



TOWN COUNCIL
Work Session
March 31, 2022
Cape Charles Civic Center
6:30 PM

1. Call to Order
 - A. Roll Call
 - B. Establish quorum

2. Items for Discussion:
 - A. [Town Offices Space Needs Study Presentation](#)

 - B. [FY 2023 Proposed Capital Improvement Plan](#)

 - C. Strategic Revenue Plan

3. Adjournment

Town Facilities Needs/Deficiencies Study

Analysis of Alternatives

March 31, 2022



Analysis of Alternatives

- Covers Administrative, Police, Legislative, and Library functions
- Space needs assessment
- Existing facilities and potential building site assessment
- Space allocation options
- Recommended options
- Next steps

Space Needs Assessment

- Input from Department Heads
- Considered internal synergy and improved public service
- Shared work-spaces: Finance, Building, Planning & Zoning, Police
- Centralized files and group meeting space
- Some room for growth
- Judged reasonable by HBA consultant
- Additional efficiencies will be pursued during design phase

Space Needs Assessment

<u>Administrative</u>	<u>Square Feet</u>
Administration – Manager, Asst., Project Mgr.	434
Clerk – Clerk, Asst., Central Files, Storage	563
Archive Storage	450
Finance – Treasurer, Staff (4), Storage	859
Human Resources – Manager, Intern	243
Building – Code Official, Staff (2), Plans & Storage	845
Planning & Zoning – Planner, Staff (2), Storage	645
Meeting Room/Break Room w/Kitchenette	480
Restrooms (4)	<u>256</u>
Subtotal	4,775

Space Needs Assessment

<u>Police</u>	<u>Square Feet</u>
Chief, Staff (7), Evidence, Armory, Shower, Restroom, Kitchenette	1,487
Garage	<u>1,500</u>
Subtotal	2,987
 <u>Council Chambers</u>	
Meeting Room, Storage, Kitchenette, Restrooms (2)	1,520
 <u>Library</u>	
Collection, Office, Meeting/Programs Room Computer Lab, Restrooms (2)	2,948
 <u>Grand Total</u>	<u>12,230</u>
Adjusted by 0.767 efficiency ratio (walls, hallways, etc.)	15,945

Facilities and Building Site Assessment

Size of existing facilities (square feet):

Municipal Building – first floor	2,925
second floor	2,925
Library Building – first floor & rear mezzanine	2,800
third floor & front mezzanine	2,760
Civic Center Building	<u>1,378</u>
Total	12,788

Facilities and Building Site Assessment

- Inadequate space to properly accommodate all functions; about 3,100 square feet short
- Condition assessment of existing facilities
 - *Structurally sound*
 - *Safety and compliance concerns*
 - *Requires extensive renovation, including new systems*
 - *Expansion limited due to site constraints*
 - *Need elevators at both Municipal and Library buildings*
- Impractical to accommodate all needs within existing facilities
- Suggests building a separate police station at a minimum

Facilities and Building Site Assessment

- Building site of about 2.1 acres is available on Cassatt Parkway
 - *Lot subdivided from Parcel 14; near Rosenwald School*
 - *Central location with good access*
 - *Close to existing water and sewer service*
- Building site condition assessment
 - *Close to former dump but only minor debris on site*
 - *No contamination*
 - *Outside Chesapeake Bay Resource Protection Area*
 - *Small area of non-tidal wetlands*

Space Allocation Options

Considerations

- Relative cost
 - *Renovation is less expensive than new construction with site development*
 - *Renovation of Municipal building is less expensive than Library building due to type of construction and need for a three-story elevator at the latter*
- Synergy created by collocating certain functions
- Space available at the three existing facilities
- Space available at the potential building site
- Potential for divestiture of property to generate revenue

Four initial options tested

Space Allocation Options

Option 1 – Renovate Municipal Building; and construct a new building on Cassatt Parkway

- All administrative functions can fit in the Municipal Building
- Police, Council Chambers, and Archives in new building; 7,100 square feet - one level
- Library remains at current location and current size
- Divestitures
 - *Civic Center Building*
 - *Library Building; lease/buy back Library space*
 - *Two lots on Randolph behind Library Building*

Space Allocation Options

Option 2 – Renovate Municipal and Civic Center buildings; construct new building on Cassatt Parkway

- Library moved to first floor of Municipal Building, but would be constrained to current size
- All administrative functions will not fit on the second floor of the Municipal and Civic Center buildings alone; would need to move some functions to new building
- Police, Council Chambers, Archives, and TBD administrative functions in new building; 8400 square feet - Might need to add second floor
- Divestitures
 - *Library Building*
 - *Two lots on Randolph behind Library Building*

Space Allocation Options

Option 3 – Renovate Civic Center Building; construct new building on Cassatt Parkway

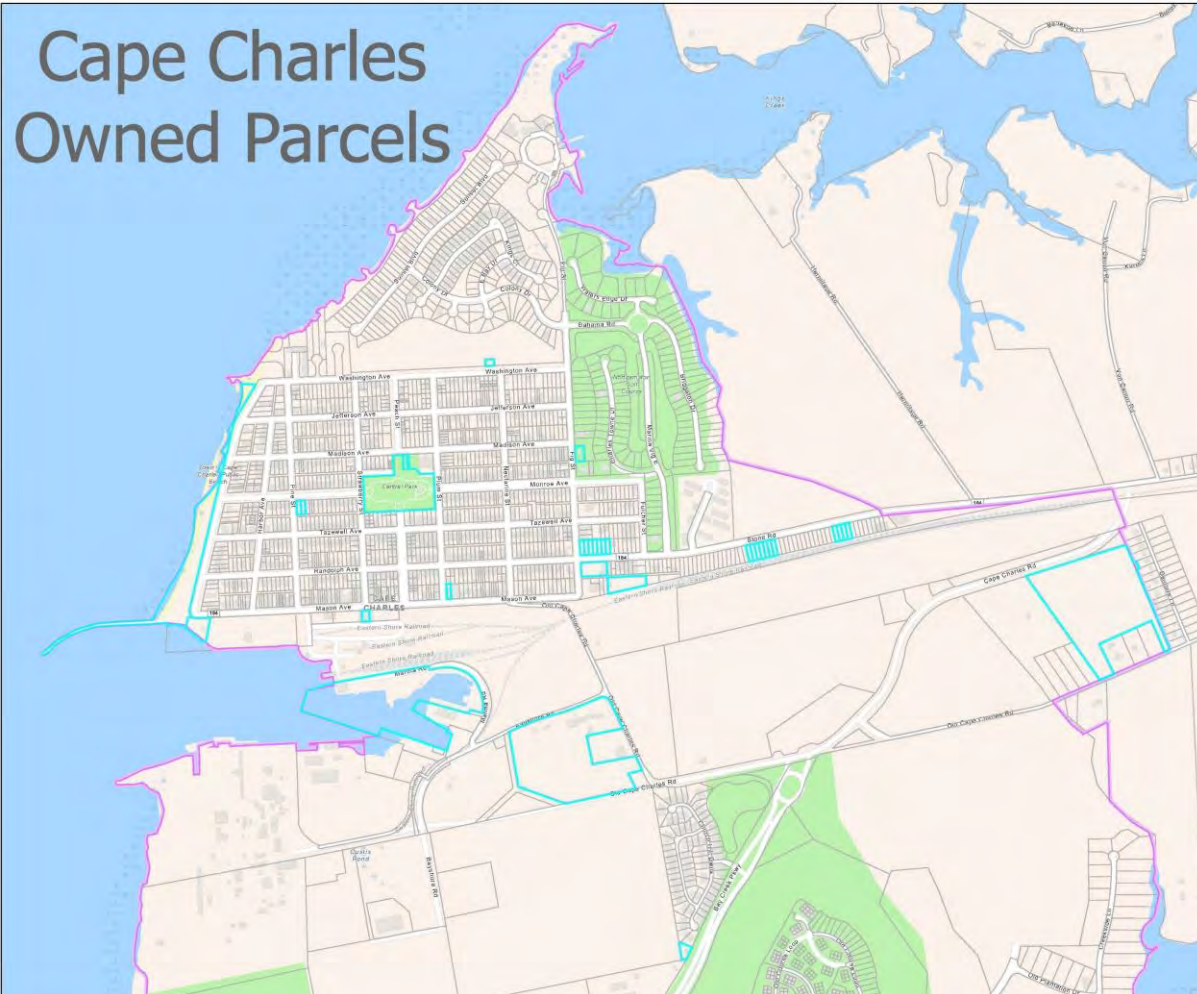
- Council Chambers remain at Civic Center though constrained to existing size; about 500 square feet short
- All Administrative, Library, and Police functions located at the new building; Two floors - 16,650 square feet
- Divestitures
 - *Municipal Building*
 - *Library Building*
 - *Two lots on Randolph behind Library Building*

