		SUBTOTAL					6,938.22		4,845.57		-		-		-		10,792.53
		PROFIT X SUBTOTAL				10.00%	693.82		484.56		-		-		-		1,079.25
		TOTAL BURDENED COST OF LABOR					7,632.04		5,330.12		-		-		-		11,871.78
		POV Travel - Milage X Rate			\$0.565	-	-	-	-	-	-	-	-	-	-	-	-
		Rental Car (Dailey Rate Incl Gas)			\$50.000	-	-	-	-	-	-	-	-	-	-	-	-
		Lodging & Incidentals (Rate X #Days)			\$108.000	-	-	-	-	-	-	-	-	-	-	-	-
		Meals (Rate X # Days)			\$64.000	-	-	-	-	-	-	-	-	-	-	-	-
Airfare & Parking Fee			\$500.000	-	-	-	-	-	-	-	-	-	-	-	-		
TOTAL EXPENSES					-		-		-		-		-		-		
TOTAL PROJECT:					7,632.00		5,330.00		-		-		-		12,962.00		

FEE PROPOSAL				June 22, 2022				SCOPE OF SERVICES THIS SHEET:									
Cost Consulting Firm Name:				CONSULTANT TEAM FIRM NAMES				Scope of Services is to provide two cost estimates for the proposed Cape Charles municipal building. Fee proposal based on project scope provided by HBA Architects.									
OSMUNDSON & ASSOCIATES COST CONSULANTS, INC.				ARCH:	0												
				CIVIL:	0												
PROJECT TITLE:																	
VA BEACH ANIMAL CENTER				STRUCT:	0			EST. BUDGET:		\$30,000,000		SPECIAL NOTES:					
LOCATION:				PME:	0			AVE T.O. HR/DWG		#DIV/0!							
VA BEACH, VA				HTW:	0			FEE AS % OF ECC		0.08%							
					MUNICIPAL BLDG 60% DESIGN COST ESTIMATE		MUNICIPAL BLDG 90% PRE-FINAL DESIGN COST ESTIMATE								TOTAL		
		TASK	# Dwg	HOUR RATE	HRS	COST	HRS	COST	HRS	COST	HRS	COST	HRS	COST	HRS	COST	
		MEETINGS															
		Principal		-	\$59.00		-	-	-	-	-	-	-	-	-	-	
		Senior Estimator		-	\$47.25	-	-	-	-	-	-	-	-	-	-	-	
		DRAWING TAKEOFF:															
		Principal			\$59.00	2.00	118.00	2.00	118.00	-	-	-	-	-	4.00	236.00	
		Civil		-	\$47.25	12.00	567.00	12.00	567.00	-	-	-	-	-	24.00	1,134.00	
		Architectural		-	\$47.25	16.00	756.00	12.00	567.00	-	-	-	-	-	28.00	1,323.00	
		Structural		-	\$47.25	4.00	189.00	4.00	189.00	-	-	-	-	-	8.00	378.00	
		Plumb		-	\$47.25	4.00	189.00	8.00	378.00	-	-	-	-	-	12.00	567.00	
		Mech		-	\$47.25	16.00	756.00	16.00	756.00	-	-	-	-	-	32.00	1,512.00	
		Electrical		-	\$47.25	16.00	756.00	16.00	756.00	-	-	-	-	-	32.00	1,512.00	
		Other		-	\$47.25	-	-	-	-	-	-	-	-	-	-	-	
		TOTAL DRAWING TAKEOFF		-		70.00	3,331.00	70.00	3,331.00	-	-	-	-	-	140.00	6,662.00	
		ESTIMATE & PRICING:															
		Principal			\$59.00	2.00	118.00	2.00	118.00	-	-	-	-	-	4.00	236.00	
		Civil			\$47.25	4.00	189.00	4.00	189.00	-	-	-	-	-	8.00	378.00	
		Architectural			\$47.25	4.00	189.00	4.00	189.00	-	-	-	-	-	8.00	378.00	
		Structural			\$47.25	2.00	94.50	2.00	94.50	-	-	-	-	-	4.00	189.00	
		Plumb			\$47.25	2.00	94.50	4.00	189.00	-	-	-	-	-	6.00	283.50	
		Mech			\$47.25	2.00	94.50	8.00	378.00	-	-	-	-	-	10.00	472.50	
		Electrical			\$47.25	2.00	94.50	8.00	378.00	-	-	-	-	-	10.00	472.50	
		Other			\$47.25	-	-	-	-	-	-	-	-	-	-	-	
		TOTAL ESTIMATE & PRICING				18.00	874.00	32.00	1,535.50	-	-	-	-	-	50.00	2,409.50	
		TOTAL HOURS/DIRECT LABOR				88.00	4,205.00	102.00	4,866.50	-	-	-	-	-	190.00	9,071.50	
		TOTAL EST DIRECT LABOR COST					4,205.00		4,866.50		-		-		-		9,071.50
		OVERHEAD RATE X TOT DIRECT LABOR (FY-2021)				133.10%	5,596.86		6,477.31		-		-		12,074.17		
		SUBTOTAL					9,801.86		11,343.81		-		-		21,145.67		
		PROFIT X SUBTOTAL				10.00%	980.19		1,134.38		-		-		2,114.57		
		TOTAL BURDENED COST OF LABOR					10,782.04		12,478.19		-		-		-		23,260.23
		POV Travel - Milage X Rate			\$0.565	-	-	-	-	-	-	-	-	-	-	-	-
		Rental Car (Dailey Rate Incl Gas)			\$50.000	-	-	-	-	-	-	-	-	-	-	-	-
		Lodging & Incidentals (Rate X #Days)			\$108.000	-	-	-	-	-	-	-	-	-	-	-	-
		Meals (Rate X # Days)			\$64.000	-	-	-	-	-	-	-	-	-	-	-	-
		Airfare & Parking Fee			\$500.000	-	-	-	-	-	-	-	-	-	-	-	-
		TOTAL EXPENSES					-		-		-		-		-		-
		TOTAL PROJECT:					10,782.00		12,478.00		-		-		-		23,260.00

FEE PROPOSAL				June 22, 2022				SCOPE OF SERVICES THIS SHEET:									
Cost Consulting Firm Name:				CONSULTANT TEAM FIRM NAMES				Scope of Services is to provide two cost estimates for the proposed Cape Charles restroom building. Fee proposal based on project scope provided by HBA Architects.									
OSMUNDSON & ASSOCIATES COST CONSULANTS, INC.				ARCH:	HBA ARCHITECTS												
				CIVIL:													
PROJECT TITLE:																	
CAPE CHARLES PROJECTS				STRUCT:	0			EST. BUDGET:		\$10,000,000		SPECIAL NOTES:					
LOCATION:				PME:	0			AVE T.O. HR/DWG		#DIV/0!							
CAPE CHARLES, VA				HTW:	0			FEE AS % OF ECC		0.05%							
					RESTROOM BLDG 60% DESIGN COST ESTIMATE		RESTROOM BLDG 90% PRE-FINAL DESIGN COST ESTIMATE								TOTAL		
		TASK	# Dwg	2022 HOUR RATE	HRS	COST	HRS	COST	HRS	COST	HRS	COST	HRS	COST	HRS	COST	
		MEETINGS															
		Principal	-	\$59.00	-	-	-	-	-	-	-	-	-	-	-	-	
		Other	-	\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		DRAWING TAKEOFF:															
		Principal		\$59.00	2.00	118.00	1.00	59.00	-	-	-	-	-	-	3.00	177.00	
		Civil	-	\$47.25	2.00	94.50	2.00	94.50	-	-	-	-	-	-	4.00	189.00	
		Architectural	-	\$47.25	2.00	94.50	2.00	94.50	-	-	-	-	-	-	4.00	189.00	
		Structural	-	\$47.25	2.00	94.50	1.00	47.25	-	-	-	-	-	-	3.00	141.75	
		Plumb	-	\$47.25	2.00	94.50	1.00	47.25	-	-	-	-	-	-	3.00	141.75	
		Mech	-	\$47.25	2.00	94.50	1.00	47.25	-	-	-	-	-	-	3.00	141.75	
		Electrical	-	\$47.25	2.00	94.50	1.00	47.25	-	-	-	-	-	-	3.00	141.75	
		Other	-	\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		TOTAL DRAWING TAKEOFF			-		14.00	685.00	9.00	437.00	-	-	-	-	-	23.00	1,122.00
		ESTIMATE & PRICING:															
		Principal		\$59.00	2.00	118.00	2.00	118.00	-	-	-	-	-	-	4.00	236.00	
		Civil		\$47.25	1.00	47.25	1.00	47.25	-	-	-	-	-	-	2.00	94.50	
		Architectural		\$47.25	1.00	47.25	1.00	47.25	-	-	-	-	-	-	2.00	94.50	
		Structural		\$47.25	1.00	47.25	1.00	47.25	-	-	-	-	-	-	2.00	94.50	
		Plumb		\$47.25	1.00	47.25	1.00	47.25	-	-	-	-	-	-	2.00	94.50	
		Mech		\$47.25	1.00	47.25	1.00	47.25	-	-	-	-	-	-	2.00	94.50	
		Electrical		\$47.25	1.00	47.25	1.00	47.25	-	-	-	-	-	-	2.00	94.50	
		Other		\$47.25	-	-	-	-	-	-	-	-	-	-	-	-	
		TOTAL ESTIMATE & PRICING					8.00	401.50	8.00	401.50	-	-	-	-	-	16.00	803.00
		TOTAL HOURS/DIRECT LABOR					22.00	1,086.50	17.00	838.50	-	-	-	-	-	39.00	1,925.00
		TOTAL EST DIRECT LABOR COST						1,086.50		838.50		-		-			1,925.00
		OVERHEAD RATE X TOT DIRECT LABOR (FY-2021)					133.10%	1,446.13		1,116.04		-		-			2,562.18
		SUBTOTAL						2,532.63		1,954.54		-		-			4,487.18
PROFIT X SUBTOTAL					10.00%	253.26		195.45		-		-			448.72		
TOTAL BURDENED COST OF LABOR						2,785.89		2,150.00		-		-			4,935.89		
POV Travel - Milage X Rate				\$0.565	-	-	-	-	-	-	-	-	-	-	-		
Rental Car (Dailey Rate Incl Gas)				\$50.000	-	-	-	-	-	-	-	-	-	-	-		
Lodging & Incidentals (Rate X #Days)				\$108.000	-	-	-	-	-	-	-	-	-	-	-		
Meals (Rate X # Days)				\$64.000	-	-	-	-	-	-	-	-	-	-	-		
Airfare & Parking Fee				\$500.000	-	-	-	-	-	-	-	-	-	-	-		
TOTAL EXPENSES						-		-		-		-			-		
TOTAL PROJECT:						2,786.00		2,150.00		-		-			4,936.00		

Change Order No.1

This is **Change Order No. 1** to the **Agreement** dated September 17, 2021 between the **Town of Cape Charles** (Owner) and **HBA** (contractor) for **Architectural Services**.

Scope of Work: Revised per HBA Scope Document for Phase 2, REV 1 dated June 22, 2022, attached.

Price. The lump sum price for the work is increased by **\$509,950.10**.

All other provisions of the Agreement and contract documents remain unchanged.

Owner

Contractor

Date

Date



TOWN COUNCIL & PLANNING COMMISSION

Joint Work Session

July 12, 2022

Cape Charles Civic Center

6:30 PM

1. Call to Order – Town Council
 - A. Roll Call
 - B. Establish quorum

2. Call to Order – Planning Commission
 - A. Roll Call
 - B. Establish quorum

3. Discussion Item: Comprehensive Plan Update
 - Existing Conditions Report
 - Draft Goals, Objectives and Strategies

4. Planning Commission Adjournment

5. Town Council Adjournment



TOWN OF CAPE CHARLES

COMPREHENSIVE PLAN

JOINT TOWN COUNCIL AND PLANNING COMMISSION WORKING SESSION

Date: Tuesday, July 12, 2022

Time: 6:30pm

Location: Cape Charles Civic Center

1. Introductions
2. Project Overview
3. Feedback and discussion on Existing Conditions and Goals and Objectives documents
4. Description of plan composition
5. Discussion: Draft Future Land Use Map and category descriptions
6. Discussion: Harbor District and the Comprehensive Plan
7. Discussion: Planned Unit Development and the Comprehensive Plan
8. Deliverables and next steps

A photograph of a beach scene under a clear blue sky. In the foreground, there is a sculpture spelling out the word 'LOVE' in large, stylized letters. The 'L' is blue and made of concrete. The 'O' is a large black tire. The 'V' is made of two red kayaks. The 'E' is a yellow, hollow, three-dimensional structure. The sculpture is on a concrete base. In the background, there is a body of water and some greenery. The title 'Town of Cape Charles Existing Conditions Report' is overlaid in a large, blue, serif font with a white outline. Below the title, the date and report type 'July 12, 2022 | Comprehensive Plan' are written in a smaller, blue, sans-serif font with a white outline.

Town of Cape Charles Existing Conditions Report

July 12, 2022 | Comprehensive Plan

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Introduction

What's an Existing Conditions Report?

The Comprehensive Plan update is based on both empirical data and community visioning. The data that will inform the plan has been collected into this report for review and comment as one of the first steps of the planning process.

Why do we need one?

People tend to have subjective understandings of their own community based on their individual experiences. However, plans rely on data - demographic, economic, geographic, and more, to make sure that everyone who contributes to the making of the plan begins on the same page, and to establish a firm base line from which the Town can plan for the future.

How is this data used?

This data will be made publicly available via the Comprehensive Plan update page on the Town website, and then will become part of the final Comprehensive Plan document.

Where did the data come from?

Most of the data comes from the 2020 American Community Survey, released on March 17th, 2022, by the United States Census Bureau, however this document also utilizes other decennial census counts, Virginia Employment Commission, and Zillow data.



Demographics

- Population
- Age Distribution
- Families
- Racial Composition
- Educational Attainment
- Income
- Poverty
- Conclusions

Demographics

Population

The growth rate of full-time residents in Northampton County has been declining, although this has slowed, while the population of Cape Charles has grown slightly in recent years after past decline. The most recent census estimate states that Cape Charles’ full-time population is now 1,178. Though not measured by the U.S. Census Bureau, the Town has also observed a major increase in part-time residents. Population projections for the Town are not available from major sources of population projections, such as the U.S. Census Bureau, calculate population projections only for cities, counties and states. However, several estimates of growth rates can be used to examine future changes in population. Considering the increase on average using the past five years, one can project using various assumptions as to what the population may look like through 2035 should this recent growth trend continue. Using American Community Survey (ACS) Census data, the town population increased during the last four years at an average of 82 full-time residents each year to Cape Charles. The chart below depicts population projections assuming 25, 50 and 75 new residents per year. Using the scenario assumptions, the Town of Cape Charles could potentially have a full-time residential population of between 1,578 – 2,303 by 2035. Although this growth projection might not ultimately be accurate, this information is important for potential impacts to town services and facilities to meet projected demand from full-time citizens, second home owners, and visitors. The increase in secondary home rentals and tourism in Cape Charles can also be two to three times the normal full-time residential population during the warmer season.

Population			
	2000 Census	2010 Census	2020 Census
Cape Charles	1,121	1,009	1,178
Northampton County	13,093	12,389	12,282
Percentage Change in Population			
		2000 - 2010	2010 - 2020
Cape Charles		-9.9%	+16.7%
Northampton County		-5.4%	-0.9%

Figure 1: Population, Percent Change in Population: 2000, 2010, 2020 Decennial Census

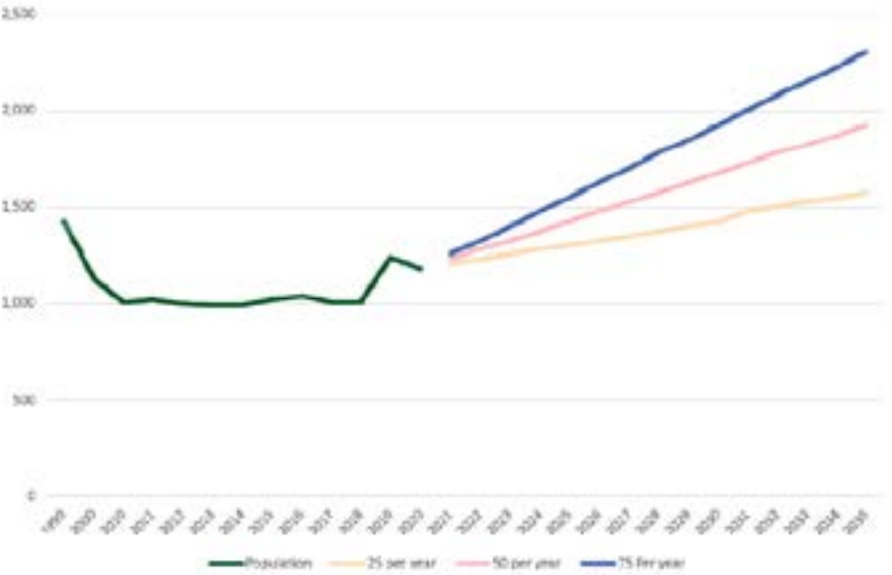


Figure 2: % Population Projection. Source: U.S. Census Bureau

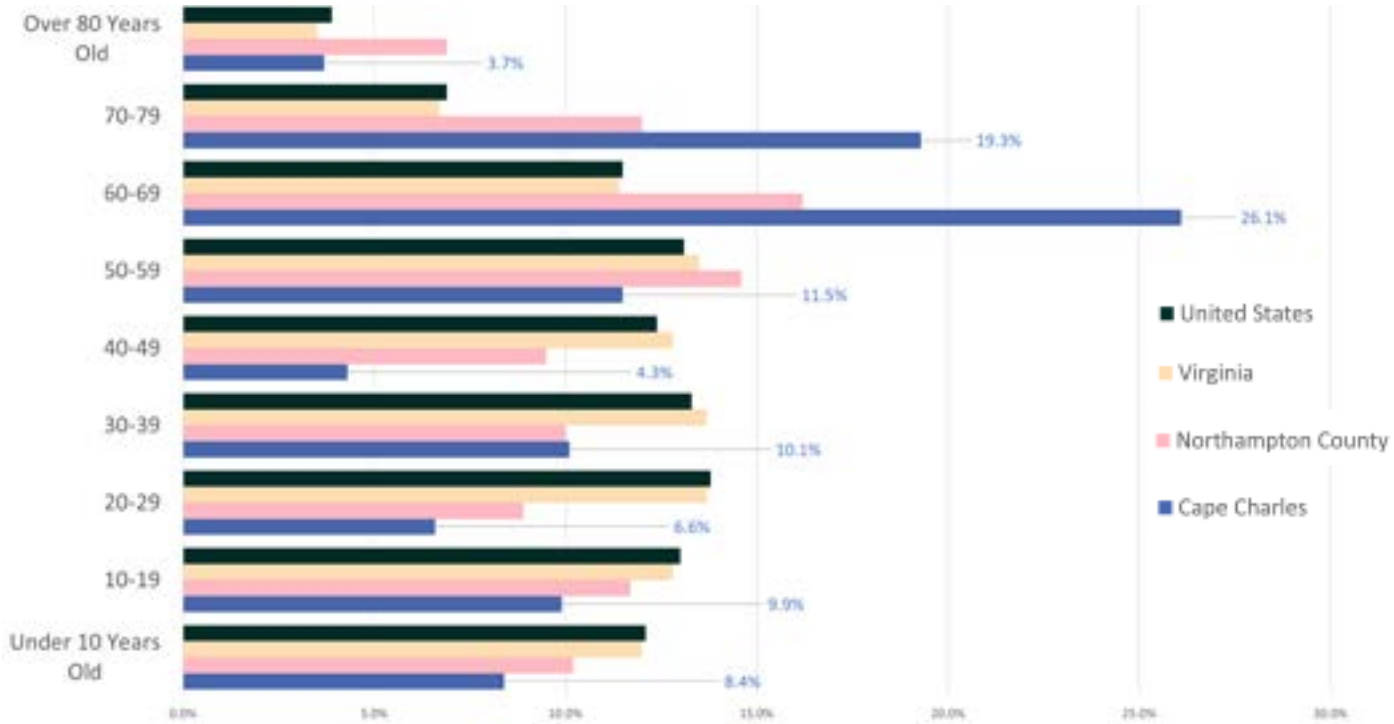


Figure 3: % of Population by Age. Source: 2020 American Community Survey

Age Distribution

The age distribution in both Cape Charles and Northampton County are significantly different than the age distribution of Virginia and the national population. As shown in Figure 3 above, Cape Charles and Northampton County have a high percentage of their populations over 50 years old when compared to Virginia and the United States. Nearly 59% of the population in Cape Charles is 50 or older, while only 29% of Virginia’s population is 50 or older. Conversely, a higher percentage of Virginia is young and of working age. Roughly 17% of the population in both Cape Charles and Northampton County are each in the 20-39 age cohort as compared to 20% of Virginia’s population in this cohort. Disparities in age are further illustrated by median

ages. According to the U.S. Census Bureau, the Median ages in Cape Charles, Northampton, and Virginia are 59.5, 49.8, and 38.4, respectively. The median age in Cape Charles, while higher than that of Northampton County, is approximately 20 years more than the median age at the state level. During the 2010’s, the 55 and older age cohort in Cape Charles increased in size (+9.3%) as the younger age (0-54) cohorts decreased in size by the same percentage (-9.4%). This is partially due to the older retirees moving to the area to take advantage of the Town’s amenities. The town needs to attract younger generations in order to provide a complete social structure that can sustain itself into the future.