Space Allocation Options

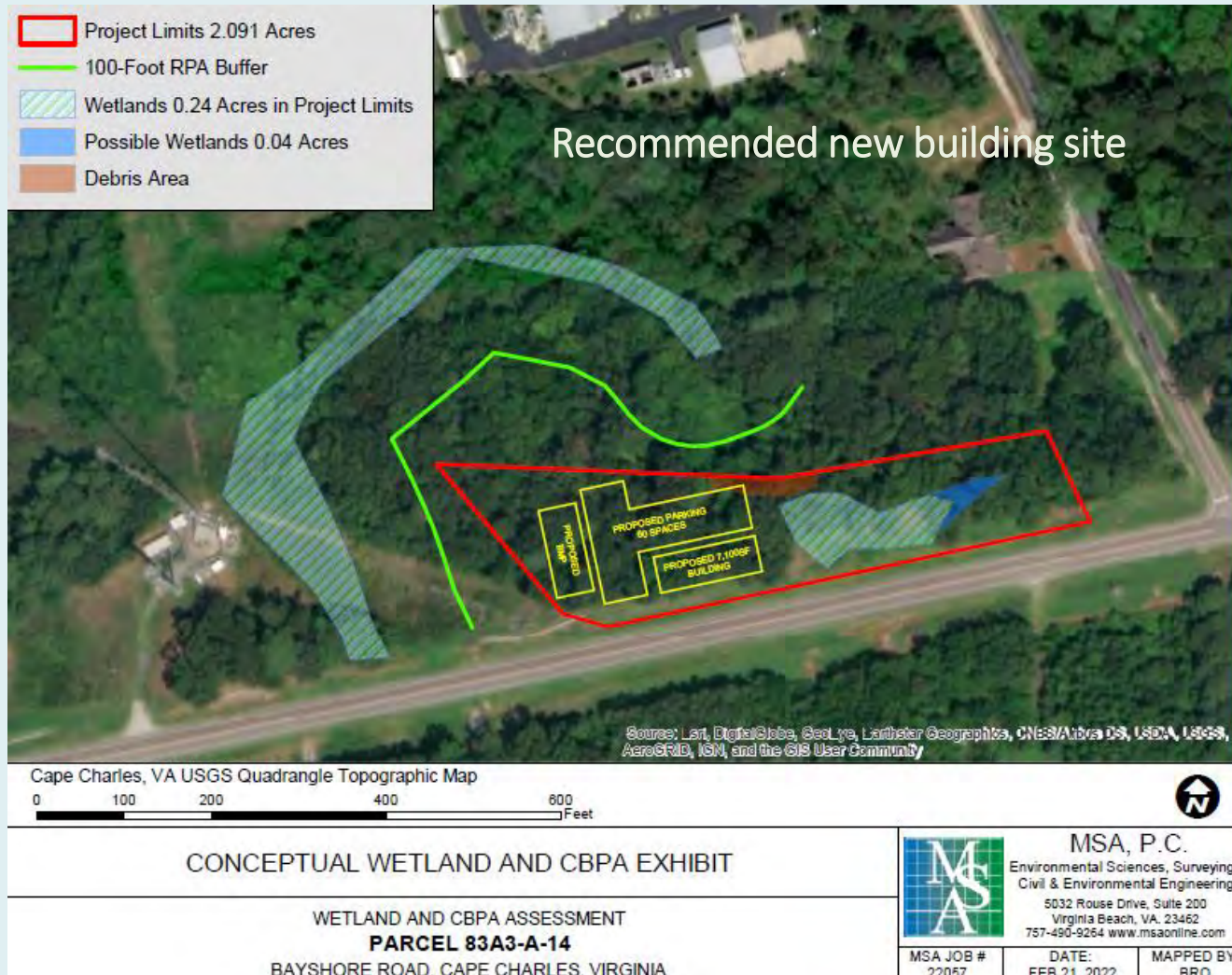
Option 4 – Renovate Library and Civic Center buildings; construct new building on Cassatt Parkway

- Library remains at current location and current size
- All administrative functions will not fit on the third floor/front mezzanine of Library Building and at the Civic Center alone; would need to move some functions to new building
- Police, Council Chambers, Archives, and TBD administrative functions in new building; 8600 square feet - Would need to add second floor
- Divestiture
 - *Municipal Building*

Space Allocation Options



Space Allocation Options



Recommended Option

- Staff recommends Option 1
- Collocates all Administrative functions – maximum synergy
- Cost efficient renovation and can be phased
- Central location for Police and Council Chambers
- Increases space available for public meetings
- Library remains a unique feature in the heart of town
- Retains Library while reducing ownership burden for the building
- Likely maximum revenue from divestitures – Library Building (excluding first floor), lots on Randolph, Civic Center Building

Next Steps

- Develop initial cost estimates for selected renovation and new construction option(s)
- Develop revenue estimates for property to be divested
- Incorporate estimates into CAMP and FY 2023 budget
- Amend HBA contract to commence design and engineering phase, including updated cost estimates



ARCHITECTURE
INTERIOR DESIGN

Space Allocation Options

Town of Cape Charles Office Space



HBA Project No. 21074

March 11, 2022



Space Allocation Options Summary

Project: Town of Capes Charles Office Spacy Study

Project No.: 21074

Date: March 11, 2022

By: David Smith, AIA

The following pages provide four options for distributing the spaces needed by the Town of Cape Charles for government offices, the library, and the police department among different combinations of the following buildings:

- Existing Town Hall
- Existing Library
- Existing Civic Center
- Proposed New Building

This analysis is based upon the Space Needs Assessment previously prepare by HBA, dated January 21, 2022

SPACE ALLOCATION OPTIONS SUMMARY

Option 1 - Town Hall + New Building

Town Hall: Administration
Clerk - except for Council Chambers and Archives
Finance
Human Resources
Library
Building
Planning and Zoning

New Building: Police Department
Council Chambers
Archives

(Library remains in existing location)

Option 2 - Town Hall + Civic Center + New Building

Town Hall: Administration
Clerk - except for Council Chambers and Archives
Finance
Human Resources
Library

Civic Center: Building
Planning and Zoning

New Building: Police Department
Council Chambers
Archives

Option 3 - Civic Center + New Building

New Building: Administration
Clerk - except for Council Chambers
Building
Planning and Zoning
Finance
Human Resources
Library
Police Department

Civic Center: Council Chambers

Option 4 - Library + Civic Center + New Building

Library: Administration
Clerk - except for Council Chambers
Finance
Human Resources
Library

Civic Center: Building
Planning and Zoning

New Building: Police Department
Council Chambers

TOWN OF CAPE CHARLES
OFFICE SPACE ALLOCATION - **OPTION 1**



TOWN HALL	
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Room Data									Casework and Furniture		Remarks
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E	

SECOND FLOOR	
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ADMINISTRATION

Town Manager	230		1	230	1	10 H/D; 5 D/W	Special Assistant; Copier	Enclosed (Sound Proof)	-	Desk w/ task chair; (4) guest chairs; (1) collab table; (1) couch; (2) filing cabinets; (1) bookshelf; (1) ref.	-
Special Assistant	64		1	64	1	8-10 H/D; 5 D/W	Town Manager; Clerk; Copier	Open Workstation	Countertop with base cabinets	Desk w/ task chair; (2) filing cabinets	-
Project Manager	140		1	140	1-4	4 H/D; 5 D/W	Town Manager; Treasurer	Enclosed	-	Desk w/ task chair; (2) guest chairs; (1) filing cabinet; (1) 48" bookshelf	Additional storage for plans; Small meetings to take place in room
Subtotal				434							

CLERK

Town Clerk	195		1	195	1-4	8-10 H/D; 5 D/W	Council Chambers; Small meeting room, File room, archive storage	Enclosed	Wall Cabinet 1-2 - 6' total	U-shaped desk w/ task chair, (2) guest chairs; (2) lateral files; (2) 7'H Bookshelves; (3) 3'W storage cabinets	Small meetings to take place within room
Future Assistant	48		1	48	1		Town Clerk	Open Workstation	-	Desk w/ task chair	Can be located in entry way leading to Clerk's office
File Room	200		1	200	1	Daily use	Archive storage; Clerk's Office	Enclosed (Preferably)	-	(1) small table; (1) chair; (6) lateral files; (4-6) 7'H bookshelves	-
Storage Room	120		1	120	-	-	-	Enclosed	-	-	Meeting, A/V equipment, and catering supplies
Subtotal				563							

FINANCE											
Treasurer	195		1	195	1-4	8 H/D; 5 D/W	Finance staff; payroll; and near by planning, building, & clerk	Enclosed	-	L-Shaped desk w/ task chair; (2) guest chairs; (1) small collab table; (2-3) filing cabinets; (1) 30"W bookshelf; (1) 15"W printer stand	can share space with entire department in large area if a shared meeting room w/ a computer is nearby
Accounting Manager, Accountant, Accounting Analyst/AP, Utility Clerk/AR)	600		1	600	4	9 H/D; 5 D/W	Treasurer; Planning/Building; small meeting room with computer for public to research	Open Workstations	96" countertop with base cabinets (to allow for (2) staff to help customers & staff to sort notices & bills); (2) wall shelves, total of 90" LF	Utility - (2) filing cabinets; (1) collab table for all; (1) L-Shaped desk w/ task chair Accounting - (3) filing cabinets; (3) L-Shaped desks w/ task chairs; (1) copier; (2) bookshelves ((1) with height, (1) with width) Additional Notes - (1) desk from above to be at countertop with protective glass to help customers; Copier can be used by other departments but needs to be kept close to accountants	Ideally all finance & utility billing will be in one room Additional Notes - heated/cooled; overhead & task lighting; phone & data (extra data lines for credit card machines); Intrusion Detection (security camera & monitors)
Storage Room	64		1	64	1-4	Various hours; 5 D/W	Finance shared office	Enclosed	-	Shelving to store billing paper, storage boxes, calculator ribbons, files, folders, envelopes, etc. Shelving to store files by year - current, upcoming, and prior year information	Would like to keep items stored separately from other departments; access these files regularly so easy access is necessary
Subtotal				859							
HUMAN RESOURCES											
HR Manager	195		1	195	1-4	8 H/D; 5 D/W	Treasurer; Town Manager	Enclosed	Countertop with base cabinets (5' LF)	(1) 5'H Bookshelf; Desk w/ task chair; (2) guest chairs; (1) couch (optional); (1) large filing cabinet	Accessible to employees and welcoming; lots of light; needs to be private for interviews and confidential meetings; space for small groups to meet
Intern	48		1	48	1	-	HR; Town Manager	Open Workstation	-	(1) desk w/ task chair	-
Subtotal				243							
SUPPORT SPACES											
Restrooms	64		2	128	1	8 H/D; 5 D/W	-	Enclosed	-	-	Two single user restrooms
Subtotal				128							

Total Programmed Area for Second Floor	2,227
Efficiency Ratio	0.8
Non-Assignable Area	557
TOTAL	2,784
AVAILABLE AREA	2,925

141 FITS

FIRST FLOOR											
CLERK											
Small Meeting Room	380		1	380	18	As Needed	-	Enclosed	-	Conference table with 18 chairs	Room to be used for Council closed sessions, manager, and department meetings.
Kitchenette	100		1	100	-	-	-	Enclosed	-	Countertop and wall cabinets	Coffee pot, Refrigerator, Microwave
Subtotal				480							
BUILDING DEPARTMENT											
Code Official	195		1	195	1	8 H/D; 5 D/W	Permit office / Zoning; Permit Tech; Other Inspectors	Enclosed	-	(1) desk w/ task chair; (2) guest chairs; (1) collab table for plans; (1) filing cabinet	-
Permit Assistant	400		1	400	2	8 H/D; 5 D/W	Code official; Zoning; Inspector	Open workstation with tall panel partitions for separation from future building inspector	12' countertop with base cabinets; (3) built in 4'x9' bookshelves	(1) desk w/ task chair; (2) guest chairs; (1) collab table for plans; (4) filing cabinets	General public will also occupy the space at times; Waiting/Seating area needed for general public
Future Building Inspector	0		1	0	1	8 H/D; 5 D/W	Code official; Zoning	Open workstation with tall panel partitions for separation from permit assistant	-	(1) desk w/ task chair; (1) guest chair; (1) collab table for plans	To share office with Permit Assistant
Plan Room / Storage Room	250		1	250	1	Various times of day/week	Code Official; Permit Assistant;	Enclosed	-	(2) filing cabinets; Plan racks, built in or moveable, enough to hold 200 sets of plans; 5'x5'x5' archive file cabinets	-
Subtotal				845							

PLANNING AND ZONING											
Planner	195		1	195	1	8 H/D; 5 D/W	Other Planning Staff; Building	Enclosed	-	(1) 2.5'W (min) bookshelf; (1) desk w/ task chair; (2) guest chairs; (1) 2'x4' collab table; (1) Rolling cart for maps and plans	Needs access to copier & plotter - can be centrally located
Zoning Administrator & Planner 1	200		1	200	2	8 H/D; 5 D/W	Director of Department & Technician	Enclosed	-	(2) desks w/ task chairs; (2) guest chairs; (1) 6' collab table; (2) filing cabinets w/ 4 drawers; (1) 4'W (min) bookshelf	-
Planning / Zoning Technician	150		1	150	2	8 H/D; 5 D/W	Planning/Zoning Director; Admin; Building	Open Workstation	Countertop with base cabinets	(2) desks w/ task chairs; (2) guest chairs; (2) 4-drawer vertical filing cabinets	-
Storage Room	100		1	100	-	-	Planning/Zoning; Building	Enclosed	-	Storage shelves for records, files and building plans	Central storage, shared with Building, where property records/files and building plans are maintained; currently, existing building has a large flat map storage drawer
Subtotal				645							
SUPPORT SPACES											
Restrooms	64		2	128	1	8 H/D; 5 D/W	-	Enclosed	-	-	Two single user restrooms
Subtotal				128							

Total Programmed Area for First Floor	2,098
Efficiency Ratio	0.8
Non-Assignable Area	525
TOTAL	2,623
AVAILABLE AREA	2,925

303 FITS

TOWN OF CAPE CHARLES OFFICE SPACE ALLOCATION - **OPTION 1**



NEW BUILDING	
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									Casework and Furniture		Remarks	
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E		
POLICE												
Chief	195		1	195	1	10 H/D; 5 D/W	Other Officers; Evidence; Wash Storage	Enclosed	6' wall cabinets	(1) desk w/ task chair; (2) guest chairs; (1) collab table; (5) filing cabinets	-	
Lieutenant + Sergeant	300		1	300	2	24/7	Entire Police Department	Enclosed with (2) open workstations	6' wall cabinets	(2) desks w/ task chairs; (2) guest chairs; (1) collab table; (4) filing cabinets	Shared office	
All Officers	600		1	600	10	24/7	Entire Police Department	Enclosed with (5) open workstations	15' wall cabinets	(5) desks w/ task chairs; (5) guest chairs; (2) collab tables; (1) couch; (5) filing cabinets	Shared office	
Evidence Room	100		1	100	1	N/A	Chiefs Office	Enclosed	8' countertop with base cabinets; 8' wall cabinets	(4) filing cabinets	-	
Armory	100		1	100	7	N/A	Entire Police Department; Evidence	Enclosed	8' countertop with base cabinets; 8' wall cabinets	-	-	
Restroom with Shower	80		1	80			Entire Police Department	Enclosed	4' countertop with base cabinets; 2' wall cabinets	-	-	
Restroom	48		1	48			Entire Police Department	Enclosed	-	-	-	
Kitchen	64		1	64	-	-	-	-	6' countertop with base cabinets; 6' wall cabinets	-	-	
Storage Garage (For Entire Department)	1,500		1	1500	-	-	-	-	-	-	To hold 25' boat with T-Top (30') with trailer; (2) spare cars; (1) utility trailer; (1) ATV; (1) Radar/Message Board Trailer; at least (3) bay doors	
Subtotal				2987								

COUNCIL CHAMBERS											
Council Chambers	1,300		1	1300	100	-	Clerk's Office	Enclosed	-	(100) Chairs; (1) large table; (9) chairs around Council Dais	Additional lighting over dais Camera, mic, and projector screen
Storage Room	120		1	120	-	-	Council Chambers	Enclosed	-	-	Meeting, A/V equipment, and catering supplies
Kitchenette	100		1	100	-	-	Council Chambers	Enclosed	-	Countertop and wall cabinets	Coffee pot, Refrigerator, Microwave to support Council Chambers
Restrooms	64		2	128	1	-	-	Enclosed	-	-	Two single user restrooms
Subtotal				1520							
ADMINISTRATION											
Archive Storage	450		1	450	1	Daily use	Clerk's Office; Archive Room	Enclosed	-	(1) table; (1) chair; (6-8) lateral files; (16) 7'H Bookshelves	Archive room currently takes up the entire 2nd floor front mezzanine area of the library building - divided into 3 areas (permanent retention; 3-10 year retention, ready for destruction)
Subtotal				450							

Total Programmed Area	4,957
Efficiency Ratio	0.7
Non-Assignable Area	2,124
TOTAL	7,081