	Cape Charles 2010	Cape Charles 2020	Cape Charles Percent Change 2010-2020	Northampton County 2020	Virginia 2020
Generation Z (0-19)	17.9%	18.3%	+0.4%	21.9%	24.8%
Millenials (20-34)	14.7%	12.3%	-2.4%	14.3%	20.6%
Generation X (35-54)	19.8%	12.4%	-7.4%	19.9%	26.3%
Baby Boomers (55-74)	35.8%	48.5%	+12.7%	32.5%	22.2%
Silent Generation (74+)	11.8%	8.4%	-3.4%	11.4%	6.2%
Median Age (Years)	53.5	59.5		49.8	38.5

Figure 4: % Population by Generation 2010 U.S. Census, 2020 American Community Survey

Families

The number of families living in Cape Charles has grown in recent years according to the U.S. American Community Survey 5-year Estimate data. The Bureau defines a family as “a group of two or more people who reside together and who are related by birth, marriage, or adoption.” The number of families in Cape Charles has increased by 41.5% over the past six years. The average family size has remained relatively steady around 2.5 from 2015 to 2020. The number of families with children under 18 has ranged between 60 and 77 from the ACS survey years 2015 to 2020 without depicting a trend. As stated under Age Distribution above, the town needs to attract younger families.

Racial Composition

The racial composition of Cape Charles did not change significantly during the 1990’s. Census data from 2000 indicates that approximately 43% of the population is black or African American. This however has changed significantly as the white population has increased. The 2010 Census data indicates that this number decreased to 31.1% while the 2020 ACS survey data depicts 16%, with the white population increasing accordingly. This is a considerable shift over the past two decades. While the black and African American population may have been decreasing, a larger percentage of new residents moving into Cape Charles are white. One of the potential factors for this change is the significant increase in housing purchase prices and renovation costs leading to a decrease in lower income earning individuals or families that can afford to live in Cape Charles while also attracting a larger influx of affluent white retirees. Figure 6 provides the racial composition change over the past decades.

	2015	2016	2017	2018	2019	2020
Total Families	217	253	292	309	319	307
Married-Couple Family	166	191	214	238	230	234
Male Householder, no spouse/partner, family	25	28	19	55	34	21
Female householder, no spouse/partner, family	26	34	59	46	55	52
Average Family Size	2.59	2.46	2.55	2.56	2.55	2.63

Figure 5: Families, 2020 American Community Survey

	1980	1990	2000	2010	2020
White	67%	54.4%	53.8%	60.4%	77.6%
Black or African American	32%	45%	42.9%	31.1%	16%
Other	1%	0.6%	3.4%	8.5%	6.4%

Figure 6: % by Race 2020 American Community

Educational Attainment

The population of Cape Charles features higher educational attainment in comparison to surrounding County. 50.1% of the population 25 and older in Cape Charles have achieved a Bachelor’s degree or higher as compared to 39.5% in Virginia and 26.1% in Northampton County (2020 ACS).

Income

Cape Charles’ median household income of \$55,104 for full-time residents is higher than Northampton County (\$50,819). The figure below depicts income distribution within 658 households in Cape Charles Although the median income level within Cape Charles can be considered high, around 21% of those households in Cape Charles have incomes below \$24,999.

Poverty

The Census Bureau uses a set of income thresholds that vary by family size and composition to determine who classifies as impoverished. If a family’s total income is less than the family’s threshold, then that family and every individual in it is considered to be living in poverty. 16% of the population for whom poverty status is determined in Cape Charles live below the poverty line, a number that is the same as Northampton County at 16.5% and higher than the state average of 10%. (2020 ACS 5-year Estimate). By further dissecting the 21.1% population in Cape Charles considered to be living in poverty status and assessing the age of these individuals, Figure 8 shows that over 40% of this population in poverty is under 18 years of age.

Accomack County and Northampton County have comparable overall poverty rates, around 6% higher than the rest of Virginia. Poverty is a complex and persistent problem that requires coordinated efforts across the Eastern Shore to improve housing, jobs, education, health care, and transportation options. The Town of Cape Charles does provide assistance in the form of real estate tax credits to qualified persons who are elderly or who are physically disabled (Town Code Section 66-118). Applicants must meet certain income (e.g., maximum combined income, if married, cannot exceed \$25,000) and health status substantiations.

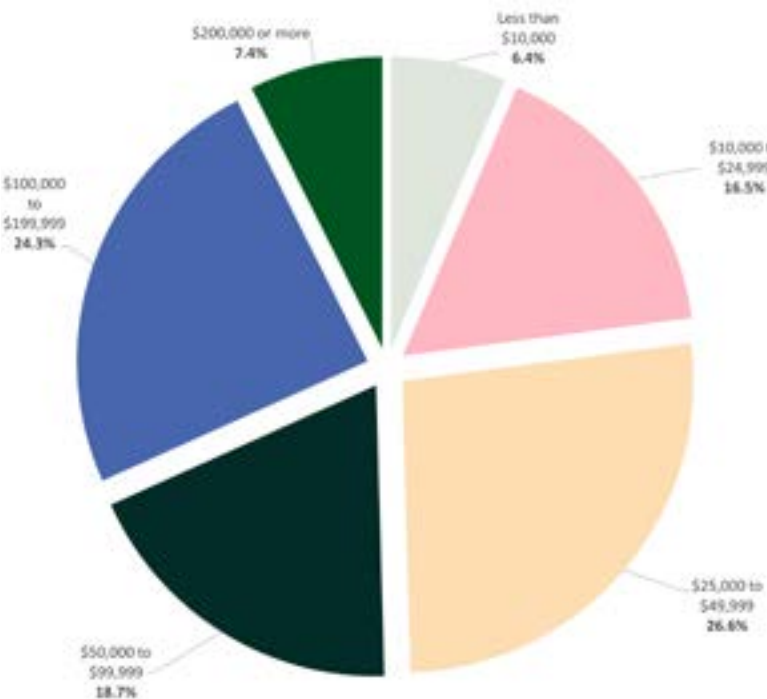


Figure 7: Families 2020 American Community Survey

Population Total Estimate	1227*
Population below Poverty Level	196
Percentage of Population below poverty level	16%
Poverty by Age in Cape Charles	
Under 18 years	44.4%
18 to 64 years	40.3%
65 years and over	15.3%

Figure 8: % of Population in Poverty and by Age 2020 American Community Survey

*Population estimate varies slightly between 2020 ACS and 2020 Census



Housing

- Overview
- Housing Inventory
- Housing Projections
- Accessory Dwelling Units
- Tenure
- Age of Housing
- Housing Conditions
- Housing Value
- Housing Market Conditions
- Rentals
- Historic Resources
- Affordable Housing
- Workforce Housing
- Conclusion

Housing



A house in the Historic District.



Home under construction in Bay Creek.

Overview

The housing stock in Cape Charles is clustered in three main areas. The traditional residential area is located in the Town’s Historic District. Two other major clusters of housing are present in the north and south tracts of Bay Creek, where construction of several residential subdivisions continue. Housing in the Historic District of Cape Charles consists of approximately 750 dwelling units, many of which are single-family houses built between 1885 and 1920. The houses range from small bungalows to larger homes and are grouped into neighborhoods which blend together but maintain distinctive character. There are many excellent examples of Victorian, Colonial Revival, Craftsman, and Neoclassical styles of homes in the Historic District. The oldest houses, dating from the 1880s to the early 1900s are found in the center and eastern sections of the Historic District. The Town’s Historic District Review Board reviews all construction in the Historic District to ensure construction of new buildings and alterations to existing buildings do not adversely affect the historic character of the area. The Town was originally laid out in a grid of 40 foot wide by 140 foot long lots with houses spaced close together. A limited number of vacant lots exist in the Historic District. In more recent years, significant residential construction has occurred in Bay Creek. The development’s north and south tracts span approximately 1,750 acres and will continue to bring a large number of new housing units to the area. Although the actual number of homes constructed will be driven by market forces, the Annexation Agreement of 1992 allows up to 3,000 dwelling units to be built in Bay Creek. Bay Creek has ten distinct neighborhood villages, including condominiums, townhouses, and single-family homes. Most of the homes already built in Bay Creek, a gated-community, are marketed towards high income households, retirees, and seasonal home owners. Single-family homes represent most of the housing market in the Town of Cape Charles. The town’s housing stock has undergone major changes in a short period of time. Numerous single-family homes in the Historic District have been renovated and that trend continues. New residential construction has also taken place in the Bay Creek golf and marina resort communities. The town has a large percentage of homes that are used as second homes, some of which are used as short-term rental units due to the high influx of tourists during the summer season. The U.S. Census categorizes ‘vacant’ to include houses for sale, houses

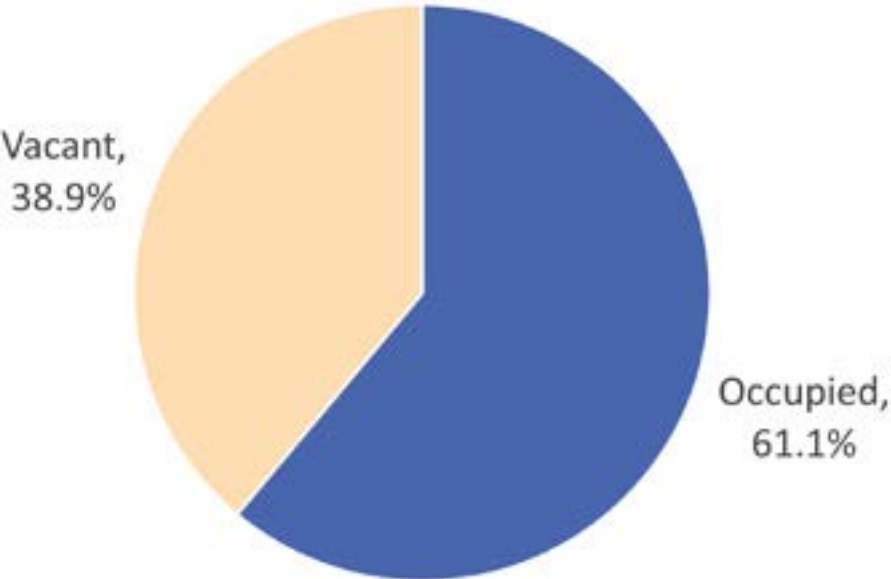


Figure 9: Housing Unit Occupied vs. Vacancies 2020 American community Survey

for rent, seasonal/recreational and other. Based on the 2010 census, at least 30% of the entire housing stock was seasonal/recreational. It is expected that this percentage number would be equal, if not higher, at the present. Despite the positive changes in the town’s housing stock, some residents face major housing issues. Although rising property values have benefited many homeowners, increased rents and housing prices create difficulties for low and moderate income households. If current trend continues as expected, availability of quality housing will continue to decrease. An analysis of the town’s census data shows that 41% of town households are cost burdened (i.e., households that pay more than 30% of their income for all of their housing expenses including utilities). For example, a household that had a \$30,000 income would be cost burdened if it paid more than an average of \$750 per month on their rent or mortgage, property taxes, property insurance, utilities and housing maintenance costs. The town needs to be concerned with planning for quality affordable housing as its economy grows. It is necessary to reduce the percentage of cost burdened households, one way of which is providing more affordable housing stock, since this will help encourage people to live in stable neighborhoods in town instead of moving out into the unincorporated

areas of the county. This in turn will help keep the town economically viable throughout the year. As described in the chapter on Cape Charles demographics, with the baby boomer (age 55-74) population increasing 35.8% to 48.5% of the total permanent population from 2010 – 2020, the Gen X (ages 35-54) decreasing from 19.8% to 12.4% and Millennials (ages 18-34) decreasing from 14.7% to 12.3%, the town’s mix is moving towards an age disparity. Coupled with lower income buyers not able to compete for the housing within increasingly expensive neighborhoods in Cape Charles, they are then forced to move to affordable neighborhoods elsewhere that they can afford. The increased housing costs within the town make it difficult to attract younger families. Cape Charles has a need for a greater diversity of housing types to improve affordability as well as support a stable and resilient community into the future.

Housing Inventory

Housing patterns in Cape Charles are typical of small towns that developed around railroad lines in the early twentieth century. Most of the Town’s older housing stock in the Historic District is located near the downtown commercial areas, which are centered along the previous railroad lines and harbor terminus. The inclusion of the Bay Creek golf and marina communities offer newer housing stock.

Nearly 78% of occupied homes in Cape Charles are single family units (66% single family detached, 11.4% attached). With the completion of new construction and rehabilitated buildings on Mason Avenue, more attached condominium units have been entering the housing stock.

Housing Projections

A rough housing projection was developed to determine the impact on housing for continued growth. Population projections typically are constructed around full-time residents and prepared for larger localities than Cape Charles. Given Cape Charles’ smaller population numbers and the mixture of permanent residents and seasonal/ recreational occupants, forecasting housing needs contains many assumptions. Assuming an annual population projection increase of 1.7% (using 2010 to 2020 population growth numbers), an additional 200 full-time residents could live in the Town of Cape Charles by 2030. Given the current average household size of 2, another 100 dwelling units would be required to house this full-time population increase. However, one must also account for additional seasonal housing or the conversion of current housing stock into seasonal units. Using a ratio of one ‘vacant’ house to every two full-time residential homes would result in a total of 160 additional units projected for 2030. (Per U.S. Census terminology, ‘vacant’ homes are primarily seasonal/ recreational in the case of Cape Charles.)

Although the Town of Cape Charles is enclosed on three sides by water, the Town would still have capacity to accommodate these additional homes within areas such as the remaining lots in the historic district, properties within the Bay Creek communities, future developable town owned property along Old Cape Charles Road (former Keck property, 18 acres), approximately 20 acres of developer’s property along Old Cape Charles Road, and the potential development of the railroad property (approximately 40 acres) between the historic district and the harbor.

2010 Census			2020 American Community Survey	
Total Units	787	-	1,077	-
1-unit, detached	612	77.8%	715	66.4%
1-unit, attached	35	4.4%	123	11.4%
2 units	24	3%	52	4.8%
3 or 4 units	32	4.1%	19	1.8%
5 to 9 units	29	3.7%	121	11.2%
10 to 19 units	25	3.2%	35	3.2%
20 or more units	16	2%	12	1.1%
Mobile home	14	1.8%	0	0%

Figure 10: Housing Inventory 2020 American Community Survey, 2010 Census

Accessory Dwelling Units

The Town of Cape Charles adopted ordinances in February 2019 that permitted accessory dwelling units under certain conditions with adequate safeguards to protect the character of the existing residential neighborhoods. This strategy is intended to develop new, moderate cost rental housing while preserving large, older homes and allow more flexibility for elderly homeowners to stay in their homes. Among the conditions of approval for accessory apartments is that the accessory dwelling unit be “clearly subordinate to” the main unit. This is achieved by requiring that the unit be less than a specified percentage of the square footage of the original house. In addition, these units cannot be rented for less than 30-day length of stays in order to foster longer term residencies (as opposed to summer tourist related weekly rentals). The number of permits issued to build accessory dwelling units from February 2019 through April 2022 totals sixteen that demonstrates an interest in residents to provide additional in-fill housing units within the town.

Tenure

61% of the housing stock in Cape Charles is either fulltime owner-occupied (32%) or long-term renter-occupied (29.1%). According to the 2020 American Community Survey, there were approximately 658 full-time occupied housing units in Cape Charles. The higher full-time rental-occupancy number is due to the rental units of Sea Breeze, Myrtle Landing, and Cape Charles Lofts, approximately 138 units total. This is in addition to other downtown loft apartments, and single-family home full-time rentals. However, there are an additional 419 housing units that are classified as ‘vacant’ units per census statistics, those either offered for rent, rented or sold but not yet occupied, and those for seasonal, recreational or occasional use. Cape Charles has a high number of units within the seasonal, recreational or occasional use category because of the desirability of the town as a tourism destination and short-term get-away. As shown in the decennial census and ACS survey numbers, seasonal and short-term rentals have increased in numbers.

	1990		2000		2010		2020	
Owner Occupied - Full-time	299	43.4%	253	34.3%	247	25.8%	345	32%
Renter Occupied - Full-time	268	38.9%	281	38.1%	269	28.1%	313	29.1%
Vacant	122	17.7%	204	27.6%	442	46.1%	419	38.9%
a. For rent	31	4.5%	22	3%	50	5.2%	-	-
b. For sale	11	1.6%	9	1.2%	40	4.2%	-	-
c. Seasonal	7	1%	82	11.1%	290	30.3%	-	-
d. Other	73	10.6%	91	12.3%	62	6.5%	-	-
Total	689	-	738	-	958	-	1,077	-

Figure 11: Housing Occupancy by Tenure, U.S. Census 1990, 2000, 2010, 2020 ACS

Age of Housing

Cape Charles has a mixture of older and new housing. Given the town’s history as a turn-of-the century railroad town, many homes in the Historic District were built before 1939. The decade between 2000 and 2010 saw a tremendous amount of growth as the Bay Creek properties developed. In fact, one-third of all housing in Cape Charles was constructed since the Year 2000.

In addition to renovation of older homes within the Historic District, new housing unit construction has continued at a healthy pace. In the year 2019, permits were issued for new residential construction as follows:

- 22 new single-family residential (10 in historic district and 12 in Bay Creek)
- 8 new residential units over commercial property on Mason Avenue
- 4 new residential units in multi-family building
- 4 new apartments on Randolph Avenue

In the year 2020, 25 permits were issued for new residential construction, and in the year 2021, 60 permits were issued for new residential construction.

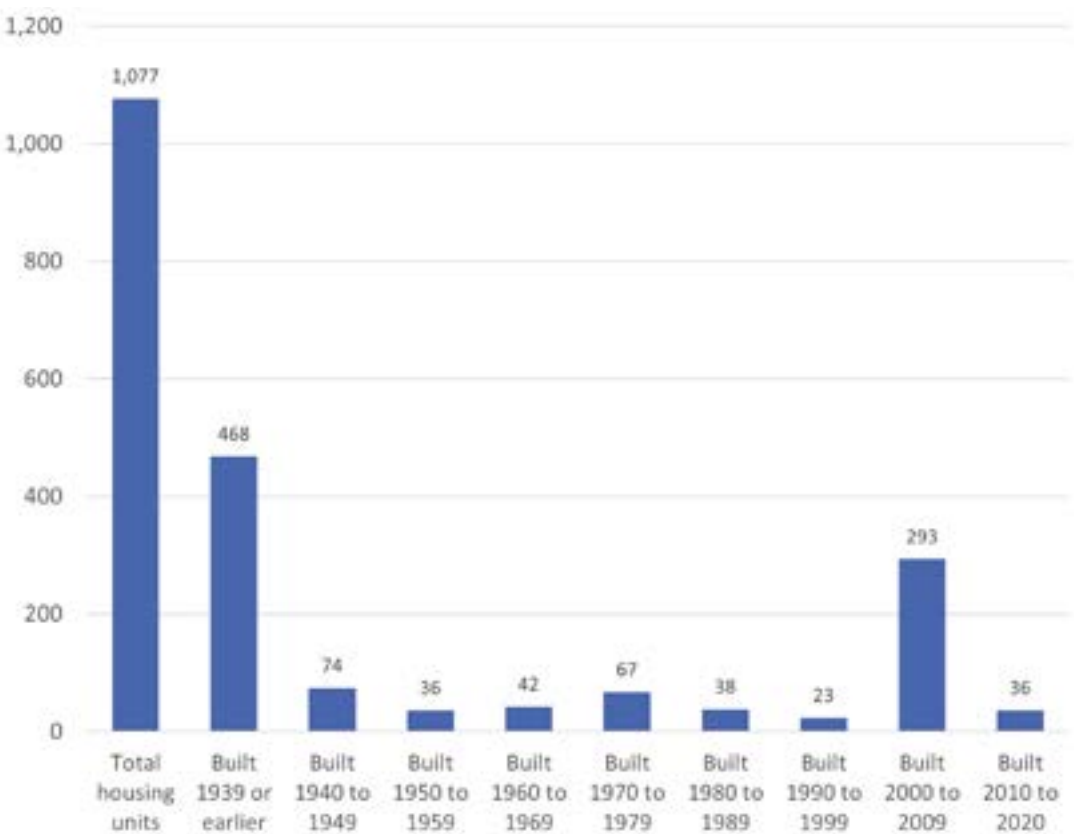


Figure 12: Year Structure Built, 2020 American Community Survey

Housing Conditions

The need to improve housing conditions in parts of Cape Charles has been a major issue in past decades and continues today to a much lesser degree. Dilapidated, abandoned, and substandard housing is of concern to all citizens. Issues in the past had included problems with sagging roofs, missing siding, hazardous entryways, missing windows, deteriorating appearance, and unkempt yards and outbuildings. In 1995, the Town was awarded Community Development Block Grant funding for rehabilitation of 30 substandard houses located in the northeast area of the historic district. The rehabilitation project, known as the Northeast Neighborhood Comprehensive Community Development Project, helped many of the Town’s residents improve their housing conditions. Building permit information indicates that a significant amount of renovation

work for existing homes in the Historic District has occurred since the early 2000’s. To help improve housing conditions, the Town also adopted an ordinance to enforce the repair or clearance of dilapidated structures. All existing buildings and structures must be properly maintained to protect the occupants form health and safety hazards that might arise from improper maintenance or use of the building. As noted in the Cape Charles Historic District National Register, between surveys conducted in 1987 and 2017, over 50 homes listed in the original register were demolished. Some have since been replaced. From 2016 through 2019, eight permits were issued to demolish additional residential homes and structures such as accessory buildings and warehouse within the historic district. In 2021 there were no demolition permits issued.