FINANCE											
Treasurer	195		1	195	1-4	8 H/D; 5 D/W	Finance staff; payroll; and near by planning, building, & clerk	Enclosed	-	L-Shaped desk w/ task chair; (2) guest chairs; (1) small collab table; (2-3) filing cabinets; (1) 30"W bookshelf; (1) 15"W printer stand	can share space with entire department in large area if a shared meeting room w/ a computer is nearby
Accounting Manager, Accountant, Accounting Analyst/AP, Utility Clerk/AR)	600		1	600	4	9 H/D; 5 D/W	Treasurer; Planning/Building; small meeting room with computer for public to research	Open Workstations	96" countertop with base cabinets (to allow for (2) staff to help customers & staff to sort notices & bills); (2) wall shelves, total of 90" LF	Utility - (2) filing cabinets; (1) collab table for all; (1) L-Shaped desk w/ task chair Accounting - (3) filing cabinets; (3) L-Shaped desks w/ task chairs; (1) copier; (2) bookshelves ((1) with height, (1) with width) Additional Notes - (1) desk from above to be at countertop with protective glass to help customers; Copier can be used by other departments but needs to be kept close to accountants	Ideally all finance & utility billing will be in one room Additional Notes - heated/cooled; overhead & task lighting; phone & data (extra data lines for credit card machines); Intrusion Detection (security camera & monitors)
Storage Room	64		1	64	1-4	Various hours; 5 D/W	Finance shared office	Enclosed	-	Shelving to store billing paper, storage boxes, calculator ribbons, files, folders, envelopes, etc. Shelving to store files by year - current, upcoming, and prior year information	Would like to keep items stored separately from other departments; access these files regularly so easy access is necessary
Subtotal				859							
HUMAN RESOURCES											
HR Manager	195		1	195	1-4	8 H/D; 5 D/W	Treasurer; Town Manager	Enclosed	Countertop with base cabinets (5' LF)	(1) 5'H Bookshelf; Desk w/ task chair; (2) guest chairs; (1) couch (optional); (1) large filing cabinet	Accessible to employees and welcoming; lots of light; needs to be private for interviews and confidential meetings; space for small groups to meet
Intern	48		1	48	1	-	HR; Town Manager	Open Workstation	-	(1) desk w/ task chair	-
Subtotal				243							
SUPPORT SPACES											
Restrooms	64		2	128	1	8 H/D; 5 D/W	-	Enclosed	-	-	Two single user restrooms
Subtotal				128							

Total Programmed Area for Second Floor **2,727**

Efficiency Ratio **0.8**

Non-Assignable Area **682**

TOTAL 3,409

AVAILABLE AREA 2,925 -484 DOES NOT FIT

FIRST FLOOR											
LIBRARY											
Room Data									Casework and Furniture		Remarks
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E	
Librarian	140		1	140	1	4 H/D; 7 D/W	Collection	Enclosed	6' counter with cabinets below; 3' wall cabinets	(1) desk w/ task chair; (1) guest chair; (1) collab table; (1) filing cabinet	-
Collection	1500		1	1500	100	8 H/D M-F; 4 H/D S-S	Restroom, Meeting Room	Open	8' counter (circulation desk) with 2 chairs; 6' wall cabinets;	8 chairs; 4' table; 1 filing cabinet; (9) 84" tall x 36" wide double sided bookshelves; (6) 66" tall x 36" wide double sided book shelves; (5) 48" tall x 36" wide double sided bookshelves	Programmed area is approximately equal to existing collection space
Meeting Room / Children's Programs	600		1	600	40	As needed	Restroom, Collection	Enclosed	-	40 chairs, or 24 chairs at tables	-
Meeting Room Table/Chair Storage	100		1	100	-	As needed	Meeting Room	Enclosed	-	-	-
Computer Lab	480		1	480	10	8 H/D M-F; 4 H/D S-S	Collection	Enclosed	-	10 computer desks	-
Subtotal				2820							
SUPPORT SPACES											
Restrooms	64		2	128	1	8 H/D; 5 D/W	-	Enclosed	-	-	Two single user restrooms
Subtotal				128							

Total Programmed Area for First Floor 2,948

Efficiency Ratio 0.85

Non-Assignable Area 520

TOTAL 3,468

AVAILABLE AREA 2,925 -543 DOES NOT FIT

Room Data									Casework and Furniture		Remarks
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E	
BUILDING DEPARTMENT											
Code Official	195		1	195	1	8 H/D; 5 D/W	Permit office / Zoning; Permit Tech; Other Inspectors	Enclosed	-	(1) desk w/ task chair; (2) guest chairs; (1) collab table for plans; (1) filing cabinet	-
Permit Assistant	400		1	400	2	8 H/D; 5 D/W	Code official; Zoning; Inspector	Open workstation with tall panel partitions for separation from future building inspector	12' countertop with base cabinets; (3) built in 4'x9' bookshelves	(1) desk w/ task chair; (2) guest chairs; (1) collab table for plans; (4) filing cabinets	General public will also occupy the space at times; Waiting/Seating area needed for general public
Future Building Inspector	0		1	0	1	8 H/D; 5 D/W	Code official; Zoning	Open workstation with tall panel partitions for separation from permit assistant	-	(1) desk w/ task chair; (1) guest chair; (1) collab table for plans	To share office with Permit Assistant
Plan Room / Storage Room	250		1	250	1	Various times of day/week	Code Official; Permit Assistant;	Enclosed	-	(2) filing cabinets; Plan racks, built in or moveable, enough to hold 200 sets of plans; 5'x5'x5' archive file cabinets	-
Subtotal				845							

PLANNING AND ZONING											
Planner	195		1	195	1	8 H/D; 5 D/W	Other Planning Staff; Building	Enclosed	-	(1) 2.5'W (min) bookshelf; (1) desk w/ task chair; (2) guest chairs; (1) 2'x4' collab table; (1) Rolling cart for maps and plans	Needs access to copier & plotter - can be centrally located
Zoning Administrator & Planner 1	200		1	200	2	8 H/D; 5 D/W	Director of Department & Technician	Enclosed	-	(2) desks w/ task chairs; (2) guest chairs; (1) 6' collab table; (2) filing cabinets w/ 4 drawers; (1) 4'W (min) bookshelf	-
Planning / Zoning Technician	150		1	150	2	8 H/D; 5 D/W	Planning/Zoning Director; Admin; Building	Open Workstation	Countertop with base cabinets	(2) desks w/ task chairs; (2) guest chairs; (2) 4-drawer vertical filing cabinets	-
Storage Room	100		1	100	-	-	Planning/Zoning; Building	Enclosed	-	Storage shelves for records, files and building plans	Central storage, shared with Building, where property records/files and building plans are maintained; currently, existing building has a large flat map storage drawer
Subtotal				645							
SUPPORT SPACES											
Restrooms	64		2	128	1	-	-	Enclosed	-	-	Two single user restrooms
Subtotal				128							

Total Programmed Area 1,618

Efficiency Ratio 0.8

Non-Assignable Area 405

TOTAL 2,023

AVAILABLE AREA 1,378 -645 Available are to be verified by HBA

									Casework and Furniture		Remarks
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E	
POLICE											
Chief	195		1	195	1	10 H/D; 5 D/W	Other Officers; Evidence; Wash Storage	Enclosed	6' wall cabinets	(1) desk w/ task chair; (2) guest chairs; (1) collab table; (5) filing cabinets	-
Lieutenant + Sergeant	300		1	300	2	24/7	Entire Police Department	Enclosed with (2) open workstations	6' wall cabinets	(2) desks w/ task chairs; (2) guest chairs; (1) collab table; (4) filing cabinets	Shared office
All Officers	600		1	600	10	24/7	Entire Police Department	Enclosed with (5) open workstations	15' wall cabinets	(5) desks w/ task chairs; (5) guest chairs; (2) collab tables; (1) couch; (5) filing cabinets	Shared office
Evidence Room	100		1	100	1	N/A	Chiefs Office	Enclosed	8' countertop with base cabinets; 8' wall cabinets	(4) filing cabinets	-
Armory	100		1	100	7	N/A	Entire Police Department; Evidence	Enclosed	8' countertop with base cabinets; 8' wall cabinets	-	-
Restroom with Shower	80		1	80			Entire Police Department	Enclosed	4' countertop with base cabinets; 2' wall cabinets	-	-
Restroom	48		1	48			Entire Police Department	Enclosed	-	-	-
Kitchen	64		1	64	-	-	-	-	6' countertop with base cabinets; 6' wall cabinets	-	-
Storage Garage (For Entire Department)	1,500		1	1500	-	-	-	-	-	-	To hold 25' boat with T-Top (30') with trailer; (2) spare cars; (1) utility trailer; (1) ATV; (1) Radar/Message Board Trailer; at least (3) bay doors
Subtotal				2987							

COUNCIL CHAMBERS											
Council Chambers	1,300		1	1300	100	-	Clerk's Office	Enclosed	-	(100) Chairs; (1) large table; (9) chairs around Council Dais	Additional lighting over dais Camera, mic, and projector screen
Storage Room	120		1	120	-	-	Council Chambers and Small Meeting Room	Enclosed	-	-	Meeting, A/V equipment, and catering supplies
Kitchenette	100		1	100	-	-	Council Chambers and Small Meeting Room	Enclosed	-	Countertop and wall cabinets	Coffee pot, Refrigerator, Microwave to support Meeting Room and Council Chambers
Restrooms	64		2	128	1	-	-	Enclosed	-	-	Two single user restrooms
Subtotal				1520							
ADMINISTRATION											
Archive Storage	450		1	450	1	Daily use	Clerk's Office; Archive Room	Enclosed	-	(1) table; (1) chair; (6-8) lateral files; (16) 7'H Bookshelves	Archive room currently takes up the entire 2nd floor front mezzanine area of the library building - divided into 3 areas (permanent retention; 3-10 year retention, ready for destruction)
Subtotal				450							

Total Programmed Area	4,957
Efficiency Ratio	0.7
Non-Assignable Area	2,124
TOTAL	7,081