House Renovation in Cape Charles Historic District, Google Streetview

Housing Value

The Town of Cape Charles has the highest owner-occupied median housing unit value in the entire region at \$366,200 (2020). 20% of all owner-occupied housing is valued about half a million dollars or more. Only 10% is valued below \$200,000.

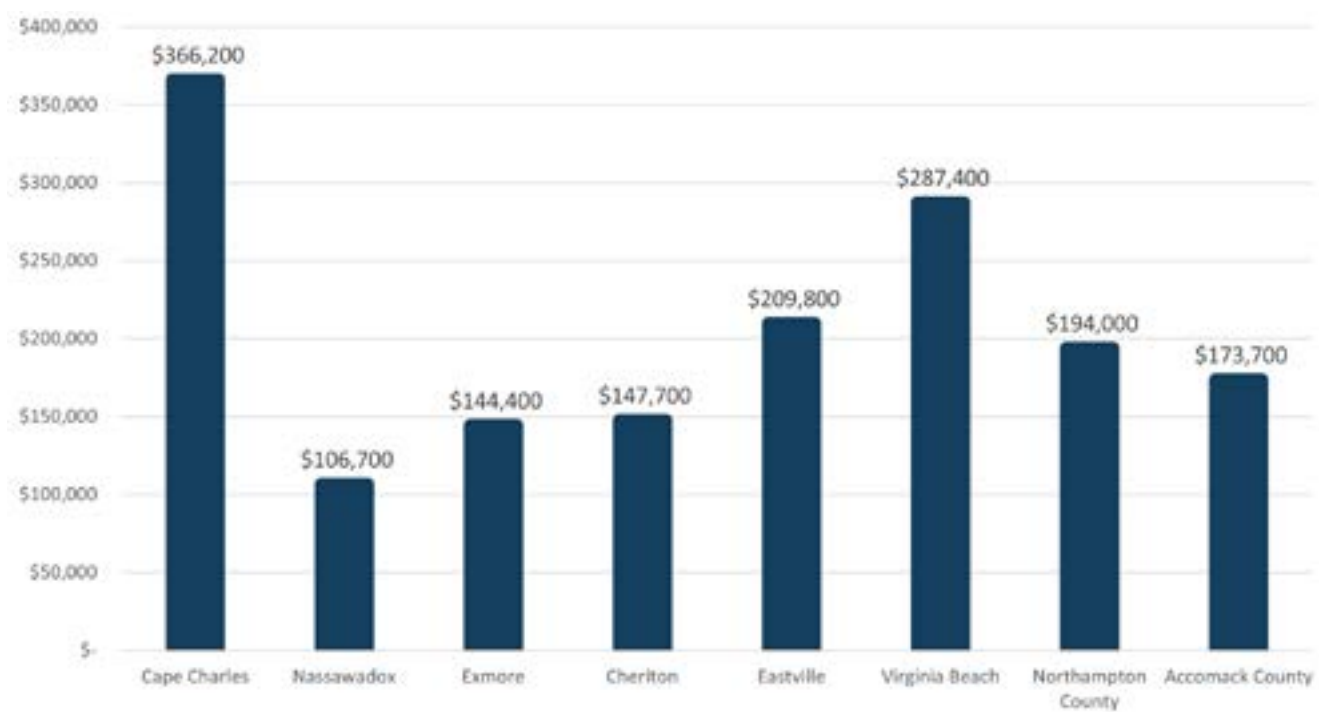


Figure 13: Regional Comparison of Median Value of Owner Occupied Units, 2020 American Community Survey

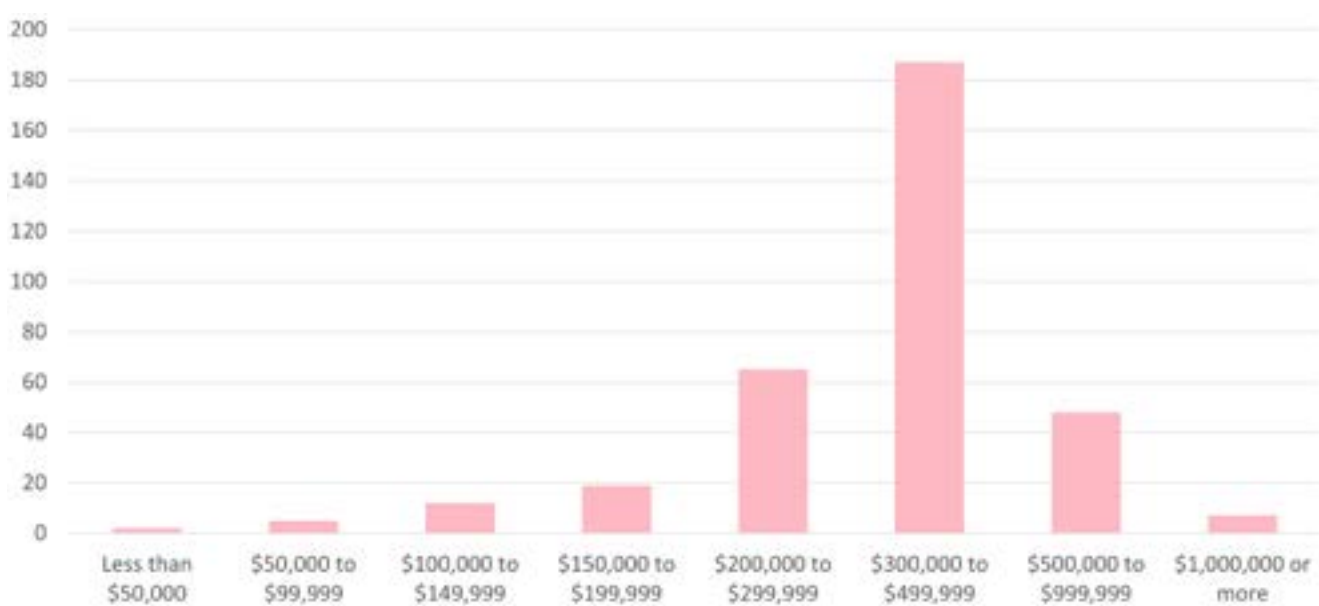


Figure 14: Price of Owner-occupied Units, 2020 American Community Survey

Housing Market Conditions

Median list prices in Cape Charles have been steadily increasing over the past six years, from \$274,408 in 2013 to \$362,670 in 2021 (through October).

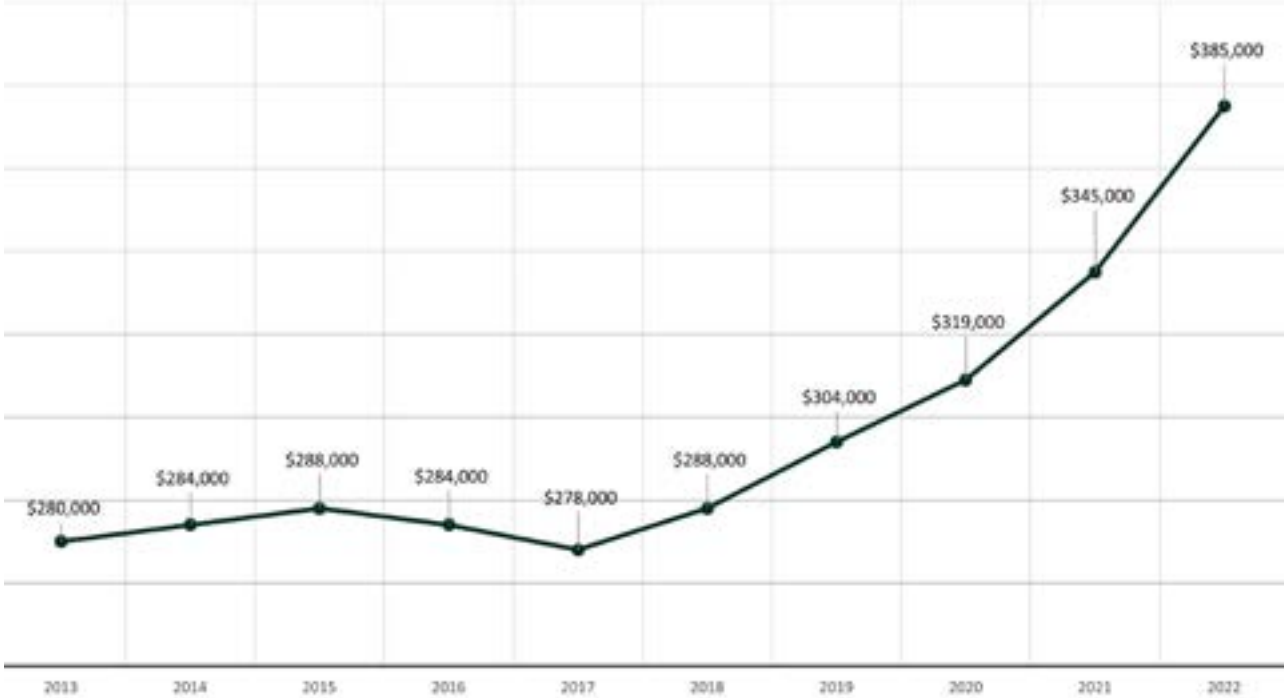


Figure 15: Annual Median Listing Value, Zillow

Rentals

The median estimated market rate rent across Cape Charles in 2020 is \$630 monthly. This includes all types of housing available for rent (multi-family, single family residences, condos and co-ops). (2020 ACS) Two of the main reasons for introducing accessory dwelling units into Cape Charles were to increase the number of smaller units available for long-term rental and a lower rental cost based on these units being smaller in size (typically studios or one bedrooms). Those housing units that are categorized as seasonal or recreational and available on a short-term basis can drive rental prices much higher as a result of the current high demand for short-term rentals during the summer tourist season.

Historic Resources

The Code of Virginia provides local governments with a number of tools that support the preservation of historic sites and structures. Included among them are the ability to designate historic districts and the authority to adopt local ordinances that govern the treatment of historic resources. The Town of Cape Charles is a Certified Local Government and has a designated historic district overseen by a historic district review board. The homes designated as ‘historic’ are currently listed on the National Register of Historic Places.

Affordable Housing

As a visitor destination with a large amount of second homeowners, the dynamics of the housing market in Cape Charles are impacting the overall affordability of housing. Increased housing prices throughout Cape Charles have exacerbated an already existing lack of affordable housing. Cape Charles does have two income-based apartment complexes within the town:

- Washington Ave, Seabreeze Apartments - 28 units, family living; and
- Randolph Ave, Myrtle Landing apartments – 93 units, senior living.

Housing costs can still be a burden for some households, including an increasing proportion of older adults. In 2020, nearly 16% of Cape Charles’ population was estimated to be below the poverty line. The income-based apartment complexes noted above contribute in this high percentage number. Low-income households must pay a large portion of their income for housing. Generally, households are advised to spend less than 30% of their total income on housing costs (mortgages or rent plus utilities). However, 28.2% of full-time renter payers in Cape Charles spend greater than 30% of their income on housing. Homeowners in town can also be affected by high housing costs resulting in 28.9% of homeowners with mortgages and 18.6% of homeowners without mortgages also spending greater than 30% of their income on housing. (2020 ACS) When people with higher income start purchasing and renovating buildings in an area, one concern is gentrification. Although this increases the economic value of a neighborhood, the negative effect is the displacement of lower income residents due to the increased cost of rent, higher cost of housing, or increased property tax values. Lower income buyers thus cannot compete for the housing within gentrifying neighborhoods and are then forced to seek other neighborhoods that they can afford, which may be far outside the community. In many instances, the cultural value of the displaced residents’ neighborhood could end up disappearing if the low to-moderate income buyers are not given opportunities to stay where they currently reside. With Cape Charles having the highest owner-occupied median housing value in the region, the town has a need for a greater variety of housing types that are affordable. A diversity of housing types,

including small and attached units, is one way to provide greater housing options to those who seek more affordable housing.

Workforce Housing Units

In recent years, rising housing prices have made it impossible for much of the workforce to live within the town’s boundaries. This is a group of workers defined as earning between 80% and 120% of the Area Median Income (\$55,104 for Cape Charles). Cost burdened households are defined as those paying more than 30% of one’s income on all housing expenses, such as rent, utilities, or maintenance. Studies and surveys conducted by Cape Charles’ Main Street organization indicate that there is a shortage of workers to support the needs of downtown merchants. Lack of affordable housing is a contributing factor in this shortage. This problem is also occurring at the broader Northampton County level, as well as much of the United States. Similar to the discussion above on affordable housing, a greater diversity of housing types, including small and attached units, is one way to provide greater housing options to those who seek more affordable housing.

Area Median Income (AMI)	80% of AMI	120% of AMI
\$55,104	\$44,083.20	\$66,124.80





Economy

- Overview
- Labor Force Participation Rate
- Unemployment Rate
- Median Household Income
- Employment by Industry
- Major Employers
- Location of Employers

Economy



Cape Charles Beach “Love” Sign

Overview

Cape Charles is home to a lively economy built around accommodations, food service, health care, social services, education services, retail trade, public administration, manufacturing and transportation (2018 Cape Charles Market Study). Over the last six years, the businesses of Cape Charles have seen progressively better numbers as a rule. In March of 2020, the world economy was shocked by the Covid-19 pandemic. However, the summer and shoulder seasons town revenues, while not as robust as projected, were better than last year. Although considered a relatively safe haven, restrictions to limit the spread of Covid-19 created a difficult environment for businesses to navigate. According to Cape Charles Main Street, B&B’s were incredibly busy because Cape Charles became a landing spot for a lot of people who own homes here that usually are renting them out all summer. As people moved back into their usually rented units when the first surges of the pandemic hit, this left people looking for places to stay. The Northampton Hotel shut its doors for the entire season, making the search for available rooms more difficult. Restaurants had a harder time. With their number of seats reduced for the beginning of the season, they had to pivot to take out and then to outdoor dining with social distancing in place which limited the seating for many restaurants. Retail appears to have fared better, however, Cape Charles Main Street has not had any conversations with these businesses in particular, but the summer was reportedly decent. This information is balanced with the fact that businesses had just ordered their seasons stock, then were closed which left them with large amounts of inventory and no ability to sell it. This put many behind on projected sales and a strong summer was needed to simply get back to even before entering the off season. Personal service establishments had an exceedingly difficult time, businesses such as hair stylists, nail salons, masseuses, and others. Many of those that lease spaces have had rent increases over the summer season, which made it even more difficult to make ends meet. Fortunately, all homes, B&B’s, and hotels were full, which kept the few seats full and restaurant take-out busy which kept them afloat. The total impact of Covid-19 will not be fully known until the data is collected and analyzed. There are active data stores available on-line which will quantify the question, but they are updated on a fixed schedule and those schedules must play out before the actual numbers are available.

Labor Force Participation Rate

The Labor Force Participation Rate (LFPR) is the percentage of all people of working age who are either working or actively seeking work (Employed + Unemployed). The American Community Survey estimates the Town’s LFPR at 48.7% for 2020. This is lower than the United States average of 63.4%.

In January 2020, COVID caused a decline in the reported rates across the country due to economic uncertainty. Rates have since started to climb back towards pre-pandemic levels. The chart below shows labor force participation rate by % of that age cohort’s population in Town. These rates incorporate the 16 to 19 years and those 65 and older, which bring down the average participation rate.

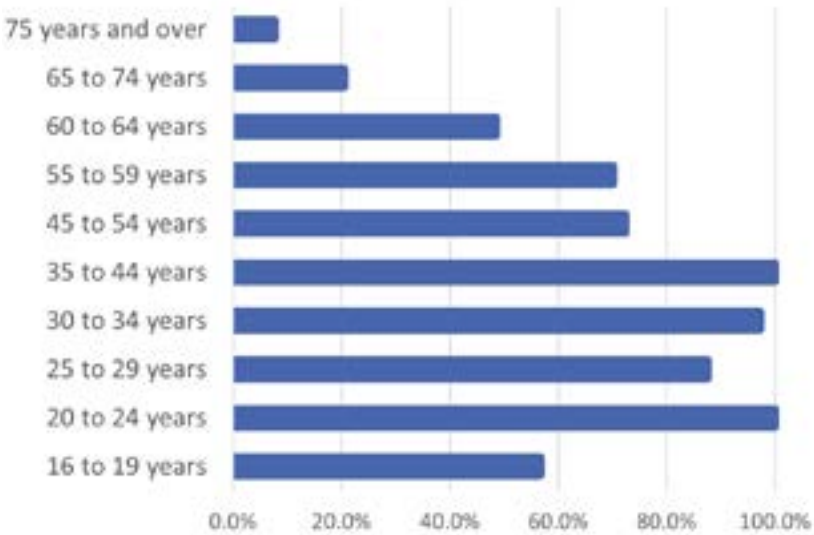


Figure 16: LFPR by Age Cohort 2020 American Community Survey

Unemployment Rate

The Unemployment Rate in 2020 was estimated to be 8.7%. This number fluctuated as a result of the COVID-19 pandemic, which began to cause greater impacts after 2020.

Median Household Income

Cape Charles has a slightly higher median household income than its surrounding Northampton County and nearby Exmore and Accomack County, however, the region is much lower than the median household income of rest of the state, at \$76,398.

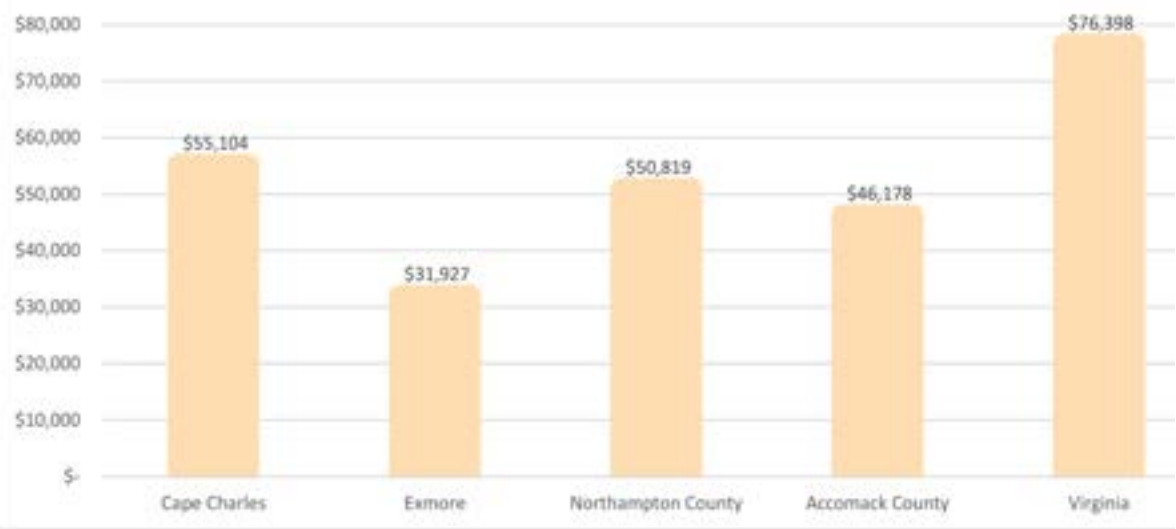


Figure 17: Median Household income, 2020 American Community Survey

Employment by Industry

The largest sectors of employment are Arts, Entertainment, and recreation, and accommodation and food services with Educational services, and health care and social assistance being the second largest. There is some diversity in the Town’s economy, but ideally there would be less reliance on major employers to allow the Town to be more economically resilient. One issue that can be tied to the Town’s reliance on arts, entertainment, and food services, is the slowing of retail activity during the Eastern Shore off-season.

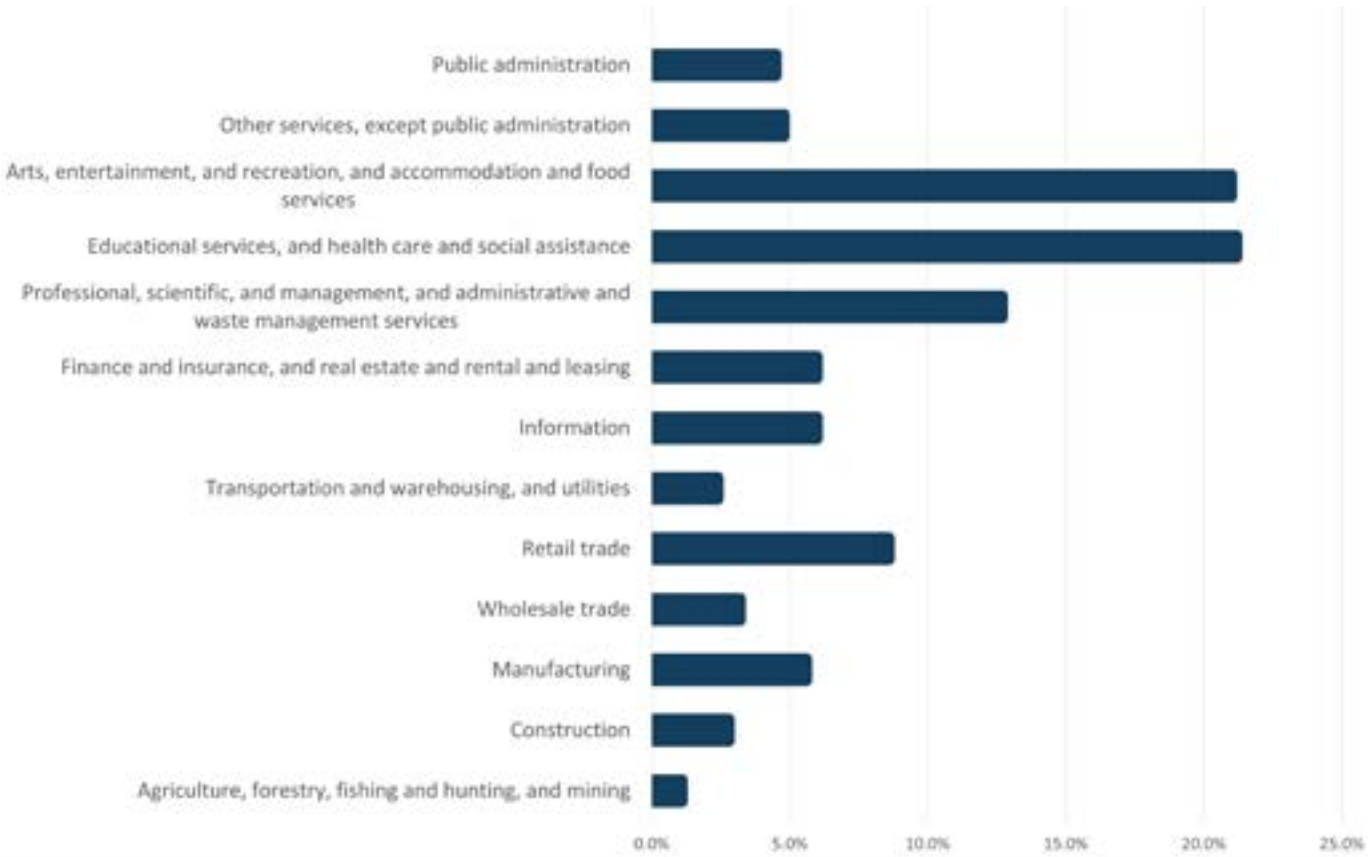


Figure 18: Employment by Industry, 2020 American Community Survey

Major Employers

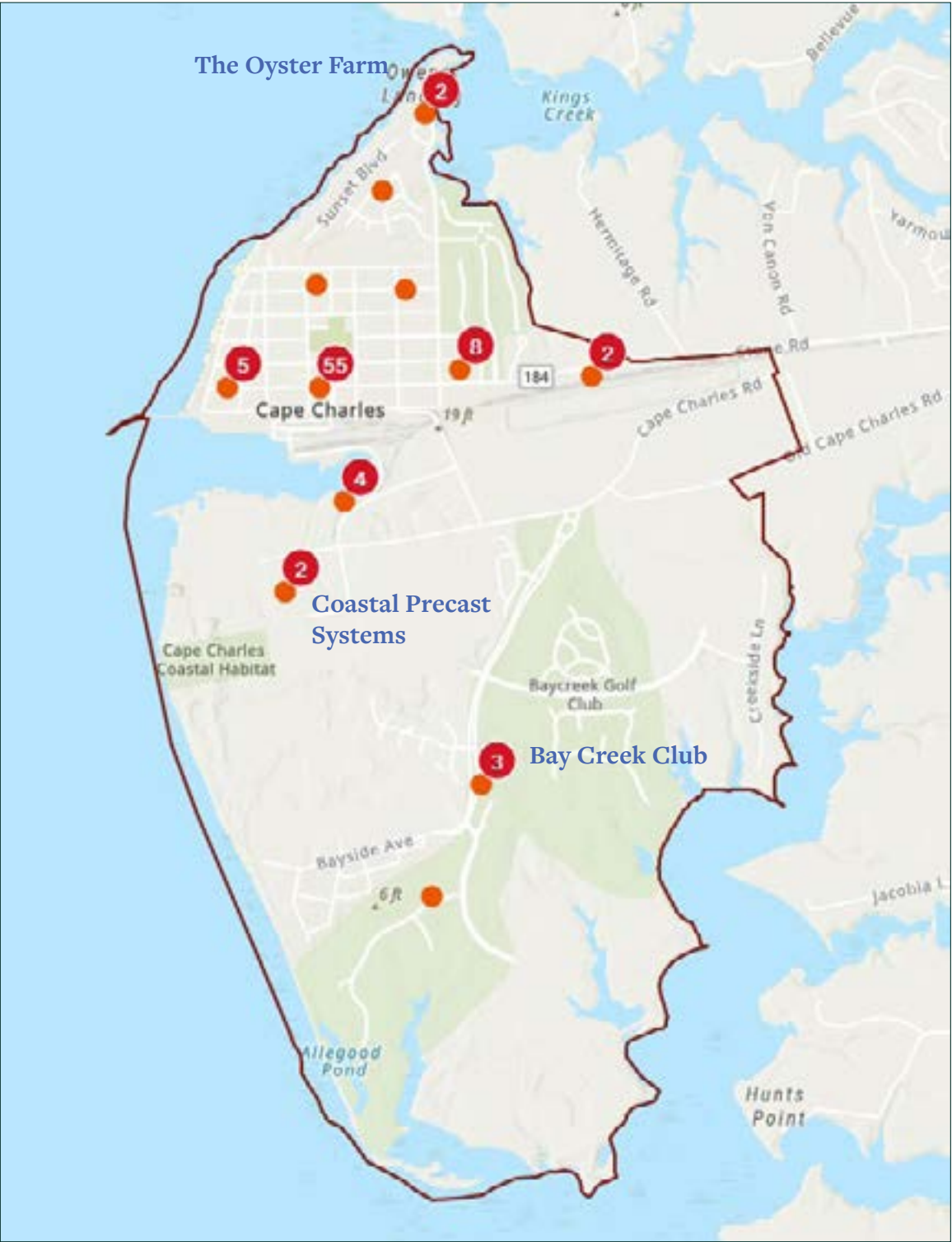
Coastal Precast Systems is the largest employer in the Town by a significant margin. The company is located in the central portion of the Town located by the harbor and employs 169 people. The next largest employer is the Cape Charles Town Government, employing 32 people. The top 23 employers are presented in the table below. As this information was generated from ESRI Business Analyst, actual numbers of employees might be slightly off or some small businesses may not be reported.

Business Name	Address	Number of Employees
Coastal Precast Systems	Bayshore Ln.	169
Bay Creek Resort & Club	Clubhouse Way	80
Cape Charles Town Government	Plum St.	32
U.S. Coast Guard	Marina Rd.	31
Shanty	Marina Rd.	30
Wendell Distributing Co.	Madison Ave.	14
Blue Heron Realty Co.	Mason Ave.	13
Coach House Tavern	Clubhouse Way	12
Rayfield’s Pharmacy Inc.	Fig St.	12
Riverside Cape Charles Medical Center	Mason Ave.	11
Cape Charles Christian School	Tazewell Ave.	10
Brown Dog Ice Cream	Mason Ave.	9
Bay Haven Inn of Cape Charles	Tazewell Ave.	8
Cape Charles Coffee House	Mason Ave.	8
Northampton Hotel	Mason Ave.	8
All Pro Professional Plumbing Services	-	7
Bay Creek Golf Club	Mason Ave.	6
Bay Creek Marina	Marina Villages Cir.	6
Cape Charles Dentistry	Randolph Ave.	6
Fig Street Inn	Tazewell Ave.	6
Resort Vacations at Cape Charles	Mason Ave.	6
Wako Chemicals USA Inc.	Patrick Henry Ave.	6
Bay Creek Communications, LLC	Bay Ave.	5
Coldwell Banker Harbour Realty	Mason Ave	5
Gull Hummock Gourmet Market	Mason Ave.	5
Kelly’s Gingernut Pub	Mason Ave.	5
Oyster Farm Seafood Eatery	Marina Villages Cir.	5

Figure 19: Employers, ESRI Business Analyst, 2021

Location of Employers

The image below and on the opposite page show the geographic distribution of Cape Charles employers. Each red dot shows the amount of businesses clustered in that area of the Town.



Map 1: Location of Employers, ESRI Business Analyst

This image shows in closer detail the locations of employers at the harbor and historic district, particularly along Mason Avenue. Each red dot shows the amount of businesses clustered in that area of the Town.



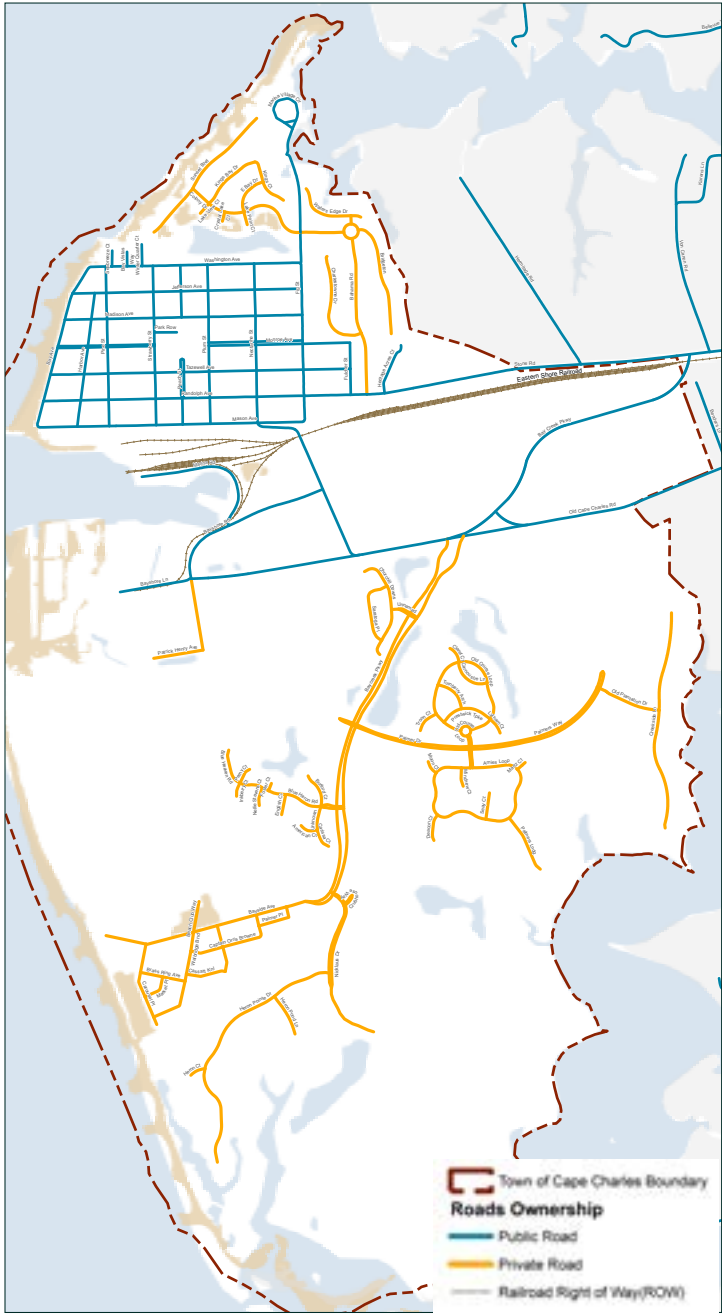
Map 2: Location of Employers, ESRI Business Analyst



Transportation

- Overview
- Public Transit
- Alleys
- Parking
- Sidewalks
- Bike Lanes and Multi-Use Paths
- Proposed Multi-Use Path

Transportation



Map 3: Road Ownership

Overview

Transportation is a major factor affecting the growth and development of the community. Residents and businesses depend upon an area’s transportation network for the safe, reliable movement of vehicles, goods, and people. The predominant form of transportation in Cape Charles is the street system, which consists of arterial roads, collector roads, and local roads. Route 13 is the Principal Arterial road on the Eastern Shore of Virginia. Route 184 leading into Cape Charles is a Minor Arterial road. Route 642 to Mason Avenue, Mason Avenue to Bay Avenue, and Bay Avenue are Major Collector roads. All other roads in Cape Charles are local roads. Route 184 connects Cape Charles to Route 13 and serves as the main arterial road of the Town. Route 184 intersects the Town’s historic street grid at Fig Street. The Town’s primary commercial road is Mason Avenue, which serves as the Town’s “Main Street.”

The Town’s transportation plans and policies encourage and can to a large extent guide the type and direction of development. While road systems offer an effective way to move people and goods across various geographical areas, they also have other effects. Roadways have a significant impact on land use and development, economic conditions, and the overall quality of life in a community. Public services such as police, fire and emergency rescue also rely on the safe and adequate provision of roadways. Furthermore, the course of a roadway often determines the paths for public utility lines, including water, sanitary sewer, storm sewer, electrical power, and communications. Facilities for rail, water, pedestrian, and other modes of transportation must also be taken into account. These factors make transportation planning crucial to many aspects of a community.

The public roads in Cape Charles are owned and maintained by Virginia Department of Transportation (VDOT). VDOT measures the volume of traffic on its roads periodically. Overall, a significant increase in traffic was seen in the residential areas of the Town’s Historic District. It is likely that a significant portion of the increase is due to seasonal variations in traffic patterns.



Map 4: Annual Average Daily Traffic

Parking

The availability and location of public parking will be a concern as downtown traffic increases. As more commercial space opens, there could be a shortage of public parking spaces for the downtown area, and the circulation of cars searching for parking could cause disruptions. Special events and seasonal traffic also create a need for additional parking at certain times. The town leases property on the south side of Mason Avenue, which currently has 63 diagonal parking spaces. To alleviate parking concerns within the Historic District, the town requested that the Virginia General Assembly grant street parking delegation to the town from VDOT. The Virginia General Assembly approved the town’s request. The town now must decide for on-street parking for oversized vehicles, e.g., boats, trailers, recreational vehicles. Additionally, a study of parking spaces in the Historic District was performed in 1999 by the Cape Charles Police Department. The study concluded that there were a total of 3,418 spaces were available. Parking near Mason Avenue is of particular concern to many citizens. The current breakdown of the available parking by street is in the chart below. This is based off of current individual street lengths taking into account intersections and parking on both sides of the street. This does not include either of the parking lots within the Town.

Area/Street (Both Sides)	# of Spaces (approx)
Historic District (total)	4975
Mason Ave.	473
Randolph Ave.	457
Tazewell Ave.	441
Monroe Ave.	338
Madison Ave.	425
Jefferson Ave.	409
Washington Ave.	400
Bay Ave.	288
Harbor Ave.	233
Pine St.	265
Strawberry St.	267
Peach St.	197
Plum St.	262
Nectarine St.	260
Fig St.	260

Map 5: Parking



Public Transit

STAR Transit, a public transportation program of the Accomack-Northampton Transportation District Commission, provides daily bus service along Route 13. STAR Transit offers multiple routes with fixed stops in Cape Charles, and also allows riders to request stops anywhere along designated routes. The buses are equipped with bicycle racks, which allow riders to travel to and from bus stops by bicycle. This service is of particular value to Town residents who do not have access to a private vehicle. In addition, specialized transportation services are offered by local nonprofit organizations, including the Eastern Shore Area Agency on Aging and the Eastern Shore Community Services Board.



Star Transit Bus, Star Transit Website

Alleys

A substantial number of alleyways exist in the Town’s Historic District. Approximately half of these alleys are used for garbage collection. Alleys also provide critical access for public safety vehicles. Where possible, alleys need to be continuous through the block to provide adequate accessibility. Additional alleys may be needed in some areas, particularly behind major commercial spaces. Currently, some of the alleys in the Historic District are in need of repair. The Town is responsible for the maintenance of all public alleyways. There is a need to clearly define ownership of all alleys to ensure the appropriate parties are aware of their maintenance responsibilities.

Map 6: Alleyways



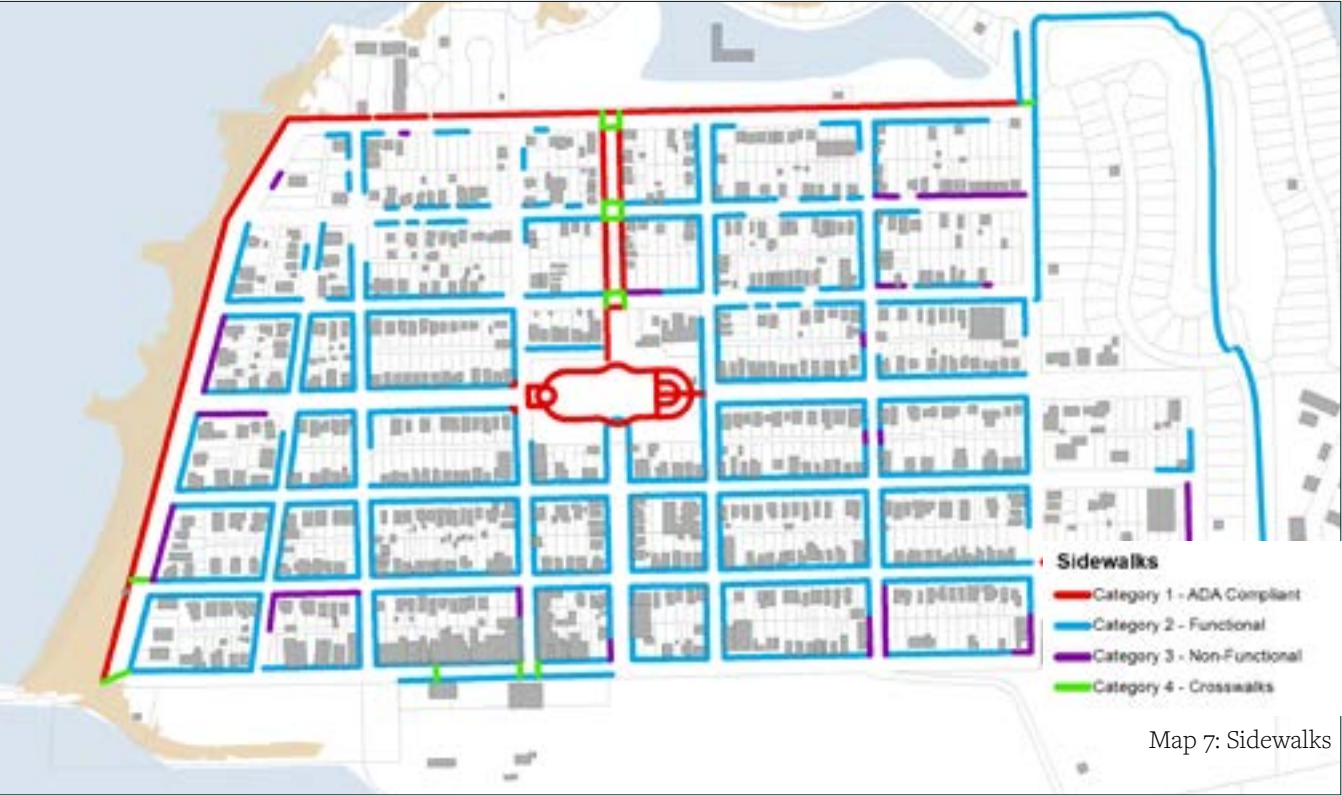
Bicycle and Pedestrian Infrastructure

Sidewalks exist in the downtown area for pedestrian traffic. The sidewalks within the Historic District are owned by VDOT and are located within the public right of way. While sidewalks exist in a large portion of the Historic District, many of the Town’s sidewalks are in a state of disrepair. Additionally, sidewalks are missing in some areas, particularly in the northern section of the Historic District and along streets east of Fig Street. A VDOT Sidewalk Study conducted in 2017 found that the majority of the Historic District’s sidewalks were functional. See Map 7, updated from the 2017 VDOT Sidewalk Study.

A Sidewalk Committee met in 2019-2020 to complete, repair, and maintain all the sidewalks throughout the town. Their recommendations were presented to the Town Council in March of 2020. The Sidewalk Committee’s recommendation was that a budget line item be added starting in 2021-2022 and continue for an additional three years to complete new and repair sidewalks.

A sidewalk trip hazard contract was awarded in October 2021 and was completed in November 2021. This contract addressed trip hazards of 0.50 inches or greater located in the 13.8 miles of VDOT maintained sidewalks within Cape Charles.