Room Data									Casework and Furniture		Remarks
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E	
ADMINISTRATION											
Town Manager	230		1	230	1	10 H/D; 5 D/W	Special Assistant; Copier	Enclosed (Sound Proof)	-	Desk w/ task chair; (4) guest chairs; (1) collab table; (1) couch; (2) filing cabinets; (1) bookshelf; (1) ref.	-
Special Assistant	64		1	64	1	8-10 H/D; 5 D/W	Town Manager; Clerk; Copier	Open Workstation	Countertop with base cabinets	Desk w/ task chair; (2) filing cabinets	-
Project Manager	140		1	140	1-4	4 H/D; 5 D/W	Town Manager; Treasurer	Enclosed	-	Desk w/ task chair; (2) guest chairs; (1) filing cabinet; (1) 48" bookshelf	Additional storage for plans; Small meetings to take place in room
Subtotal				434							
CLERK											
Town Clerk	195		1	195	1-4	8-10 H/D; 5 D/W	Council Chambers; Small meeting room, File room, archive storage	Enclosed	Wall Cabinet 1-2 - 6' total	U-shaped desk w/ task chair, (2) guest chairs; (2) lateral files; (2) 7'H Bookshelves; (3) 3'W storage cabinets	Small meetings to take place within room
Future Assistant	48		1	48	1		Town Clerk	Open Workstation	-	Desk w/ task chair	Can be located in entry way leading to Clerk's office
Small Meeting Room	400		1	400	18	As Needed	Council Chambers	Enclosed	-	Conference table with 18 chairs	Room to be used for Council closed sessions, manager, and department meetings
File Room	200		1	200	1	Daily use	Archive storage; Clerk's Office	Enclosed (Preferably)	-	(1) small table; (1) chair; (6) lateral files; (4-6) 7'H bookshelves	-
Archive Storage	450		1	450	1	Daily use	Clerk's Office; Archive Room	Enclosed	-	(1) table; (1) chair; (6-8) lateral files; (16) 7'H Bookshelves	Archive room currently takes up the entire 2nd floor front mezzanine area of the library building - divided into 3 areas (permanent retention; 3-10 year retention, ready for destruction)
Storage Room	120		1	120	-	-	-	Enclosed	-	-	Meeting, A/V equipment, and catering supplies
Kitchenette	100		1	100	-	-	-	Enclosed	-	Countertop and wall cabinets	Coffee pot, Refrigerator, Microwave
Subtotal				1513							

FINANCE											
Treasurer	195		1	195	1-4	8 H/D; 5 D/W	Finance staff; payroll; and near by planning, building, & clerk	Enclosed	-	L-Shaped desk w/ task chair; (2) guest chairs; (1) small collab table; (2-3) filing cabinets; (1) 30"W bookshelf; (1) 15"W printer stand	can share space with entire department in large area if a shared meeting room w/ a computer is nearby
Accounting Manager, Accountant, Accounting Analyst/AP, Utility Clerk/AR)	600		1	600	4	9 H/D; 5 D/W	Treasurer; Planning/Building; small meeting room with computer for public to research	Open Workstations	96" countertop with base cabinets (to allow for (2) staff to help customers & staff to sort notices & bills); (2) wall shelves, total of 90" LF	Utility - (2) filing cabinets; (1) collab table for all; (1) L-Shaped desk w/ task chair Accounting - (3) filing cabinets; (3) L-Shaped desks w/ task chairs; (1) copier; (2) bookshelves ((1) with height, (1) with width) Additional Notes - (1) desk from above to be at countertop with protective glass to help customers; Copier can be used by other departments but needs to be kept close to accountants	Ideally all finance & utility billing will be in one room Additional Notes - heated/cooled; overhead & task lighting; phone & data (extra data lines for credit card machines); Intrusion Detection (security camera & monitors)
Storage Room	64		1	64	1-4	Various hours; 5 D/W	Finance shared office	Enclosed	-	Shelving to store billing paper, storage boxes, calculator ribbons, files, folders, envelopes, etc. Shelving to store files by year - current, upcoming, and prior year information	Would like to keep items stored separately from other departments; access these files regularly so easy access is necessary
Subtotal				859							
HUMAN RESOURCES											
HR Manager	195		1	195	1-4	8 H/D; 5 D/W	Treasurer; Town Manager	Enclosed	Countertop with base cabinets (5' LF)	(1) 5'H Bookshelf; Desk w/ task chair; (2) guest chairs; (1) couch (optional); (1) large filing cabinet	Accessible to employees and welcoming; lots of light; needs to be private for interviews and confidential meetings; space for small groups to meet
Intern	48		1	48	1	-	HR; Town Manager	Open Workstation	-	(1) desk w/ task chair	-
Subtotal				243							
LIBRARY											
Librarian	140		1	140	1	4 H/D; 7 D/W	Collection	Enclosed	6' counter with cabinets below; 3' wall cabinets	(1) desk w/ task chair; (1) guest chair; (1) collab table; (1) filing cabinet	-
Collection	1500		1	1500	100	8 H/D M-F; 4 H/D S-S	Restroom, Meeting Room	Open	8' counter (circulation desk) with 2 chairs; 6' wall cabinets;	8 chairs; 4' table; 1 filing cabinet; (9) 84" tall x 36" wide double sided bookshelves; (6) 66" tall x 36" wide double sided book shelves; (5) 48" tall x 36" wide double sided bookshelves	Programmed area is approximately equal to existing collection space
Meeting Room / Children's Programs	600		1	600	40	As needed	Restroom, Collection	Enclosed	-	40 chairs, or 24 chairs at tables	-
Meeting Room Table/Chair Storage	100		1	100	-	-	Meeting Room	Enclosed	-	-	-
Computer Lab	480		1	480	10	8 H/D M-F; 4 H/D S-S	Collection	Enclosed	-	10 computer desks	-
Subtotal				2820							

POLICE											
Chief	195		1	195	1	10 H/D; 5 D/W	Other Officers; Evidence; Wash Storage	Enclosed	6' wall cabinets	(1) desk w/ task chair; (2) guest chairs; (1) collab table; (5) filing cabinets	-
Lieutenant + Sergeant	300		1	300	2	24/7	Entire Police Department	Enclosed with (2) open workstations	6' wall cabinets	(2) desks w/ task chairs; (2) guest chairs; (1) collab table; (4) filing cabinets	Shared office
All Officers	600		1	600	10	24/7	Entire Police Department	Enclosed with (5) open workstations	15' wall cabinets	(5) desks w/ task chairs; (5) guest chairs; (2) collab tables; (1) couch; (5) filing cabinets	Shared office
Evidence Room	100		1	100	1	N/A	Chiefs Office	Enclosed	8' countertop with base cabinets; 8' wall cabinets	(4) filing cabinets	-
Armory	100		1	100	7	N/A	Entire Police Department; Evidence	Enclosed	8' countertop with base cabinets; 8' wall cabinets	-	-
Restroom with Shower	80		1	80			Entire Police Department	Enclosed	4' countertop with base cabinets; 2' wall cabinets	-	-
Restroom	48		1	48			Entire Police Department	Enclosed	-	-	-
Kitchen	64		1	64	-	-	-	-	6' countertop with base cabinets; 6' wall cabinets	-	-
Storage Garage (For Entire Department)	1,500		1	1500	-	-	-	-	-	-	To hold 25' boat with T-Top (30') with trailer; (2) spare cars; (1) utility trailer; (1) ATV; (1) Radar/Message Board Trailer; at least (3) bay doors
Subtotal				2987							
SUPPORT SPACES											
Elevator	64		1	64	-	-	-	Enclosed	-	-	-
Elevator Machine Room	64		1	64	-	-	-	Enclosed	-	-	-
Stair	180		4	720	-	-	-	Enclosed	-	-	Two stairwells
Restrooms	64		4	256	1	-	-	Enclosed	-	-	Two single user restrooms on each floor
Electrical Room	100		1	100	1	-	-	Enclosed	-	-	-
Mechanical Room	100		1	100	2	-	-	Enclosed	-	-	-
Subtotal				1304							

Total Programmed Area	11,655
Efficiency Ratio	0.7
Non-Assignable Area	4,995
TOTAL	16,650

TOWN OF CAPE CHARLES
OFFICE SPACE ALLOCATION - OPTION 3

CIVIC CENTER											
Room Data								Casework and Furniture		Remarks	
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E	

COUNCIL CHAMBERS

Council Chambers	1,300		1	1300	100	-	Clerk's Office	Enclosed	-	(100) Chairs; (1) large table; (9) chairs around Council Dais	Additional lighting over dais Camera, mic, and projector screen
Storage Room	120		1	120	-	-	Council Chambers and Small Meeting Room	Enclosed	-	-	Meeting, A/V equipment, and catering supplies
Kitchenette	100		1	100	-	-	Council Chambers and Small Meeting Room	Enclosed	-	Countertop and wall cabinets	Coffee pot, Refrigerator, Microwave to support Meeting Room and Council Chambers
Restrooms	64		2	128	1	-	-	Enclosed	-	-	Two single user restrooms
Subtotal				1520							