The Town lacks bike paths and other multi-use paths. With the expected increase in visitors and residential population, it is important to consider alternative means of transportation, including walking, golf carts, and bicycling. The 2035 A-NPDC Long Range Transportation Plan recommends creating a system of bike routes and multi-use paths to accommodate the Town’s current and future transportation needs. There is a distinct need for a multi-use path connecting Mason Avenue to the harbor, so that access from downtown to the harbor is convenient and safe. The downtown area is separated from the harbor by the old railroad yard, and pedestrian access between the harbor area and Mason Avenue is currently accomplished through a marked path. A series of private multi-use paths exist in the southern tract of Bay Creek.



Map 7: Sidewalks

Pedestrian and bike infrastructure is a key component of the Town’s mobility network that promotes healthy, active living, supports tourism, and is a fundamental mode of transportation for those without access to an automobile. In October 2018, Town Council approved participation with the Accomack-Northampton Planning District Commission (A- NPDC) and Northampton County in applying for funding to construct Phase IV of the Southern Tip Bike & Hike Trail. Phases I & II are completed and run about five miles from the Eastern Shore of Virginia National Wildlife Refuge Visitors Center to Capeville Drive. Phase III is under design and will terminate near the US 13/SR 184 intersection. Phase IV would bring the trail into Town along the railroad right-of-way on the south side of SR 184, for a total of about 12.5 miles. It would connect to a planned future phase of the Cape Charles Community Trail. A Memorandum of Agreement was executed, and A-NPDC applied for funding under the VDOT Highway Safety Improvement Program (HSIP).



Need a picture here.

Golf Carts

One increasingly popular means of getting around Cape Charles is the golf cart. Virginia localities can designate roads as available for use by golf carts, however they must apply for a land use permit to the Virginia Department of Transportation to ensure the decision to designate the road is not overturned as a result of golf carts impeding the safe and efficient flow of motor vehicle traffic. The locality must consider many factors such as the connectivity, character, volume, and posted speed limit of the road, which is not to exceed 25 miles per hour. Golf carts frequently use multi-use paths to reach the downtown. An increase in golf cart usage has also been observed in the Historic District. The Town issues licenses for golf carts, and allows them to operate on streets where the speed limit is twenty-five miles per hour. At slower speeds and the ability to park more spatially efficient, encouraging the further use of golf carts alongside biking and walking is one way the Town can reduce congestion and improve traffic safety.



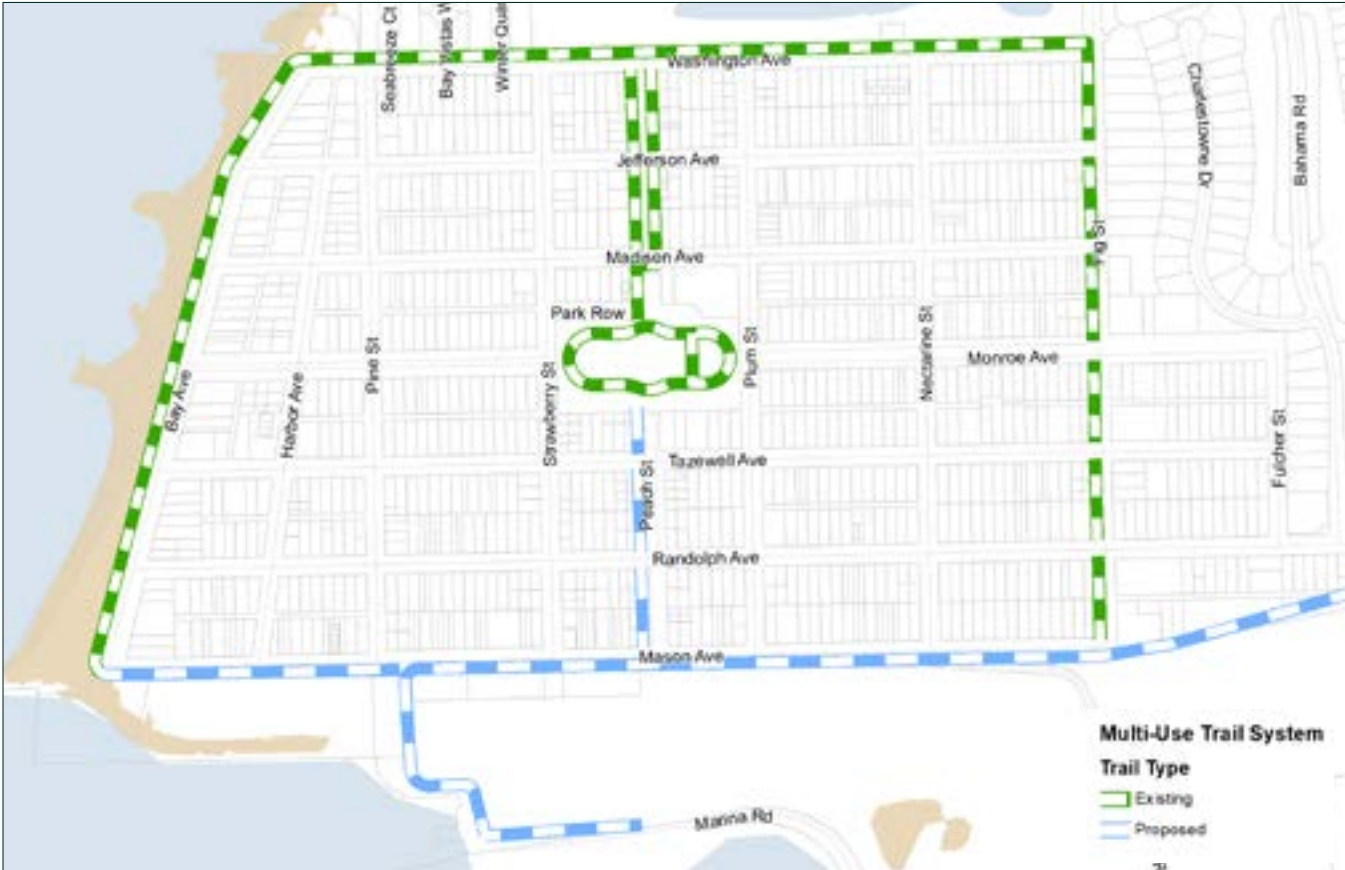
Golf Carts parked in Cape Charles downtown.

Proposed Multi-Use Path

Cape Charles is in the process of creating a multi-use trail with the goal of providing better multi modal transportation facilities and to connect different areas of Town, including the Historic District, the harbor area and the Bay Creek development. Phase 1 (Central Park) and Phase 2 (north Peach Street and Washington Avenue) have been completed. The Town Council has decided to implement a reduced scope Phase 3, encompassing the block of Peach Street between Randolph and Mason Avenues and the connection to the south side of Mason Avenue. Map 8 shows the proposed route of the multi-use trail. The Town is additionally proposing the implementation of a trail past Rayfield’s Pharmacy along the rear of parcels parallel to Randolph Ave towards the Cape Charles Brewery.



The multi-use path runs through the park.



Map 8: Proposed Multi-Use Trail

Commuting

The majority of employed residents of the Town work within the Town’s borders showing a good relationship between living and working locally. 18% are reported to work from home, with 8.7% carpooling, 5.4% walking, and 65.7% driving alone. These numbers likely reflect the influence of the COVID-19 pandemic on increasing teleworking. However, with 65.7% of respondents driving alone and many working in Town, there is the opportunity for the Town to increase the amount pedestrians and bicyclist commuters.



Figure 20: Place of Work, 2020 American Community Survey

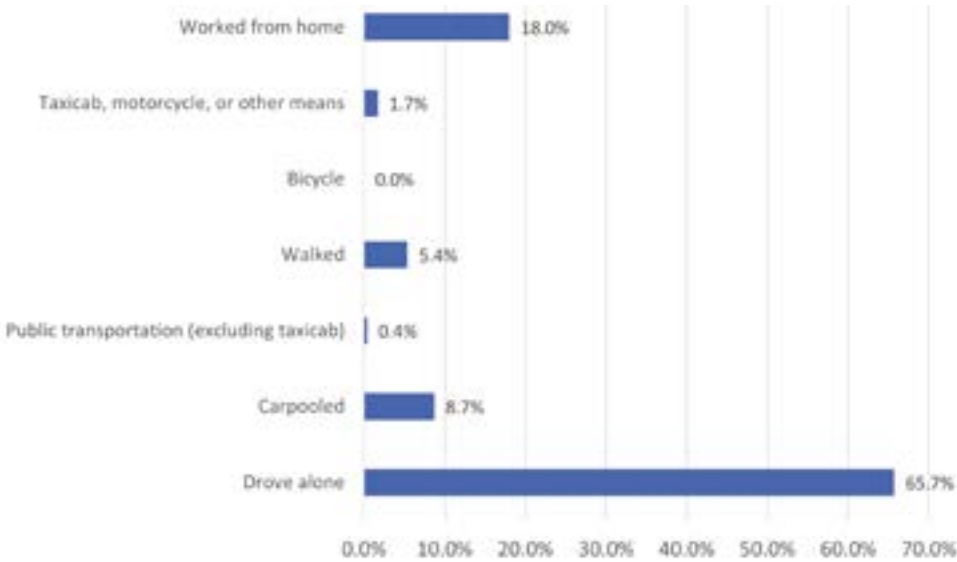


Figure 21: Means of Commuting to work 2020 American Community Survey



Parked cars in the Cape Charles downtown.



Environment

- Overview
- Climate
- Topography
- The Resilience Adaptation Feasibility Tool (RAFT)
- Soils
- Surface Water
- Ground Water
- Wetlands
- Habitat
- Waterfront Access
- Shoreline Erosion

Environment

Overview

Cape Charles has an inextricable link to its environment, particularly as a community on the water. With careful planning, the Town will protect its natural resources for future generations.

Climate

The climate of Cape Charles can be described as temperate, with hot, humid summers and chilly, but not very cold winters. Summers are usually warm and humid. July is the warmest month, and has an average daily high temperature of around 85 degrees Fahrenheit. Winters are relatively mild, with January being the coldest month. The average daily high temperature in January is 47 degrees, and the average daily low temperature is 31 degrees. The entire Eastern Shore is usually slightly warmer than the rest of Virginia due to its proximity to the Chesapeake Bay and the Atlantic Ocean.

On average, the most precipitation in Cape Charles occurs in July and August, but generally rainfall is evenly distributed throughout the year. The Town averages 45 inches of precipitation yearly. Severe storms present a risk during hurricane season from June 1 to November 30. Severe northeasterly storms can also affect the area during the fall and winter months. With rising average annual temperatures across the United States, storm events and temperature fluctuations may be more severe in the future.



Need a picture here.

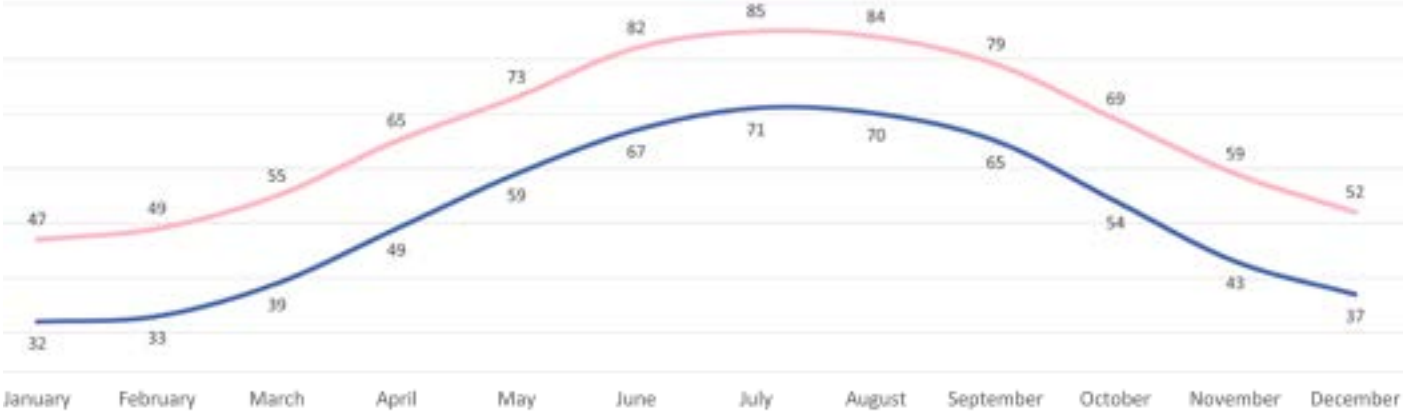


Figure 22: Average Annual Temperature, National Oceanic and Atmosphere Administration

Topography

Cape Charles lies on a peninsula and is surrounded by water on three sides. The Town is situated on the Chesapeake Bay, bordered by King’s Creek to the north and Old Plantation Creek to the south. The land in Town is low lying and relatively flat, with most of the developed land in Town between five and fifteen feet in elevation. Due to its low-lying topography, Cape Charles is vulnerable to flooding. Hurricanes and northeast storms, which are characterized by high winds, heavy rainfall, higher than normal tides, and higher than normal wave action, pose threats for flooding. All coastal areas are susceptible to flooding, therefore flood insurance is recommended for properties in coastal Virginia. However, the Federal Emergency Management Agency (FEMA) has mapped areas that are predicted to have a higher probability of flood. The Virginia Flood Risk Information System has a tool that allows you to look up your address and displays the FEMA determined areas at higher risk of flood. Portions of Cape Charles are located within the 100-year floodplain, as shown in Flood Map on Page 60. The floodplain and associated wetland areas provide valuable wildlife habitat areas as well as protect upland areas from erosion and flooding. The 100-year floodplain is delineated by the FEMA. Land within the 100-year floodplain (Special Flood Hazard Area) statistically averages one flood in a 100-year time

period, which equates to a 1% chance of flooding in any given year. However, flooding can occur more often if conditions warrant. Development within a floodplain must take these risks into account to ensure the safety and welfare of property owners the Flood Map on page 60 also reflects a 500-year floodplain.

National Flood Insurance Program (NFIP) participating communities can reduce policyholders’ premiums by participating in the Community Rating System program. The program awards points to communities that implement flood protection policies beyond minimum NFIP participation requirements. Cape Charles participates in this program and as a result has been able to achieve a 10% policy discount for its area participants. These discounts apply to NFIP policies in a Special Flood Hazard Area (100-year floodplain) and some policies located outside the area.



Need a picture here.

The Resilience Adaptation Feasibility Tool

The Resilience Adaptation Feasibility Tool (The RAFT) was conceived and developed by an academic interdisciplinary collaborative core team, led by the University of Virginia Institute for Environmental Negotiation (IEN), the William & Mary Law School Virginia Coastal Policy Center (VCPC), and Old Dominion University/Virginia Sea Grant (ODU), collectively “The RAFT Team.” Funded by a Restoration and Community Stewardship grant from the National Fish & Wildlife Foundation (NFWF), the core team’s goal was to develop a robust Resilience Scorecard and to test it with three coastal communities. Cape Charles participated as one of these pilot communities. The Resilience Scorecard is designed to be completed independently by the academic collaborative, and provides a comprehensive assessment of the locality’s resilience to flooding while remaining economically and socially relevant. The Scorecard is comprehensive in that it measures environmental, economic and social resilience factors. It covers local policy, infrastructure, budgeting and economics, land use, community engagement, community health and wellness, and ecosystems.

While there are many models and assumptions that are continually being updated as more knowledge

is obtained, one model is presented in Map 9 taken from Virginia Eastern Shore Coastal Resilience mapping tool depicting basic inundation from sea level rise for Year 2075 assuming a high projection on level rise. In this model, basic inundation data has been updated based on sea level rise scenarios from the 2017 National Climate Assessment.

The Resilience Action Workshop (June 2017) was conceived as a way to help catalyze meaningful action at the local level to increase a locality’s resilience to coastal hazards. While, on its own, The Resilience Scorecard might increase understanding, community leadership is needed to bring about meaningful change. During the workshop, participants were introduced to the Scorecard and reviewed its findings to identify the locality’s greatest resilience strengths as well as opportunities for improving resilience in the future. To build coastal resilience, Cape Charles needs to understand its vulnerability to coastal hazards, reduce the risks where possible and be prepared to respond to severe weather. The town needs to renew its commitment for continued study and action in this area, perhaps creating a committee that reviews study results and provides recommendations for addressing its resiliency to flooding.



Map 9. Sea level rise projection by 2075.

Soils

As shown in the Soils Map on Page 62, Bojac and Munden soils are the predominant soils in Cape Charles. Bojac soils are considered very suitable for development, while Munden soils are considered fair. Poor soils, which are generally unsuitable for development, are found along the edges of the Town’s shorelines and in isolated areas inland. All of the soils in Town are either hydric or highly permeable, with ground water being a relatively shallow distance underneath. Highly permeable soils are extremely susceptible to pollutant leaching and create a high potential for ground water pollution. Hydric soils are primarily wet and drain poorly. Soils are identified with a three character symbol. The first letter is the first letter in the soil’s name. The second letter distinguishes between classifications that begin with the same letter. The third letter indicates the class of the slope. The A class has the lowest slope, while the E class has the steepest slope present in this area. Soil types within Cape Charles are discussed below:

Assateague Sand (AsE):

Gently sloping to very steep, very deep, and excessively drained. On and between dunes along the Bay. Very rapid permeability and low water capacity. Used mainly for wildlife habitats and recreation areas. High permeability, slope, sandy texture, and the hazards of seepage and instability limit development.

Beaches (BeB):

Sandy marine sediments deposited by wave action. Used mainly for wildlife habitats and recreation areas. Tidal flooding, severe erosion, and accretion of sediments limit most other uses.

Bojac Fine Sandy Loam (BoA):

Nearly level, very deep, and well-drained farmland. Moderately rapid permeability and instability of the soil are limitations to development.

Bojac Loamy Sand (BhB):

Gently sloping, very deep, and well drained. Moderately rapid permeability and instability of the soil are limitations to development.

Camocca Fine Sand (CaA):

Nearly level, very deep, and poorly drained. Very rapid permeability. Used for wildlife habitats and

recreation areas. Seasonal high water table, flooding, sandy texture, and instability hazard limit soil for development.

Chincoteague Silt Loam (ChA):

Nearly level, very deep, and very poorly drained soil located primarily in tidal marshes. Tidal flooding, the seasonal high water table, ponding, low strength, and salt are major limitations for development.

Dragston Fine Sandy Loam (DrA):

Nearly level, very deep, and somewhat poorly drained. Used mainly for cultivated crops and woodland. Seasonal high water table, rapid permeability, poor filtering capacity, and seepage limit development.

Fisherman Fine Sand (FhB):

Nearly level, gently sloping, very deep and moderately well drained.

Molena Loamy Sand (MoD):

Moderately sloping to steep, very deep, and somewhat excessively drained. Rapid permeability. Slope, high permeability, and droughtiness limit soil for development. Used mainly for woodland and wildlife.

Munden Sandy Loam (MuA):

Level, deep, and moderately well drained. Seasonal high water table and rapid permeability limit development.

Nimmo Sandy Loam (NmA):

Nearly level, deep, and poorly drained. Used for farmland when drained. Seasonal high water table, seepage, and rapid permeability are limitations for development. Limited for roads and streets.

Polawana Loamy Sand (PoA):

Nearly level, very deep, and very poorly drained. Used mainly for woodland. Seasonal high water table, rapid permeability, flooding, and wetness are major limitations for development.

Udorthents & Udipsammits (UPD):

Mainly fill and spoil materials and sandy materials in excavated areas. Characteristics are so variable that on-site investigation is necessary to determine suitability for most uses.

Surface Water

Surface water in Cape Charles includes the Chesapeake Bay to the east, King’s Creek to the north, and Old Plantation Creek to the south and east. All surface water has a high saline content, except for several small ponds located within the Town, which are fresh or brackish water. Cape Charles is characterized by extensive shorelines, ranging from sandy beaches on the Chesapeake Bay to marsh fringes on King’s Creek and Old Plantation Creek. Approximately 19,200 feet (3.6 miles) of shoreline front directly onto the Chesapeake Bay. The entire Town lies within the Chesapeake Bay watershed, draining either directly into the Bay, or into Old Plantation Creek and King’s Creek, and then into the Bay.

The Chesapeake Bay has played an important role in the history and identity of Cape Charles and the Eastern Shore, providing valuable economic, environmental and recreational resources, and servin as the nation’s largest and most productive estuary. However, pollution is causing the Bay’s water quality to decline. Pollution can be classified as either point source or nonpoint source. Point source pollution results from discharge at a specific point, such as the Town’s wastewater treatment plant, which is discussed in the Public Facilities section of this plan. Nonpoint source pollution is not attributable to distinct, identifiable source, but enters water indirectly. Nonpoint source pollution includes stormwater runoff from developed land and impervious surfaces, runoff from agricultural land, and erosion of soil and shorelines. Under natural conditions, water running off the land soaks into the ground and is filtered by soils and vegetation root systems. Disturbing sensitive areas can increase the speed and volume of surface runoff, resulting in erosion, sedimentation, and siltation of ship channels — a particularly devastating process to a Town with economically vital harbors and marinas. In settled areas where much of the land is paved or “impervious,” stormwater cannot soak into the ground and runs off very rapidly. The runoff carries pollutants such as oil, sediment, chemicals, pesticides, and excess nutrients from fertilizer, which eventually reach the waters of the Chesapeake Bay unless filtered or retained by some structural or nonstructural technique. Pollution of the water column and a reduction in the amount of light reaching submerged aquatic vegetation

choke important parts of the aquatic food chain. Ultimately, spawning grounds and benthic habitats are destroyed, resulting in serious problems for commercial fishermen. Land management techniques that minimize the amount of impervious surfaces and increasing the filtering capacity of the land can be used to reduce nonpoint source pollution. The Town has enacted a Chesapeake Bay Preservation Act Program, which enables the Town to protect water quality through local land use regulations. The Bay Act is a Virginia Law, which provides a legislatively mandated approach to protect and improve the waters of the Chesapeake Bay and its tributaries by reducing nonpoint source pollution through wise resource management practices. The Town has designated Chesapeake Bay Preservation Areas (CBPAs), and has applied certain development standards to these areas. The Town’s CBPAs consist of Resource Protection Areas (RPAs), Resource Management Areas (RMAs) and Intensely Developed Areas (IDAs).



A golf cart drives past the pooled stormwater.

Future development activities in these preservation areas are guided by the Town’s Zoning Ordinance, which establishes standards to mitigate development impacts on water quality.

RPAs consist of sensitive lands at or near the shoreline which have important water quality value to the Bay, such as tidal shorelines and wetlands. RPAs also include a 100- foot vegetated buffer area landward of these features, where development activities are restricted. RMAs consist of sensitive land types which have the potential for causing significant water quality degradation if they are improperly developed. RMAs in Cape Charles include the 100-year floodplain and nontidal wetlands. Development within RMAs should be planned in a manner which reduces the impact of nonpoint source pollution. IDAs consist of densely developed areas that are largely devoid of natural vegetation. The Town’s IDAs are located adjacent to the Cape Charles harbor and at the Bay Creek Marina. IDAs are designated to focus development in areas where it is already concentrated and supported by existing infrastructure while improving water quality. New development and redevelopment in IDAs must achieve a 10% reduction in nonpoint source pollution from storm water runoff. Opportunities for water quality improvement through redevelopment of IDAs include re-establishing natural vegetation and establishing a vegetated buffer over time to promote the water quality benefits of natural vegetation.

Another element of nonpoint source pollution includes boating activity. Due to its location on

the Chesapeake Bay, Cape Charles is popular with recreational boating and fishing enthusiasts. In addition, commercial fishing is a small yet visible activity in Cape Charles. While boating-related activity has a positive impact on the local economy, it can adversely impact Bay water quality if not handled properly. Several boat-related facilities are located in the Town, including a public marina and harbor as well as a commercial marina. Boating activity can potentially degrade water quality through inappropriate discharge of human waste and trash, fuel spills, oil spills, and toxic bottom paints. In order to lessen the impact of water pollution through proper waste disposal, the Virginia Department of Health requires marinas to have restroom facilities, pump-out facilities, and sewage dumping stations for portable toilets.

An extremely clean environment is needed for shellfish to thrive and be consumed safely. Shellfish require water fourteen times cleaner than where humans can safely swim. The Virginia Department of Health (VDH) monitors water quality to determine where shellfish can be safely harvested. Unclean areas are condemned by VDH and cannot be harvested. Map 10 provides locations of shellfish grounds that have been condemned in areas near Cape Charles. In addition to shellfish grounds, a substantial amount of submerged aquatic vegetation is located in the waters surrounding Town. Boating activity can impact fisheries in the area by causing increased water turbidity, which can choke shellfish grounds and decrease the amount of sunlight reaching submerged aquatic vegetation.



Map 10. The crosshatched areas represent condemned shellfish areas. The dots represent seasonally condemned shellfish areas. See the Virginia Department of Health website for more information.

Ground Water

Cape Charles, along with the entire Eastern Shore of Virginia, depends entirely upon ground water for its water supply needs. Ground water on the Eastern Shore is made up of a series of aquifers — bodies of sediments capable of yielding water. The uppermost aquifer is called the Columbia aquifer, also known as the water table. In the Cape Charles area, the Columbia aquifer is approximately 40 to 70 feet thick. Below the Columbia aquifer is the Yorktown aquifer system, consisting of upper, middle and lower units. The Town’s water supply is withdrawn from the upper and middle Yorktown aquifer units. The Yorktown aquifer system is separated from the Columbia aquifer by confining layers of clay, which help protect it from contamination, but also impede the amount and rate of recharge.

Fresh water is supplied into the aquifer system by rainfall, which penetrates the soil and recharges ground water aquifers. The Eastern Shore ground water flow system is characterized by brackish water of the Bay to the west and salt water of the Atlantic Ocean to the east, with limited occurrence of freshwater. Most water in the Columbia aquifer flows laterally from the center of the Eastern Shore peninsula, discharging into the Atlantic Ocean and Chesapeake Bay. A much smaller portion of water flows down through the clays and silts that separate the Columbia aquifer from the underlying Yorktown aquifers. Ground water recharge occurs near the center spine of the peninsula, forming an island-type freshwater lens. The Town is not located within the spine recharge area. Ground water modeling studies indicate approximately 11 million gallons of water are recharged to the Yorktown aquifer each day.

Because ground water is a limited resource, water conservation is critical in protecting and managing this valuable resource. Overpumping of ground water is a concern for the Eastern Shore, and could lead to well interference, saltwater intrusion, and a deterioration of water quality. In Cape Charles, water conservation measures are crucial for maximizing the available water supply and meeting future demands.

The Eastern Shore of Virginia is divided into five wellhead protection areas, based on ground water divides created by pumping patterns of the major ground water withdrawers on the Eastern Shore. Cape Charles is located in Wellhead Protection Area E - Cape Charles Area. This wellhead protection area

is the southern-most wellhead protection area on the peninsula.

In 1997, the Environmental Protection Agency (EPA) designated the Eastern Shore’s aquifer system as the Columbia and Yorktown-Eastover Multiaquifer System Sole Source Aquifer. A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water to its overlying area. This designation helps protect ground water quality by requiring EPA review of all projects receiving federal funding.

The Eastern Shore of Virginia was declared a Critical Ground Water Area in 1976. Any party needing to withdraw 300,000 gallons per month or more in the Eastern Shore Ground Water Management Area must obtain a permit from the Virginia Department of Environmental Quality (DEQ). All permit holders are required to report ground water use and implement a water conservation and management plan.

Cape Charles has been approved for a Ground Water Withdrawal Permit from the DEQ allowing a withdrawal capacity of 5.8 million gallons per month. A ground water impact assessment was conducted for the Town to study possible effects of the withdrawal, and found that over the 10-year permit period, no measurable saltwater intrusion or other water quality changes are expected to occur. However, it is possible that some saltwater intrusion may occur in the lower Yorktown aquifer in the long term (100 years) as a result of the Town’s withdrawal, in which case treatment of potable water by reverse osmosis can be used as a contingency.

Ground water contamination due to septic filter fields is not a major issue in Cape Charles because most residents and businesses in the Town are served by public utilities, however, nine septic systems still exist. When demand is created by future development, public sewer services will be extended to parts of Cape Charles that are not currently served. Property owners receiving the new services will pay for the cost of extending public utilities to these areas, as provided for in the Town Code.

The Eastern Shore of Virginia Ground Water Committee has overseen the development of regional ground water plans and studies since 1990. Although Cape Charles is within the area overseen by the committee, the Town does not have member status. The mandate of the committee is to “assist local governments and residents of the Eastern Shore in understanding, protecting and managing ground water resources, to prepare a ground water resources protection and management plan, to serve as an educational and informational resource to local governments and residents of the Eastern Shore, and to initiate special studies concerning the protection and management of the Eastern Shore ground water resource.” Cape Charles recognizes the regional nature of the ground water issue and supports the committee in its efforts.



Need a picture here.



Need a picture here.

Wetlands

Several parts of Cape Charles are considered wetlands. Wetlands can be defined as areas that are wet or have wet soils during some part of the growing season. Tidal wetlands are influenced by tidal fluctuations and exist along the coastline. Tidal wetlands may include vegetated marshes and swamps or non-vegetated mud and sand flats. Nontidal wetlands are usually found inland and are not impacted by tidal changes, but still meet the definition of a wetland. Local land that is included in the U.S. Fish and Wildlife Service’s National wetlands Inventory can be viewed in the Wetlands Map on page 60.

Wetlands have historically been considered wastelands, because they are usually not suitable for farming or building due to their unstable and wet nature. Often these areas are also breeding grounds for insects. In the past, wetlands were frequently drained or filled to make the land developable. This negative view overlooks several important characteristics of wetlands. Wetlands are home to a diverse population of mammals, waterfowl, and marine organisms. In addition to providing homes for species that are of direct benefit to humans, many other plant and animal species are exclusively present in wetlands, making the areas an important part of regional ecosystems. Wetlands also offer a natural means of protecting water quality. Densely vegetated wetlands act as a natural filter by trapping sediments and nutrients before they reach nearby waterways. The filter feeding organisms present in non-vegetated wetlands also protect water quality by removing suspended solids from the water column. Because of their location near coastlines, wetlands can also protect an area from flooding and erosion. The dense root systems present in vegetated wetlands can help slow erosion caused by unusually high tides and wave action. The sponge-like quality of the soils present in wetlands can also protect the upland against flooding by absorbing some flood water resulting from a rise in sea level.

Cape Charles recognizes the multitude of important characteristics wetlands possess. Many regional wetlands have been filled or drained in recent decades, making it imperative to preserve the existing wetlands. The Town has adopted a Wetlands Ordinance to regulate the use of these areas, and has a Wetlands Board that oversees activities in wetlands.



Need a picture here.

Habitat

Cape Charles encompasses diverse and significant ecosystems which support a variety of wildlife and plant species. Forested upland areas are located in the southern portion of Town along the edges of Bay shoreline, and in several large tracts further inland. These forested areas, particularly near the Bay shoreline, provide important habitat for a variety of wildlife. As previously mentioned, the Town’s wetlands also support a variety of species. The Virginia Department of Game and Inland Fisheries lists several species of animals as threatened in the Town and its vicinity. These species include, but may not be limited to, the Northeastern Beach Tiger Beetle and the Bald Eagle. Cape Charles is located along one of the most significant flyways on the eastern seaboard for migratory birds, including waterfowl, shorebirds, and migratory songbirds, which are declining worldwide. The eastern coastline of the Bay is vulnerable to forest fragmentation and other disturbances. Habitats required for transient, breeding, and resident bird species, and particularly the vegetation upon which they depend, have been greatly reduced. Protection of these areas is critical to insure the healthy continuance of local and regional ecosystems. Future development could potentially place further stress on migratory and other land bird species, as well as the large variety of wildlife and plant species found in the area. Located south of Bayshore Concrete is the Coastal Habitat

Natural Area Preserve, a 50-acre habitat protection area (expanded by 20.7 acres in 2020). This preserve, found on the Bay side of the Eastern Shore, is within the Audubon Lower Delmarva Important Bird Area (IBA) and considered internationally significant for migratory birds according to Virginia Coastal Zone Management Program’s Geospatial and Educational Mapping System (Coastal GEMS). It is also part of the DWR Virginia Birding and Wildlife Trail. Most of the Preserve acreage protects forested uplands that may be viewed from a wheelchair accessible boardwalk. A small amount of very sensitive dune and shoreline habitat, along with several rare species, are also protected here but access to these is restricted. The preserve provides habitat for the federally threatened northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*). Coast bedstraw (*Galium hispidulum*), an herbaceous plant, grows on the dunes at the interface between open grassy areas and shaded areas where shrubs and trees dominate. During fall migration, the forest abounds with migratory songbirds and raptors resting and feeding before continuing their journey across the Chesapeake Bay. A long boardwalk takes visitors through several forested natural communities, including a globally-rare Maritime Dune Woodland, and ends at a low bluff overlooking the Chesapeake Bay. The preserve is owned and managed by the Department of Conservation and Recreation.



Need a picture here.

Waterfront Access

By providing public waterfront access, the Town encourages the public to experience firsthand the importance of water quality in Cape Charles through recreational pursuits such as sightseeing, fishing, and swimming. Numerous public waterfront access areas exist in Cape Charles, including the harbor, Cape Charles beach, the municipal pier, and the Coastal Habitat Natural Area Preserve. King’s Creek Marina (formerly Bay Creek Marina) also provides waterfront access. Preserving the quality of the Bay and its tributaries is a high priority in Cape Charles. Development pressure in waterfront areas threatens environmentally sensitive habitats which are critical to Bay wildlife and water quality. The high demand for waterfront property has increased land values, making public acquisition of these lands difficult or impossible. This makes it critical that the Town maintain, improve, and preserve all public lands which provide waterfront access as well as collaborate with private landowners to ensure protection of the environment.

Shoreline Erosion

The Town has approximately 19,200 feet of shoreline fronting directly on the Chesapeake Bay. The mean tide range is 2.4 feet and the spring tide range is 2.9 feet. Prevailing winds along the shoreline have an average velocity of 10 miles per hour and are from the south to southwest. The effective fetch from Cape Charles to the south/southwest is about 16 miles, with an average depth of 25 feet. Cape Charles Beach, which begins at the Cape Charles harbor and extends north approximately 2,800 feet (1/2 mile), consists of a narrow sandy beach, bordered by a boardwalk and public street. North of Cape Charles Beach is approximately 4,400 feet (3/4 mile) of natural shoreline bordering the Bay, extending to the mouth of King’s Creek. At the mouth of King’s Creek, the shoreline extends for 9,500 feet (1.8 miles), forming the eastern boundary of the Town. The shoreline of King’s Creek is characterized by wetlands, consisting of fringe and embayed marsh. South of Cape Charles Beach and the Cape Charles harbor is a 12,000 foot (2.2 mile) stretch of natural shoreline fronting the Bay, characterized by a sandy beach. The northern half of this beach is wide and sandy, with sand dunes. The southern half of the beach is sandy and narrow, with tree stumps and woody debris, and an elongated

pond running behind and parallel to the south end of the beach. The beach extends to the mouth of Old Plantation Creek, where the shoreline turns inland, extending approximately 14,500 feet (2 3/4 miles) and forming the southeastern boundary of the Town. The shoreline of Old Plantation Creek is characterized by wetlands consisting of fringe and embayed marsh.

Cape Charles Beach has been used as a recreational area since the early 1900’s. In 1982, Brown and Root, Inc. transferred the title of the public beach to the Town. The transfer stipulated that the beach would remain public and would be maintained by the Town. The beach has been steadily deteriorating for thirty years before the transfer. The beach had been steadily deteriorating for thirty years before the transfer. Portions of this shoreline are still eroding. A study conducted by Byrne and Anderson in 1978 found that the historic erosion rate in Cape Charles had been 1.5 feet per year. Erosion accelerated in the 1980’s. A study by the U.S. Army Corps of Engineers in 1991 indicated that erosion rates from 1986 to 1990 were four to five feet per year. Current documentation of erosion rates in Cape Charles do not exist. However, based on visual assessment of the beach, it is likely that the Town’s erosion rate has remained high. This trend may continue, as there is belief in the scientific community that overall erosion rates in the Chesapeake Bay area have accelerated in the past several years.

The most significant cause of shoreline erosion in the Chesapeake Bay system is the combined action of wind and waves on the shoreline. Storm winds generate large waves which cause much of the damage. During storms and hurricanes, strong winds push additional water against the ocean coast and into the Chesapeake Bay, resulting in higher water levels of tides, which generally range between one and three feet, but may reach several feet in magnitude. Aside from the obvious hazard of flooding low-lying areas, these higher tides permit the erosive action of the waves to directly attack the fastland above the usual buffer provided by the beach. Offshore shoals help protect Cape Charles by reducing the height of waves that are greater than three feet in height. However, the impact of these waves is still significant.

According to the Public Beach Assessment Report for Cape Charles Beach, prepared by VIMS in 1993, the shoreline in Cape Charles is typically affected by northwest winds which occur from late fall to early spring, as well as southwest and westerly winds that are most frequent from early spring to late fall. Waves created by northeast storms do not impact the Cape Charles shoreline directly, but usually produce significant storm surge. As the post-storm winds often shift to the northwest, the water level is elevated for a short period of time. This scenario can produce high waves acting on the Cape Charles shoreline.

Erosion activity is further influenced by short-term fluctuation of lunar and storm tides and long-term sea level rise. The average sea level rise in the Bay is about .01 foot per year, or one foot per century. Although this rate seems small, its effect is dramatic considering that the fringes of the Bay have very gentle slopes, where a small increase vertically covers appreciable horizontal distance. Thus, each decade brings constant encroachment against the fastland.

Several shoreline protective measures have been taken in recent decades. The public beach contains a seawall, consisting of a walkway and bulkheading which extends 2,300 feet along the back of the beach from the stone jetty. In 1982, groins were constructed at the public beach, which were 150 feet long and 300 feet apart. A severe storm in November, 1985 resulted in extensive damage to the beach. The beach was significantly widened in 1987 as a result of beach nourishment with 87,000 cubic yards of sand dredged from the harbor channel by the Army Corps of Engineers. The beach fill project was of major beneficial impact to the public beach. In 2016, Virginia Marine Resource Commission notified the town that the dredging for the Cape Charles Navigation Project was completed. The total quantity of material removed was 142,623 cubic yards. 113,078 cubic yards was sent to the Cape Charles Harbor Upland Placement Site and 29, 545 cubic yards was pumped onto the beach as beach replenishment.

In 1988, the Town initiated a project to install sand fencing and dune grasses, to help stabilize the public beach and control blowing sand. Fences were installed by the Department of Transportation and the Youth Conservation Corps, and dune grasses were planted by volunteers. Extensive dunes have

developed as a result of these efforts. The current dune system has reached elevations between five and ten feet above sea level.

In 1993, VIMS prepared the Public Beach Assessment Report for Cape Charles Beach, which assessed the rates and patterns of beach change on Cape Charles’ public beach. According to the Report, the public beach had been reduced in volume approximately 19% since the beach nourishment project of 1988. By 1995, severe erosion along the north end of the beach had exposed the face of the bulkhead. Approximately 1,200 cubic yards of sand were used in 1995 to fill the area in front of the bulkhead, and in 1996 dune walkovers were constructed to prevent erosion due to foot traffic.

Several other shoreline protective structures exist in Cape Charles, located at the harbor and the public beach. A stone jetty is located at the northside of the harbor entrance, extending 1,200 feet into the Bay. The jetty protects the harbor somewhat from waves and limits sedimentation in the harbor from longshore drift. The jetty also helps protect the public beach by serving as a significant barrier to littoral transport of nourished beach sand. At the southside of the harbor entrance is a 200 foot earthen jetty, or mole, which anchors the end of the beach and helps keep the harbor mouth open. Approximately 4,500 feet of bulkheads line the periphery of the harbor and eliminates most shoreline erosion in the harbor. As time goes on, the jetty is slowly deteriorating and will need eventual investment and repairs as part of the Town’s Capital Improvement Plan.



The deteriorating jetty on the north side of the harbor.

Erosion along Cape Charles Beach.

The storm drain outfall has also had a local impact on the very north end of the beach. The public beach is bordered on the north by a large storm water outfall pipe that extends about 300 feet from the bulkhead into the Bay. The pipe was installed as part of the 1988 beach nourishment project and subsequently has been reinforced with gabions including gabion spurs on either side. Presently, the outfall has a local effect on the public beach by partially blocking sand moving south along the shoreline from King’s Creek. The outfall and associated spur are also causing an alteration in the beach platform to the immediate south. Artificial nourishment is needed periodically on the beach, due to lack of sufficient natural sand supply for replenishment. Sand retaining devices are also needed beneficial to prevent sand from eroding. The Town recently hired Vanasse Hagen Brustlin, Inc. (VHB) to design shoreline stabilization for Cape Charles Beach. Four near shore breakwater structures will be constructed to control erosion along approximately 1,700 linear feet of shoreline. Additionally, the beach will be nourished with 35,000 cubic yards of sand replenishment, and 70,000 square feet of dune plantings are will be used for stabilization. A Beach and Dune Management Plan was developed by the Wetlands and Coastal Dune Board at the request of the Cape Charles Town Council in 2018. This plan encompasses the public beach and the dunes, which are an integral part of the public beach area. Under Commonwealth of Virginia regulations, publicly-owned land is excluded from the permitting authorities of wetlands and coastal dune boards. However, the town requested advice and recommendations from this board to help guide town management of this vital public resource. In this context, Cape Charles board recommendations are advisory, that is, non-binding. However, the board’s recommendations are consistent with town ordinances, which represent the Town’s policy. Town Council adopted the plan In February 2019, and town staff utilize it to govern replenishment and protective activities.