Total Programmed Area	1,520
Efficiency Ratio	0.8
Non-Assignable Area	380
TOTAL	1,900
AVAILABLE AREA	1,378 -522 Available are to be verified by HBA

FINANCE											
Treasurer	195		1	195	1-4	8 H/D; 5 D/W	Finance staff; payroll; and near by planning, building, & clerk	Enclosed	-	L-Shaped desk w/ task chair; (2) guest chairs; (1) small collab table; (2-3) filing cabinets; (1) 30"W bookshelf; (1) 15"W printer stand	can share space with entire department in large area if a shared meeting room w/ a computer is nearby
Accounting Manager, Accountant, Accounting Analyst/AP, Utility Clerk/AR)	600		1	600	4	9 H/D; 5 D/W	Treasurer; Planning/Building; small meeting room with computer for public to research	Open Workstations	96" countertop with base cabinets (to allow for (2) staff to help customers & staff to sort notices & bills); (2) wall shelves, total of 90" LF	Utility - (2) filing cabinets; (1) collab table for all; (1) L-Shaped desk w/ task chair Accounting - (3) filing cabinets; (3) L-Shaped desks w/ task chairs; (1) copier; (2) bookshelves ((1) with height, (1) with width) Additional Notes - (1) desk from above to be at countertop with protective glass to help customers; Copier can be used by other departments but needs to be kept close to accountants	Ideally all finance & utility billing will be in one room Additional Notes - heated/cooled; overhead & task lighting; phone & data (extra data lines for credit card machines); Intrusion Detection (security camera & monitors)
Storage Room	64		1	64	1-4	Various hours; 5 D/W	Finance shared office	Enclosed	-	Shelving to store billing paper, storage boxes, calculator ribbons, files, folders, envelopes, etc. Shelving to store files by year - current, upcoming, and prior year information	Would like to keep items stored separately from other departments; access these files regularly so easy access is necessary
Subtotal				859							

HUMAN RESOURCES

HR Manager	195		1	195	1-4	8 H/D; 5 D/W	Treasurer; Town Manager	Enclosed	Countertop with base cabinets (5' LF)	(1) 5'H Bookshelf; Desk w/ task chair; (2) guest chairs; (1) couch (optional); (1) large filing cabinet	Accessible to employees and welcoming; lots of light; needs to be private for interviews and confidential meetings; space for small groups to meet
Intern	48		1	48	1	-	HR; Town Manager	Open Workstation	-	(1) desk w/ task chair	-
Subtotal				243							

SUPPORT SPACES

Restrooms	64		2	128	1	-	-	Enclosed	-	-	Two single user restrooms
Subtotal				128							

Total Programmed Area for Third Floor and Front Mezzanine		3,177
Efficiency Ratio		0.8
Non-Assignable Area		794
TOTAL		3,971
AVAILABLE AREA		2,760 -1,211 DOES NOT FIT

FIRST FLOOR AND REAR MEZZANINE											
LIBRARY											
As Is	2800		1	2800	1	4 H/D; 7 D/W	-	-	-	-	Library to remain in its existing space
Subtotal				2800							

TOTAL		2,800
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Room Data									Casework and Furniture		Remarks
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E	
BUILDING DEPARTMENT											
Code Official	195		1	195	1	8 H/D; 5 D/W	Permit office / Zoning; Permit Tech; Other Inspectors	Enclosed	-	(1) desk w/ task chair; (2) guest chairs; (1) collab table for plans; (1) filing cabinet	-
Permit Assistant	400		1	400	2	8 H/D; 5 D/W	Code official; Zoning; Inspector	Open workstation with tall panel partitions for separation from future building inspector	12' countertop with base cabinets; (3) built in 4'x9' bookshelves	(1) desk w/ task chair; (2) guest chairs; (1) collab table for plans; (4) filing cabinets	General public will also occupy the space at times; Waiting/Seating area needed for general public
Future Building Inspector	0		1	0	1	8 H/D; 5 D/W	Code official; Zoning	Open workstation with tall panel partitions for separation from permit assistant	-	(1) desk w/ task chair; (1) guest chair; (1) collab table for plans	To share office with Permit Assistant
Plan Room / Storage Room	250		1	250	1	Various times of day/week	Code Official; Permit Assistant;	Enclosed	-	(2) filing cabinets; Plan racks, built in or moveable, enough to hold 200 sets of plans; 5'x5'x5' archive file cabinets	-
Subtotal				845							

PLANNING AND ZONING											
Planner	195		1	195	1	8 H/D; 5 D/W	Other Planning Staff; Building	Enclosed	-	(1) 2.5'W (min) bookshelf; (1) desk w/ task chair; (2) guest chairs; (1) 2'x4' collab table; (1) Rolling cart for maps and plans	Needs access to copier & plotter - can be centrally located
Zoning Administrator & Planner 1	200		1	200	2	8 H/D; 5 D/W	Director of Department & Technician	Enclosed	-	(2) desks w/ task chairs; (2) guest chairs; (1) 6' collab table; (2) filing cabinets w/ 4 drawers; (1) 4'W (min) bookshelf	-
Planning / Zoning Technician	150		1	150	2	8 H/D; 5 D/W	Planning/Zoning Director; Admin; Building	Open Workstation	Countertop with base cabinets	(2) desks w/ task chairs; (2) guest chairs; (2) 4-drawer vertical filing cabinets	-
Storage Room	100		1	100	-	-	Planning/Zoning; Building	Enclosed	-	Storage shelves for records, files and building plans	Central storage, shared with Building, where property records/files and building plans are maintained; currently, existing building has a large flat map storage drawer
Subtotal				645							
SUPPORT SPACES											
Restrooms	64		2	128	1	-	-	Enclosed	-	-	Two single user restrooms
Subtotal				128							

Total Programmed Area 1,618

Efficiency Ratio 0.8

Non-Assignable Area 405

TOTAL 2,023

AVAILABLE AREA 1,378 -645 Available are to be verified by HBA

									Casework and Furniture		Remarks
Space Name	Desired Area (sf)	Actual Area	Quantity Needed	Subtotal (sf)	Max. No. People	Hours of Use	Adjacent to	Enclosed or Open	Casework	FF&E	
POLICE											
Chief	195		1	195	1	10 H/D; 5 D/W	Other Officers; Evidence; Wash Storage	Enclosed	6' wall cabinets	(1) desk w/ task chair; (2) guest chairs; (1) collab table; (5) filing cabinets	-
Lieutenant + Sergeant	300		1	300	2	24/7	Entire Police Department	Enclosed with (2) open workstations	6' wall cabinets	(2) desks w/ task chairs; (2) guest chairs; (1) collab table; (4) filing cabinets	Shared office
All Officers	600		1	600	10	24/7	Entire Police Department	Enclosed with (5) open workstations	15' wall cabinets	(5) desks w/ task chairs; (5) guest chairs; (2) collab tables; (1) couch; (5) filing cabinets	Shared office
Evidence Room	100		1	100	1	N/A	Chiefs Office	Enclosed	8' countertop with base cabinets; 8' wall cabinets	(4) filing cabinets	-
Armory	100		1	100	7	N/A	Entire Police Department; Evidence	Enclosed	8' countertop with base cabinets; 8' wall cabinets	-	-
Restroom with Shower	80		1	80			Entire Police Department	Enclosed	4' countertop with base cabinets; 2' wall cabinets	-	-
Restroom	48		1	48			Entire Police Department	Enclosed	-	-	-
Kitchen	64		1	64	-	-	-	-	6' countertop with base cabinets; 6' wall cabinets	-	-
Storage Garage (For Entire Department)	1,500		1	1500	-	-	-	-	-	-	To hold 25' boat with T-Top (30') with trailer; (2) spare cars; (1) utility trailer; (1) ATV; (1) Radar/Message Board Trailer; at least (3) bay doors
Subtotal				2987							

COUNCIL CHAMBERS											
Council Chambers	1,300		1	1300	100	-	Clerk's Office	Enclosed	-	(100) Chairs; (1) large table; (9) chairs around Council Dais	Additional lighting over dais Camera, mic, and projector screen
Storage Room	120		1	120	-	-	Council Chambers	Enclosed	-	-	Meeting, A/V equipment, and catering supplies
Kitchenette	100		1	100	-	-	Council Chambers and Small Meeting Room	Enclosed	-	Countertop and wall cabinets	Coffee pot, Refrigerator, Microwave to support Meeting Room and Council Chambers
Restrooms	64		2	128	1	-	-	Enclosed	-	-	Two single user restrooms
Subtotal				1520							

Total Programmed Area	4,507
Efficiency Ratio	0.7
Non-Assignable Area	1,932
TOTAL	6,439