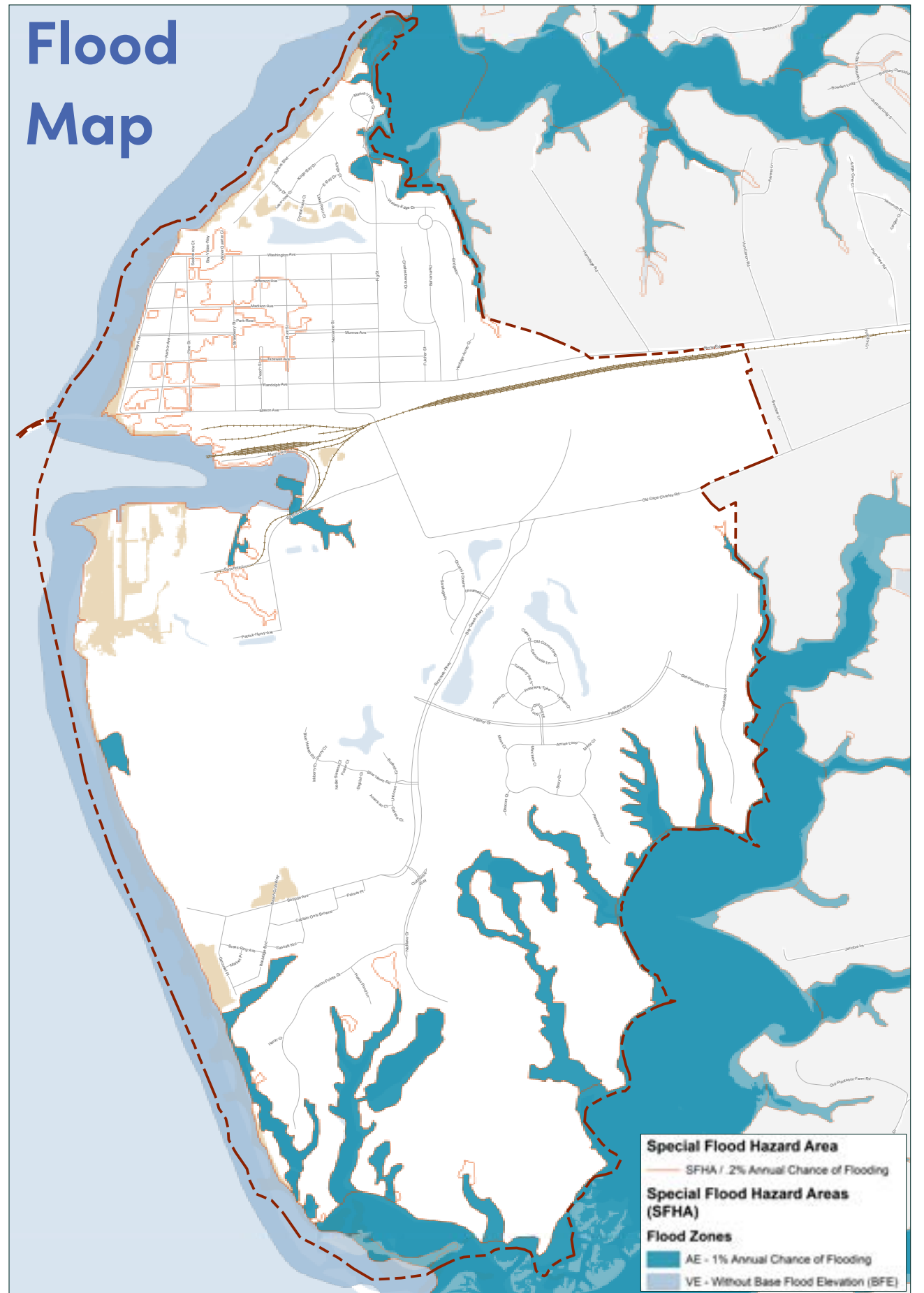


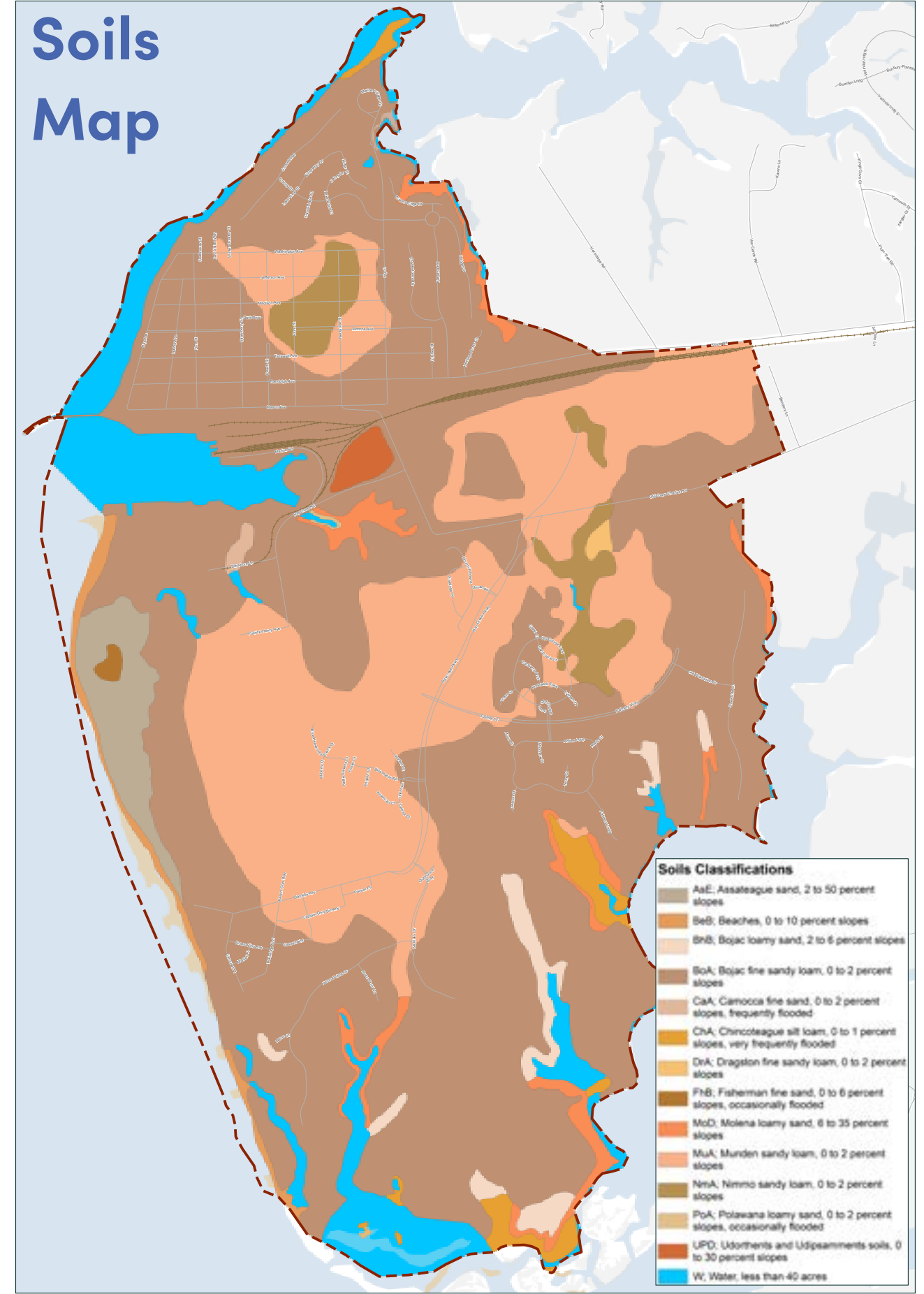
Shifting sands cover a walkway along the beach.

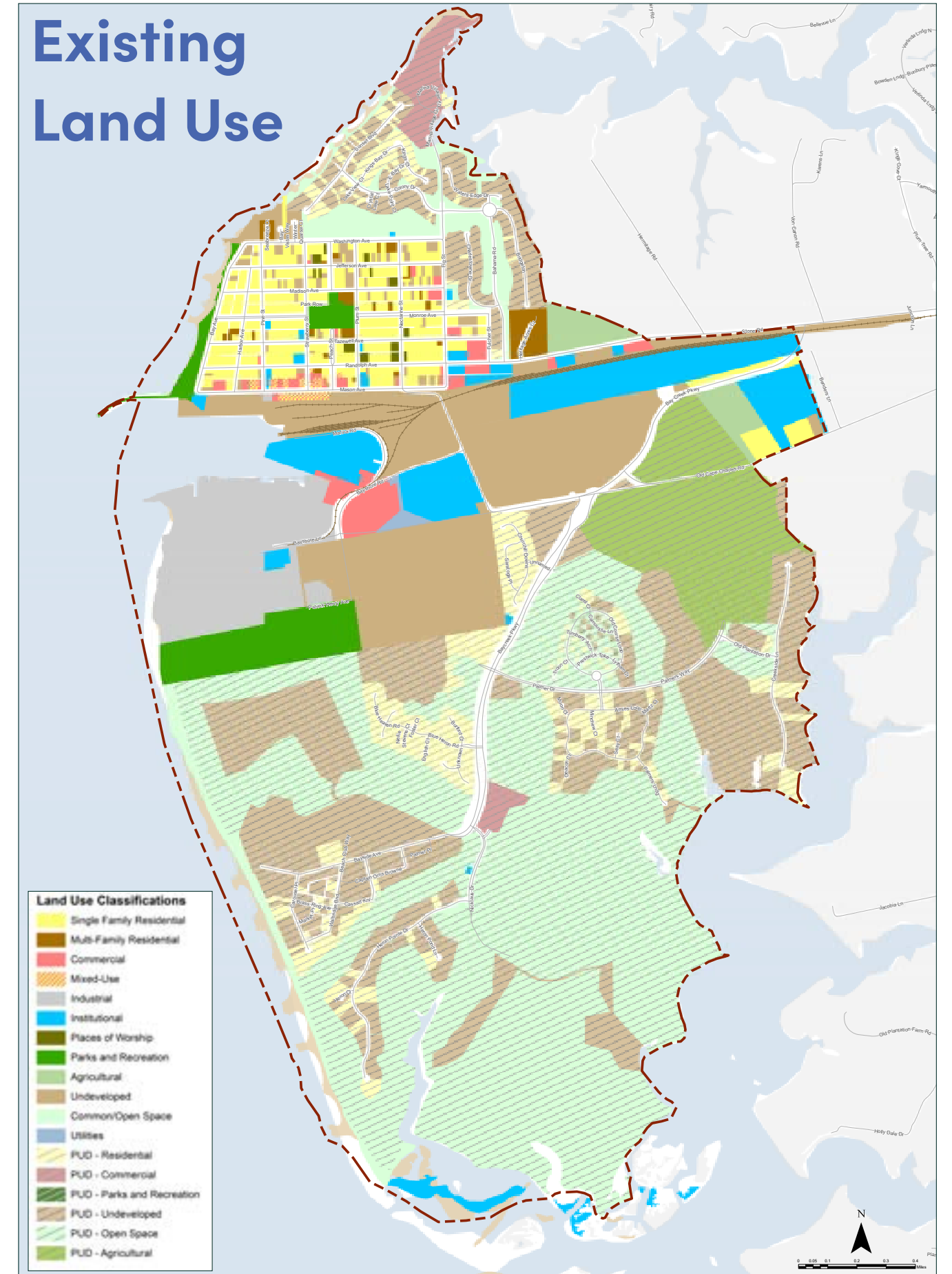
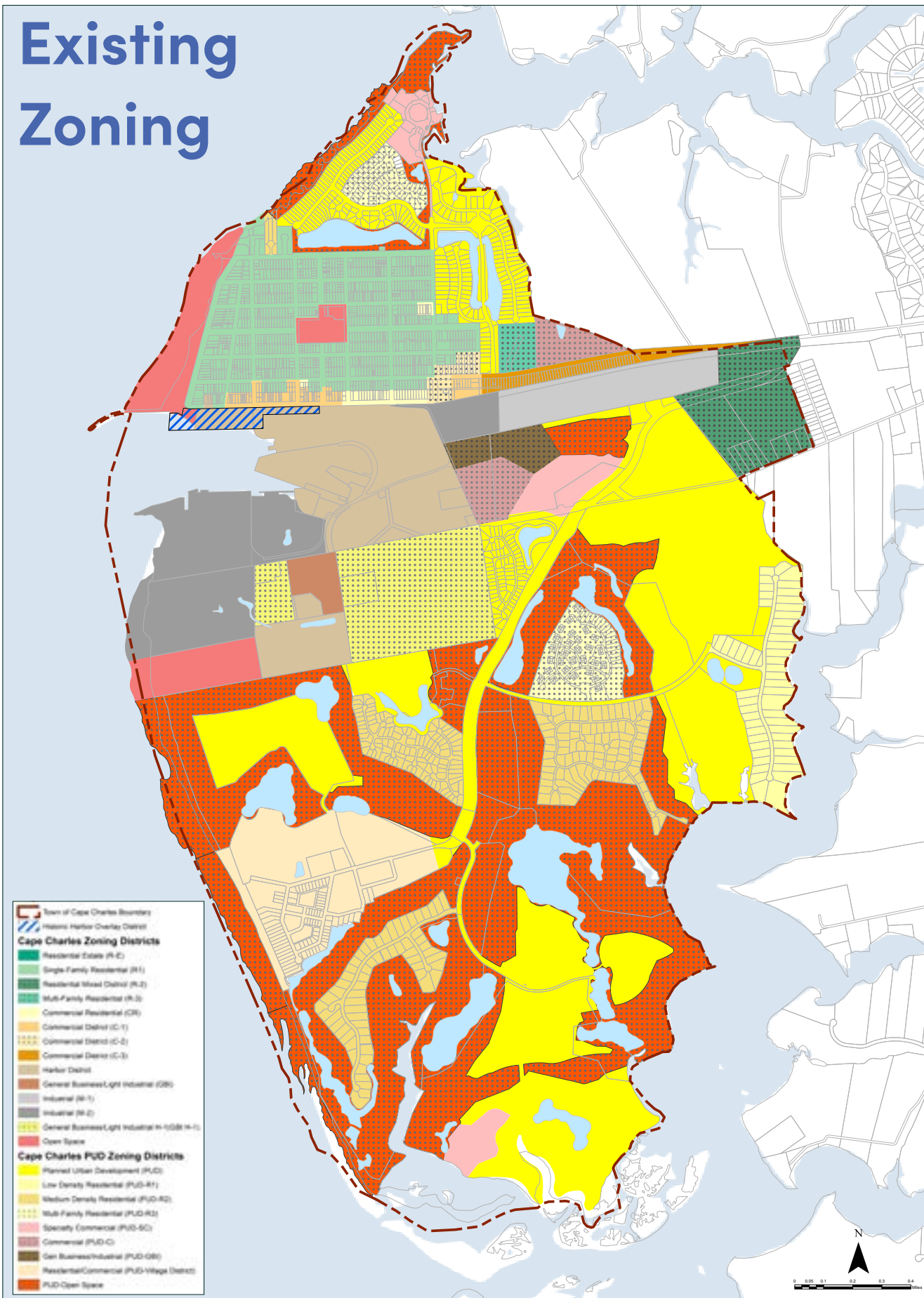


Maps

- Flood Map
- Wetlands
- Soils
- Existing Zoning
- Existing Land Use
- Existing Land Use (Historic District)







Existing Land Use (Historic District)





Town of Cape Charles Vision, Goals, Objectives & Strategies

July 12, 2022 | Comprehensive Plan

Introduction

The Draft Vision and its accompanying goals, objectives, and strategies are at the beginning of the Comprehensive Plan document. These words set the tone and direction of the plan and help with the organization for the rest of the plan’s chapters.

In 2019, the Town held a kick-off meeting for the Comprehensive Plan Update and distributed a survey for residents, workers, and visitors to provide their input on their priorities for the town. Survey responses and an analysis of existing conditions were used to inform goals, objectives, and strategies in several key areas.

Those areas were:

- Housing
- Economy
- Transportation
- Community Facilities & Services
- Environment
- Town Design
- Land Use

Public engagement has continued as part of the process; to include development of a routinely updated Community Strategic Plan, whose goals and objectives dovetail well with the core areas above and help create a plan that builds on the Town’s unified vision.

Each topic has a “goal statement” that describes what the Town should strive for in each area. The objectives and strategies are specific ways the Town should work to achieve each goal.

Implementation can be achieved through the annual Community Strategic Plan, whose shorter-term, more granular objectives, informed by the Comprehensive Plan, will set the Town’s annual priorities and workflow.

Vision Statement

“Preserve our historical, natural, and cultural resources, while fostering a sense of community that enhances well-being and prosperity, now and for generations to come.”

What is a vision statement?

The vision statement is a key piece of the comprehensive plan that sets the tone and direction of the plan, identifying high level aspirations for the Town to achieve. This should be a clear statement that speaks to multiple areas addressed through public input, backed by community consensus.

This vision statement was developed for the Town of Cape Charles Community Strategic Plan adopted in 2021. That Strategic Plan was developed as a prelude to and to inform the development of this Comprehensive Plan. Going forward, the Community Strategic Plan will add specificity to goals and objectives for Cape Charles.

Why these words?

These sentences encapsulate the community’s future vision of Cape Charles that builds on the town’s reputation as a vibrant, community-centered place.

Residents have emphasized the importance of not only maintaining, but improving upon the amenities that define the character of Cape Charles. Well-maintained, visually attractive historic, natural, and cultural resources that support the local economy will continue to be the backbone of the town. It is critical that present actions are oriented toward providing the same, if not better, quality of life for future generations.

Housing

“Pursue land use, zoning, and housing policies to meet and maintain the housing needs of all Cape Charles residents and support a strong local workforce, while preserving local character.”

Objectives and Strategies:

- 1. Pursue appropriate additional supply and diversity of housing, including smaller single-family homes, duplexes, townhomes, and condos to increase the availability of affordable housing.
 - a. Assess potential incentives for mixed-income housing development.
 - b. Consider the benefits of enacting a mandatory Workforce Housing Unit ordinance, as authorized by Virginia Code § 15.2-2305, as well as other strategies implemented by peer localities.
- 2. Review Zoning Ordinance to identify barriers to the development of mixed-income housing, as well as housing that is naturally more affordable.
 - a. Assess opportunities to increase density in the Historic District while maintaining the architectural character of the area.
 - b. Identify opportunities to decrease parking minimums and/or setbacks in certain zoning districts to increase the amount of developable land on each parcel.
 - c. Assess the findings in the report ‘Overcoming Land Use Ordinance Barriers to Housing Development’ in Northampton County including Town of Cape Charles (published May 27, 2022)
- 3. Use findings from Eastern Shore of Virginia Regional Housing Study (published March 2022) to inform future land use and housing policy.
 - a. Conduct a public awareness campaign.
 - b. Preserve existing and promote the development of new housing of diverse types.
 - c. Consider other recommendations from Regional Housing Study.
- 4. Encourage development of affordable workforce housing.
 - a. Amend Zoning Ordinance to permit greater density where appropriate.
 - b. Identify and promote Town-owned sites for housing development.
 - c. Engage local businesses about the housing needs of their employees and distribute said information to County and Regional Housing officials. .
- 5. Participate in housing financing programs.
 - a. Participate in programming, loan, and grant initiatives that support affordable housing, such as Tax-Exempt Bond Financing, the Housing Choice Voucher Program, and the Low-Income Housing Tax Credit Program.
 - b. Disseminate housing assistance information focused on available financing for housing rehabilitation (i.e. Livable Home Tax Credits through DHCD, Rehabilitation Tax Credits through USDA); provide and promote these programs with targeted marketing materials on the Town website and in the offices of the Planning & Zoning and Building Departments.

6. In accordance with the Code of Virginia Sec 15.2-2223.5, ensure that manufactured homes remain a source of affordable housing by preserving existing manufactured housing communities or providing for the creation of new manufactured home communities.

7. Address the short-term rental (STR) impacts on existing housing stock concurrently with an objective and strategy listed in the economy section.

a. Strategy here

Community Facilities & Services

“Create vibrant community facilities through flexible use, attractive aesthetics, and year-round programming for individuals of different ages and interests. ”

Objectives and Strategies:

- 1. Maintain and enhance existing access to beachfront.
 - a. Seek opportunities to improve amenities, including access points, shelters, and restrooms.
 - b. Explore aesthetic improvements consistent with Cape Charles branding.
- 2. Maintain and enhance Central Park, so it can be used for active and passive recreation throughout the year by residents and visitors of all ages.
 - a. Pursue opportunities to for art, public events, markets, etc.
 - b. Create a community calendar of events for Central Park and other public spaces with opportunities for residents to organize events.
- 3. Maintain and enhance green infrastructure on town-owned land.
- 4. Facilitate activities related to the water at the beach and at the harbor.
- 6. Explore the implementation of “playscapes” in all park facilities to allow for adventure play, rather than consolidated play structures. Utilize the natural landscape for play and to expand the ages that will use the co-located facilities.
- 7. Pursue adequate lighting and other amenities (seating, trash receptacles, water fountains, signage, etc.) for Town designated facilities.
- 8. Plan for the creation of modernized, accessible, and welcoming municipal facilities.
- 9. Plan for the creation of a multi-use recreation field.
- 10. Ensure efficient, cost-effective management, maintenance, and operation of water and sewer utilities, in conformance with all regulatory requirements.

Economy

“Promote a lively economy built around accommodations, food service, health care, social services, education services, retail trade, recreation, public administration, manufacturing, and transportation.”