General Fund

Project List

Project name	Priority	Category	Level	Town Cost	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Municipal Space Renovation or Replacement*	High	I	A	\$ 2,000,000	\$ 140,000	\$ 1,400,000	\$ 600,000			
Storm Drain CCTV & Mapping, Phase 2	High	II	A	\$ 30,000		\$ 30,000				
Replace PW Butler Building	Medium	I	A	\$ 120,000				\$ 120,000		
Multi-Use Trail Phase 3 Construction	High	III	B	\$ 200,000	\$ 200,000					
Mason Ave Restroom*	Medium	II	B	\$ 110,000	\$ 110,000					
South Beach Restroom Renovation*	Medium	II	B	\$ 40,000		\$ 40,000				
Beach ADA Access Mats	High	III	B	\$ 10,000		\$ 10,000				
Tazewell Beach Access	Medium	II	B	\$ 25,000		\$ 25,000				
Randolph Beach Access	Medium	II	B				\$ 35,000			
Town Trash Cans Replacements	Medium	II	B	\$ 25,000		\$ 25,000				
Improve Mason Ave Parking Lot	Medium	II	B				\$ 20,000			
Sidewalk Infill	Low	IV	C	\$ 582,000			\$ 22,000	\$ 20,000	\$ 365,000	\$ 175,000
Adult Game Area in the Park	Low	IV	C	\$ 7,250	\$ 7,250					
Sports/Rec Field/Restroom*	Low	IV	C	\$ 140,000		\$ 20,000	\$ 120,000			

<u>GF Total</u> - 2022 dollars	\$ 3,289,250	\$ 457,250	\$ 1,550,000	\$ 797,000	\$ 140,000	\$ 365,000	\$ 175,000
Inflation adjusted dollars (3%)	\$ 3,661,220	\$ 457,250	\$ 1,596,500	\$ 844,820	\$ 152,600	\$ 408,800	\$ 201,250

Harbor Fund	\$ 1,001,000	\$ 143,000	\$ 182,000	\$ 250,000	\$ 280,000	\$ 96,000	\$ 50,000
Utilities Fund	\$ 8,532,000	\$ 60,000	\$ 625,000	\$ 1,437,000	\$ 1,210,000	\$ 200,000	\$ 5,000,000
Sanitation Fund	\$ 12,000				\$ 12,000		

<u>Grand Total</u> - 2022 dollars	\$ 12,834,250	\$ 517,250	\$ 2,357,000	\$ 2,484,000	\$ 1,630,000	\$ 673,000	\$ 5,225,000
Inflation adjusted dollars (3%)	\$ 13,985,180	\$ 517,250	\$ 2,427,710	\$ 2,633,040	\$ 1,644,670	\$ 753,760	\$ 6,008,750

*If grants or new debt were considered, amounts could be reduced

Project List

Harbor Fund

<u>Project name</u>	<u>Priority</u>	<u>Category</u>	<u>Level</u>	<u>Town Cost</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>
Fuel System - Relocate Emergency Stop Switches	High	I	A	\$ 10,000	\$ 10,000					
Fuel Management Sys. Repl.	High	I	A	\$ 42,000	\$ 42,000					
Floating Dock Anchor Pile Guide Replacements	High	II	A	\$ 15,000	\$ 15,000					
Inner Harbor Fixed Dock Repair	High	II	A	\$ 25,000	\$ 13,000	\$ 12,000				
Inner Harbor King Pile and Waler Replacement*	Medium	II	B	\$ 540,000	\$ 30,000	\$ 170,000	\$ 170,000	\$ 170,000		
Outer Harbor Concrete Bulkhead Repair & Concrete Boardwalk*	Medium	II	B	\$ 140,000			\$ 70,000	\$ 70,000		
Anchor Pile for Kayak Launch	Medium	II	B	\$ 5,000	\$ 5,000					
Upgrade Bath House Lighting	Medium	II	B	\$ 10,000	\$ 10,000					
Upgrade Office Lighting	Medium	II	B	\$ 8,000	\$ 8,000					
Replace Bath House Heat Pumps	Medium	II	B	\$ 14,000					\$ 14,000	
Floating Dock Anchor Pile Replacement*	Medium	II	B	\$ 100,000					\$ 50,000	\$ 50,000
Ladder & Catwalk for Fuel Tank	Medium	II	B	\$ 40,000				\$ 40,000		
Breakwater Protective Dolphins	Medium	III	B	\$ 32,000					\$ 32,000	
Dehumidifiers for Shower Rooms	Low	III	C	\$ 5,000	\$ 5,000					
Improved Parking Capacity	Low	III	C	\$ 5,000	\$ 5,000					
Harbor Pergola	Low	III	C	\$ 10,000			\$ 10,000			

2022 dollars	\$ 1,001,000	\$ 143,000	\$ 182,000	\$ 250,000	\$ 280,000	\$ 96,000	\$ 50,000
Inflation adjusted dollars (3%)	\$ 1,065,680	\$ 143,000	\$ 187,460	\$ 265,000	\$ 305,200	\$ 107,520	\$ 57,500

*If grants or new debt were considered, amounts could be reduced

Cape Charles Harbor Capital Management Plan

Prepared for:
Town of Cape Charles



January 13, 2022

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Cape Charles Harbor Capital Management Plan



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DISCLAIMER

Our observations were limited to accessible and visible areas. Existing elements and finishes were not removed to gain access to concealed portions of the building. Findings, recommendations, opinions, and/or conclusions within this report have been made in accordance with generally accepted structural engineering principles and practices within this locality; no warranties are implied or expressed. The team performed a visual inspection of the Cape Charles Harbor infrastructure to identify deficiencies and estimate replacement costs. This report is not intended for bidding or construction purposes.



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EXECUTIVE SUMMARY

The team was engaged to perform an evaluation of the existing harbor facilities and estimating the remaining useful life of the major components and estimating their replacement costs in today's dollars. These items are illustrated on the aerial photograph below and listed below:



Outer Harbor

1. Concrete Bulkhead
2. Timber Boardwalk
3. Floating Docks
4. Fixed Breakwater

Inner Harbor

5. Sloped Concrete Revetment
6. Kayak Launch & Piers
7. Vinyl Bulkhead
8. Concrete Boardwalk
9. Fixed Docks

Common Elements

10. Bath House
11. Dockmaster
12. Pump-Out
13. Parking Lot
14. Fuel System

Structural Summary

From a structural perspective, harbor elements are rated based on the National Bridge Inspection Standard Rating Chart with designations are listed below:

9	Excellent Condition	4	Poor Condition
8	Very Good Condition	3	Serious Condition
7	Good Condition	2	Critical Condition
6	Satisfactory Condition	1	Imminent Failure Condition
5	Fair Condition	0	Failed Condition

The majority of the harbor elements are in are in **Fair (5)** to **Satisfactory (6)** condition. The anchor piles and pile guides for the floating docks need attention. The floating docks are in **Fair (5)** to



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Poor (4) condition that should be addressed to maintain the serviceability. Of most concern is the fixed breakwater. The north end of the breakwater was impacted by a barge or vessel causing significant damage. Continued wave action has exacerbated the damage to a condition of **Imminent Failure (1)** with sheetpiles missing and numerous sheared bolts. The steel sheetpiles are separated from the timber waler for approximately third of the overall length. The added force on the remaining pile bents caused loose connections and the structure deflects and oscillates under normal wave action. The breakwater in a severely diminished capacity and could fail completely under storm conditions.

Plumbing, Mechanical & Electrical Summary

Floating Docks - Electrical service pedestals and service equipment were manufactured in 2011 and are in good condition, even though some corrosion is present. Most lenses are yellowing, which is expected outdoors. Some covers were missing and should be replaced.

Bath House - Domestic water service is not protected from cross contamination. A reduced pressure principle backflow preventer should be added as part of any work performed in the building. Recommend adding exhaust fan controls so that they do not operate 24/7. Recommend adding dehumidifiers to each shower area to reduce humidity during summertime operation. All exterior receptacles should be replaced with ground fault interrupter (GFI) type receptacles. All interior lighting should be replaced with high efficiency LED lighting. All interior exit lights and emergency battery units (EBUs) were inoperable and should be replaced. Exterior emergency egress lighting should be added at all exterior egress doors in accordance with code.

Dockmaster - Domestic water service is not protected from cross contamination. A reduced pressure principle backflow preventer should be added as part of any work performed in the building. The water heater is in good condition, though the drain pan needs drain piping to a safe location. A former HVAC ceiling opening should be properly. Outdoor heat pump is installed too close to the building limiting its operational and service clearances. Restrooms have individual exhaust fans but rely on adjacent space air to provide conditioning and freeze protection. Recommend adding small electric unit heaters to ensure against freezing. All exterior receptacles should be replaced with ground fault interrupter (GFI) type receptacles. All interior lighting should be replaced with high efficiency LED lighting. Exposed capped wiring was noted in several locations. This wiring should be terminated in covered junction boxes for safety.

Fuel System Summary

The fuel system condition survey is attached as an appendix. There are numerous issues including improper or missing product labels and decals, unsafe filling procedures, improper tank vent, inoperable overfill alarm, product piping not approved for gasoline use, fuel management system not connected to all dispensers and does not record all transactions, fire extinguishers out of date.