Objectives and Strategies:

- 1. Seek a healthy balance between year-round residents, tourists, and second homeowners in Cape Charles.
 - a. Collaborate with Eastern Shore of Virginia Tourism, Cape Charles Main Street, and others to promote Cape Charles as a destination.
 - b. Work with other Eastern Shore localities to develop shared strategies for tourist attraction.
 - c. Strengthen and promote available broadband service to increase viability of Cape Charles as a destination for telecommuters and increase broadband hotspot offerings at areas including the Cape Charles Beach, Central Park, and the harbor area. .
 - d. Develop and promote events, such as those in outdoor recreation, to attract tourists.
 - e. Develop short-term rental (STR) regulations to help protect the quality of life for year-round residents.
- 2. Attract families with children to Cape Charles.
 - a. Support Northampton County administration and School Board efforts to strengthen local schools.
 - b. Pursue the construction of new playgrounds and recreational facilities in the town.
 - c. Collaborate with local organizations to increase the amount of youth programming.
 - d. Provide opportunities for organizations and community members to plan and host events on town facilities, the public right-of-way, etc.
 - e. Promote the development of year-round, family-supporting jobs in appropriate areas.
- 3. Provide opportunities for households to strengthen their economic wellbeing.
 - a. Collaborate with local and regional partners to develop workforce development programs with connections to local industries.
 - b. Partner with colleges and universities, in collaboration with the Northampton County Board of Supervisors, the School Board, and the Eastern Shore Community College, to develop educational opportunities for residents.
 - c. Partner with public/private entities to promote workforce housing development.

4. Promote the development of new businesses.
 - a. Promote a healthy balance of light industrial and commercial activity around the harbor.
 - b. Engage professional planning and economic consultants to develop concept plans for the Harbor area and railroad property, as well as associated design guidelines for the Harbor area that complement the Historic District.
5. Promote diverse economic benefits for the Harbor area.
 - a. Integrate the area with existing bike and pedestrian networks.
 - b. Promote best management practices for stormwater management and flood protection.
 - c. Provide high-quality public spaces and active street frontages.
6. Preserve and expand the local manufacturing base to ensure diverse employment opportunities.
 - a. Collaborate with existing companies to explore opportunities for community events and/or projects that raise the profile of company benefits to the community.
7. Promote traditional water-based economic activities.
 - a. Engage with local watermen to explore ways the Town can support their businesses.
 - b. Engage with waterfront property owners around the harbor to explore ways the Town can support their businesses.
 - c. Study potential municipal barriers to entrepreneurial efforts in or around the harbor area (i.e. local seafood market).
8. Study “chains of activity” in Cape Charles to identify any gaps in combinations of how someone can spend their day.
 - a. Study these chains during all seasons of the year.
 - b. Identify strategies to enhance local economy during winter season.
 - c. Attract businesses to fill gaps in chains of activity.
9. Identify **placemaking** opportunities to test temporary events, installations, or other features that attract people to the area and encourage them to spend longer periods of time, particularly during the off-season, to promote Cape Charles as a vibrant community.
10. Update the Accawmacke Plantation Planned Unit Development (PUD) Ordinance that governs the Bay Creek Development to be consistent with the goals and objectives of the Comprehensive Plan.

Transportation

“Create a transportation network that allows residents and visitors to access town amenities by various modes of transportation that support the historic character of Cape Charles.”

Objectives and Strategies:

1. Reduce traffic congestion by reducing local vehicle miles travelled (VMT) by automobile.
Coordinate with Land Use objectives and strategies.
 - a. Plan and implement comfortable, accessible, and convenient multimodal transportation options.
 - b. Prioritize increasing the amount of people walking and bicycling in town.
 - c. Inventory bicycle parking available within the town to ensure that all areas of the town have good access to bicycle parking.
 - d. Utilize “ad campaign” style communications about the benefits of prioritizing walking and bicycling in town.
 - e. Promote golf cart use in appropriate areas.
2. Strive to connect sidewalks and make pedestrians feel safe, especially in the Historic District.
 - a. Provide sidewalks on all urban streets with clear paths (unobstructed by trees, bushes, street lights, etc.) that are at least 5’ wide.
 - b. Replace curb-cuts with “continuous sidewalks” that require cars to drive up a slight incline when entering parking lots.
 - c. Clearly mark pedestrian crossings.
 - d. Use minimal curb radii and/or curb extensions to minimize crossing distances for pedestrians.
3. Implement street designs that encourage slow speeds to allow motorists, cyclists, etc. to safely share streets.
 - a. Utilize narrow travel lanes and/or traffic calming features (vegetated medians, curb extensions, etc.) to promote travel speeds under 20 MPH in key residential and pedestrian-oriented areas.
 - b. Designate shared use routes that are most appropriate for bicyclists and golf carts with clear signage and educational materials for visitors.
 - c. Conduct study of Mason Ave investigating design alternatives that allow bicycles, cars, and golf carts to effectively share the road while improving natural elements.
 - d. Conduct study of Peach St to develop design alternatives.

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4. Increase the availability of parking while maintaining character.
 - a. Review benefits of providing clearly marked parking spaces on Bay Avenue.
 - b. Expand the existing parking facility south of the Mason Ave corridor to mitigate the impacts of parking on walkability in the area.

 5. Identify ownership and alignment of all of the alleys and access easements in town to ensure accuracy and that maintenance is performed by rightful owner.
 - a. Create plan to clearly identify ownership of all alleys and inform owners of their maintenance responsibilities.
 - b. Determine if existing alignments are correct.
 - c. Determine if additional alleys are needed, or if existing alleys need to be moved, especially behind commercial buildings, and develop a plan to enhance access.

 6. Collaborate with the Accomack-Northampton Transportation District Commission to promote accessible and affordable public transit in Cape Charles and throughout the region.
 - a. Collaborate with STAR Transit to pursue convenient, safe, and frequent bus service to key commercial, residential, and recreational destinations.

 7. Complete the construction of the **multi-use** path connecting the Historic District, the harbor area, and the Bay Creek development.
 - a. Make future improvements to the path, including resting areas and bicycle/golf cart parking.

 8. Integrate the Harbor area with existing bike and pedestrian networks.

 9. Support the Rails to Trails project connecting Cape Charles to the Route 13 multi-use path.

Town Design

“Use design elements that engage pedestrians and represent the history of Cape Charles. Promote visually appealing and highly functional corridors that draw the attention of passers-by.”

Objectives and Strategies:

1. Promote the historic character of streets in Cape Charles.
 - a. Install human-scale street lighting, starting with streets with no lighting, followed by the replacement of existing lights. Utilize a design that highlights the Town’s history, while limiting upward light pollution.
 - b. Pursue opportunities for public art installations.
 - c. Add native trees and shrubs to sidewalk buffers that only have grass.
 - d. Limit setbacks for new developments to encourage buildings that “address the street.”

2. Leverage vacant and/or underutilized corner lots to “tie streets together.”
 - a. Implement mixed-use zoning for historic distric to allow for the development of businesses that can serve as gathering places for the community, while maintaining the character of streets.

3. Create guidelines for creating shade, wind protection, and shelter from rain through the design of buildings and building features.

4. Utilize placemaking strategies to build many different activities and reasons to be at various locations throughout town.

5. Encourage new buildings to be constructed in a manner that is conducive to flexible use and adaptation over time.

6. Ensure that new developments comprised of many buildings are well connected and integrated with the existing fabric of the town.

7. Create design guidelines for storefronts that provide for transparency and accomodate large windows to provide for visual interest.

8. Create a program to assist business owners design and maintain quality storefronts.

9. Ensure that there are places to sit and stay, without necessarily purchasing anything.

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10. Utilize amenities, such as pleasant views, sunlight, or views of other people, to locate seating areas.
 11. Activate open spaces with opportunities for recreation and seating areas.
 12. Prevent long stretches of blank and uninteresting building facades.
 13. Study and cross reference “chains of activity” in the town with the eye-level details of transportation between these locations.
 14. Ensure that required landscaping is maintained from planting to maturity, replacing dead vegetation when necessary.
 15. Implement unified wayfind signage across the entire town at the pedestrian scale.
 16. Bury above-ground electrical and communication wires when appropriate and/or possible.

Environment

“Use policy and infrastructure to maintain and improve ecological resources and sustain an economy that relies on their wellbeing.”

Objectives and Strategies:

1. Enhance water quality of the Chesapeake Bay.
 - a. Intensify the monitoring of all measures of the bay’s health.
 - b. Limit the amount of impervious surfaces in town to slow stormwater and contaminant runoff.
 - c. Increase the amount of vegetation and other bioretention infrastructure to filter stormwater before it enters the bay.
2. Continue to promote the strong aesthetics of the town and limit pollution from litter.
 - a. Ensure easy access to refuse and recycling bins at town facilities and in public right-of-way.
 - b. Educate residents and visitors of best practices through signage and other materials as necessary.
 - c. Engage with seasonal vendors, such as food trucks, to ensure that they have adequate access to waste recepticals.
3. Utilize best practices, along with infrastructure improvements, to ensure high quality drinking water.
 - a. Encourage water conservation measures to ease the load on water treatment equipment.
 - b. Review water quality improvement initiatives from other localities to develop and identify which strategies may be effective in Cape Charles.
4. Maintain the beach and harbor to protect the long-term viability of their ecological services and economic benefits.
 - a. Control dune, beach, and shoreline erosion through regulation and best practices.
 - b. Enhance the beach as an amenity for residents and visitors.
 - c. Improve access to town harbor.
 - d. Preserve the integrity of and accessibility to the water’s edge.
5. Promote coastal resiliency through policy, development regulation, and enforcement.
 - a. Set new sustainability targets regarding materials, construction practices, etc.
 - b. Consider incentives to promote the use of sustainable development practices.
 - c. Continue active participation in the Resilience Adaptation Facility Tool (RAFT).

6. Protect natural resources, especially wetlands and other sensitive ecosystems.
 - a. **Prevent development in environmentally sensitive areas.**
 - b. Consider establishment of wetlands bank.
 - c. Conduct annual educational campaigns directed at coastal and creek tributary property owners regarding the Resource Protection Area and the Resource Management Area applicable to their properties. Provide information on best practices regarding landscaping: the maintenance of trees, shrubs, bushes, and other vegetation, as well as appropriate species and sizes to use for replacement, if necessary.
7. Working with the Town Wetlands and Coastal Dune Board, continue to implement Coastal Resources Management guidance from the Virginia Institute of Marine Science.
 - a. Refer to the guidance presented in the locality's Comprehensive Coastal Resource Management Portal (CCRMP) prepared by VIMS to guide regulation and policy decisions regarding shoreline erosion control.
 - b. Utilize VIMS Decision Trees for onsite review and subsequent selection of appropriate erosion control/shoreline best management practices:
<http://ccrm.vims.edu/decisiontree/index.html>.
 - c. Utilize VIMS' CCRMP Shoreline Best Management Practices for management recommendation for all tidal shorelines in the jurisdiction.
 - d. Consider a policy where the above Shoreline Best Management Practices become the recommended adaptation strategy for erosion control, and where a departure from these recommendations by an applicant wishing to alter the shoreline must be justified at a hearing of the board(s).
 - e. Encourage staff training on decision making tools developed by the Center for Coastal Resources Management at VIMS.
 - f. Follow the development of the state-wide General Permit being developed by VMRC. Ensure that local policies are consistent with the provisions of the permit.
 - g. Evaluate and consider a locality-wide permit to expedite shoreline applications that request actions consistent with the VIMS recommendation.
 - h. Seek public outreach opportunities to educate citizens and stakeholders on new shoreline management strategies including Living Shorelines.
 - i. Follow the development of integrated shoreline guidance under development by VMRC.
 - j. Evaluate and consider a locality-wide regulatory structure that encourages a more integrated approach to shoreline management.
 - k. Consider preserving available open spaces adjacent to marsh lands to allow for inland retreat of the marshes under rising sea level.
 - l. Evaluate and consider cost share opportunities for construction of living shorelines.

Land Use

“Implement land use patterns that support the development goals of the community, while maintaining the historic character of Cape Charles.”

Objectives and Strategies:

1. Preserve and enhance the integrity of the Historic District.
 - a. Implement Historic District zoning overlay to ensure new developments match the design and landscaping standards of historic structures.
 - b. Connect owners of historic structures to financial and administrative resources for maintenance, renovation, etc.
 - c. Create and implement design guidelines that promote desired architectural quality.
2. Promote compatible infill development and renovation within established neighborhoods.
 - a. Encourage further development of accessory dwelling units (ADUs) to help achieve the Town's housing goals.
 - b. **Identify undeveloped parcels and vacant structures, especially along key corridors, and incentive development that services both full-time residents and tourists.**
3. Allow additional flexibility for new development and established businesses.
 - a. Promote mixed-use development (both horizontal and vertical) to create areas for residents and visitors to live, work, and play through Zoning Ordinance updates.
 - b. Allow businesses to use parking spaces for outdoor seating and/or displays.
4. Review and update Zoning Ordinance and development standards to add flexibility while maintaining character.
 - a. Eliminate/reduce requirements for buffer yards and setbacks that increase the amount of distance between varying uses outside of the Historic District.
 - b. Eliminate/change floor area ratio (FAR) requirements to allow for more creative building designs in appropriate areas.
5. Study parking stock, reduce and reform development standards from parking minimums, encourage parking to be located in ways that do not inhibit pedestrian or bicycle access to land use.
 - a. Where feasible, provide additional space for parklets and/or widening sidewalks.
 - b. Evaluate the provisioning of specifically dedicated parking areas and/or limiting the on-street parking allowances for oversized vehicles, including RVs, boats, and trailers.
6. Ensure that zoning and future land use maps are aligned.
 - a. Develop and maintain GIS databases as a function of the Planning & Zoning Department to visualize town services and facilities (alleys, sidewalks, multi-use trails, and water and sewer facilities) and land use decisions (subdivisions, conditional use permits, variances, etc.).

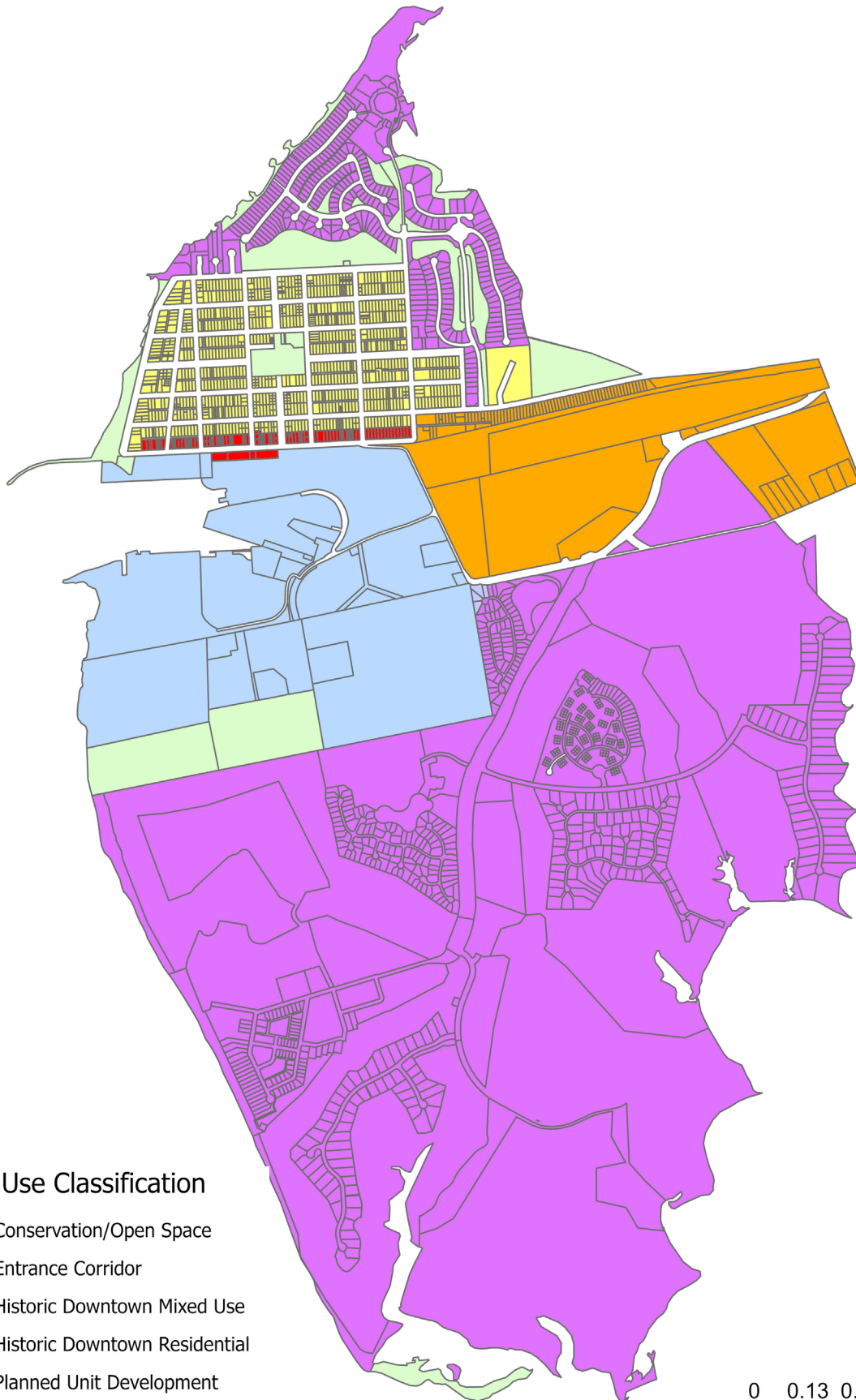
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7. Provide high-quality public spaces and active street frontages in the Harbor area.
 8. Preserve the integrity and accessibility of the water's edge.
 - a. Maintain public access to the water's edge, particularly at the Harbor and the Beach.
 - b. Program public spaces proximate to the water's edge with amenities such as seating, restrooms, and trash cans.
 9. Protect the viewsheds along Town entrance corridors.
 - a. Establish development guidelines for entrance corridors.
 10. Improve the entrance corridors into town, at both Route 184 and Route 642, with consistent signage and landscaping.
 11. Encourage support for landscape enhancements in and around Town.
 - a. Incentivize or otherwise support enhanced landscaping throughout the Town.
 - b. Develop a sustainable maintenance plan for all landscaping in public areas, especially adjacent to sidewalks and roadways and along newly established multi-use paths.
 12. Establish a clear line of responsibility (Town, property owners, VDOT, etc.) for landscaping maintenance along all sidewalks and roads from planting to maturity, ensuring replacement of dead vegetation when necessary.
 13. Engage professional planning and economic consultants to develop concept plans for the Harbor area and railroad property, as well as associated design guidelines for the Harbor area that complement the Historic District.

A photograph of a beach scene under a clear blue sky. In the foreground, the sand is covered in footprints. In the middle ground, a sculpture spells out the word 'LOVE' using various objects: a blue 'L', a black tire for the 'O', two red kayaks for the 'V', and a yellow structure for the 'E'. The background shows the ocean and some greenery.

Town of Cape Charles Future Land Use

July 12, 2022 | Comprehensive Plan

Future Land Use Classification



Land Use Classification

-  Conservation/Open Space
-  Entrance Corridor
-  Historic Downtown Mixed Use
-  Historic Downtown Residential
-  Planned Unit Development
-  Harbor District

0 0.13 0.25 0.5 Miles



Future Land Use Classification

Conservation/Open Space: These areas are intended for the conservation of natural resources and protection of open space. These areas include parks, recreational areas, and agricultural land.

Entrance Corridor: The Entrance Corridor is intended for the development of commercial uses with appealing visual aesthetics, quality architecture, high quality landscaping, and support for walkability that enhance the character and first impressions of the Town.

Historic Downtown Mixed Use: The Historic Downtown Mixed Use category covers part of the existing downtown historic area of Cape Charles along Mason Avenue. Development in this area is intended to reflect the diversity of historic architectural features present in the Town and incorporate the diversity of uses that bring Main Street to life.

This plan allows for more flexible use of historic properties across the district. Rehabilitation of existing historic buildings and infill development should comply with Historic District guidelines with particular attention to how the buildings address the streetscape.

Buildings should be between two and four stories with minimal (if any) setbacks and ground floor uses that engage pedestrians with visually appealing facades.

Historic Downtown Residential: The Historic Downtown Residential category covers the majority of the original street grid in Cape Charles. Any new development in this area is intended to reflect the historic character of the core residential area and match the key design features of existing structures.

This plan recognizes that some historic homes have been converted into lodging and other uses. As such, the plan provides guidelines to allow flexibility in use while maintaining the character of the area and quality of life for residents.

Planned Unit Development: The Planned Unit Development surrounding the historic area of Cape Charles is intended to develop according to its original vision, dovetailed with the Town's efforts to encourage quality architecture and design.

Harbor District: Further master planning will be conducted to create a strong vision for the Harbor District. The area is intended to develop in a way that mirrors the success of Mason Avenue and nearby historic residential blocks. The district could include structures between two and six stories with a mix of uses on an extension of the highly walkable street grid.

The design should emulate the Historic District guidelines with particular attention to how buildings address the streetscape and the harbor front to create a lively and attractive extension of historic Cape Charles.