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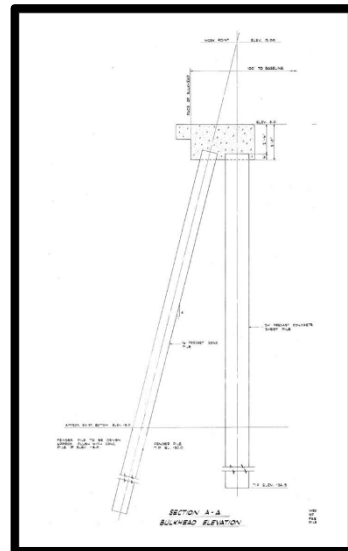


CONDITION SURVEY

Outer Harbor

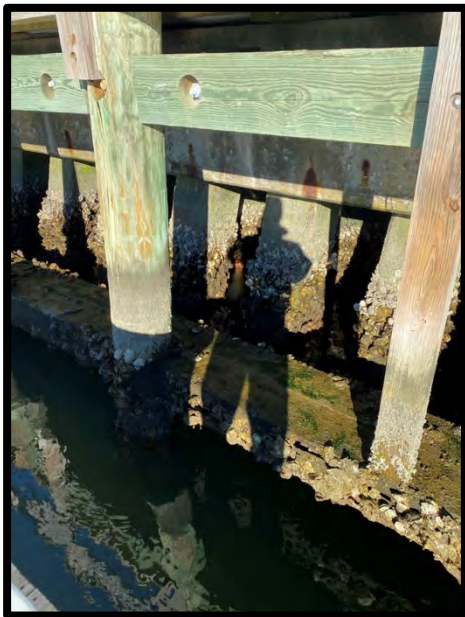
1. Concrete Bulkhead

The concrete bulkhead extends approximately 800 feet from southeast of the Bath House adjacent to the rip-rap jetty. The bulkhead extends north to the Bath House and then west just past the Shanty Restaurant. It was difficult to get a close look at the concrete structure because the Timber Boardwalk is constructed over the bulkhead limiting access and obstructing the view. The bulkhead is constructed of precast concrete sheetpiles with a cast-in-place concrete cap similar to the structure at the Yacht Center at the southeast corner of the harbor. The sheetpiles are supported laterally by square, precast concrete reaction piles. The construction appears to change as it turns north at the Shanty. All that was visible at the time of our inspection was the concrete cap. Observations of this portion were also limited for the lack of good vantage points.



Based on our observations, the concrete bulkhead appears to be in **Fair Condition (5)**. According to the original construction drawings, the bulkhead structure is almost fifty years old. Our assessment is based on what we were able to see as well as previous observations of the similar structures referred to above. We observed some severe spalling and cracking of the concrete cap at several locations. This type of damage would be expected for a structure of this age. However, we could not get a close enough look to accurately document all the damage. We recommend a closer inspection including an underwater component.

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It is difficult to estimate the remaining service life of the existing concrete bulkhead. Based on similar structures in the harbor, we estimate that there is another twenty years of service life remaining before a replacement effort will be necessary. The service life can be extended by repairing existing cracks and spalls. This process should be repeated every five to six years. Bulkhead replacement is complicated by the existing precast concrete reaction piles battered seaward into the harbor.

The recommended replacement would be a steel sheetpile bulkhead due to the depth of water. The cost to replace the existing concrete bulkhead in this manner would be approximately \$2,500 per linear foot. This would include the sheetpiles, concrete cap and a new tieback system. The total cost for the entire length would be approximately \$2,000,000.

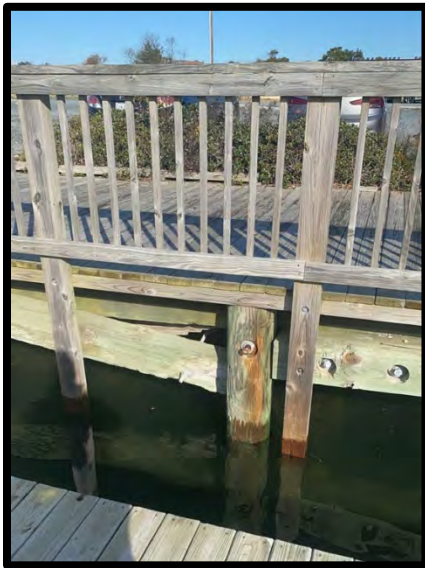
2. Timber Boardwalk

Construction of the timber boardwalk varies along its 800' length. This section of boardwalk covers and, to a large extent, conceals the above-mentioned concrete bulkhead. The boardwalk is primarily constructed with 2x6 decking on 4x6 stringers spanning approximately 8' between girders. The girders span from the concrete bulkhead structure to outboard piles spaced approximately 8' on center. There is a continuous, double 8x8 waler system located just under the decking at mean low water. The railing consists of 4x4 posts 5' on center. These posts attach to the upper walers and the side stringer as well as extending down to the lower waler. The railing is continuous 2x4s with a top, continuous 2x6 oriented flat. There are 2x2 pickets spaced with a maximum gap of 4", per code.



The boardwalk and railing is in **Good (7)** condition with the exception of a few maintenance items. We noted a condition where the top waler has broken away from the adjacent pile. It appears to be the result of some type of impact. We noted several loose

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or disconnected bolts. The 2x6 deck is also in **Good (7)** condition. However, decking does deteriorate and gets damaged periodically. We suggest being proactive about replacing damaged decking and hardware each year.

We estimate the service life of the boardwalk and railing is approximately twenty years depending on maintenance. The service life can be extended with proper repairs and continued maintenance. We recommend regular maintenance where damaged sections of railing, decking, walers and piles are replaced in an as-needed basis. We recommend a closer inspection of the underside of the decking be performed to document all deficiencies in the underside of the timber structure. This may require a small boat or a diver.

The cost of a replacement structure, including demolition would be approximately \$650 to \$750 per linear foot. Considering the varying construction configurations necessary, the total replacement costs for the timber boardwalk would be approximately \$600,000.

3. Floating Docks

a. Structural

The floating dock system consists of three separate piers that extend into the harbor from the north side adjacent to the Shanty Restaurant. These docks are connected by a 600' long main dock that runs east to west and terminates at a floating wave attenuator that is oriented in the north-south direction. The existing wave attenuator is approximately 130' long. The docks and floats appear to be in **Good (7)** condition. However, we noted that several of the anchor piles



are worn and are badly corroded. This was mostly observed on the wave attenuator. We also noted that several of the external pile guides are in **Poor (4)** condition. The rollers are worn down and there is metal rubbing against metal. Several of the piles on the wave attenuator have experienced section loss from friction from the damaged pile guides. This will accelerate the deterioration of the piles from

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corrosion from the saltwater environment. There are approximately 12 - 15 pile guides that need to be replaced in the near future. Otherwise, the life of the anchor piles will be severely reduced. If the guides are repaired, the remaining service life of the anchor piles is approximately ten years. If they are not repaired, it could be as little as two to three years.



b. Plumbing

The floating dock system is provided with potable water serving utility pedestals. Piping throughout is PVC. Water piping appears to be in good condition, however some of the piping is exposed to direct sunlight, which will substantially shorten the life expectancy of the system. Piping should be protected from sunlight exposure.

c. Electrical

Electrical service pedestals S1, S2, and S3 are rated 700A at 240/120V, 1-phase, 3-wire. The service equipment was manufactured in 2011 and is in good condition. Some corrosion is present, which is expected considering the proximity to the water and associated salt-laden environment. Each service pedestal has an integral transformer to step the incoming 480V service voltage down to 240/120V. The service



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pedestals are fed from Panel “P” rated 800A at 480/277V, 3-phase, 4W. This panel is manufactured by Eaton, PRL4 series, manufactured in February 2011, and is in good condition.

Utility service pedestals for power and water are generally in fair condition. Most of the pedestals are rated 140A max, 120/240V, 4-wire and are manufactured by Marina Power and Lighting, Inc., “Hatteras” model. Some corrosion is present, which is expected considering the proximity to the water and associated salt-laden environment. Most lenses are yellowing, which is expected outdoors. Some covers were missing and should be replaced.

d. Gangways

There are two aluminum gangways that access the floating docks from the timber boardwalk. Both are approximately forty feet long. One is located near the bath house on the east end of the timber boardwalk and the other is located at the west end by the Shanty Restaurant. Both gangways are in **Good (7)** condition with no apparent defects. We estimate that the service life would be up to thirty years. It will be important to monitor the connections and hinges. These items can deteriorate over time but can be repaired or replaced as needed.

Replacement cost for similar aluminum gangways would be approximately \$50,000 each.



An estimate for the replacement cost for the floating system in the Outer Harbor is approximately \$1,900,000.

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4. Fixed Breakwater



The fixed breakwater is constructed of steel sheetpiles and timber piles and walers. The timber piles are configured with a vertical pile and a battered piles spaced at 4' on center. The sheetpile pairs alternate between fully embedded and stopping at elevation -12.0 ft. There are two continuous walers; one at the top at +8.0 ft and the other at mean low water. The original design was 230' long with a deck surface and protective dolphins and fender piles. In addition, the existing floating wave attenuator and a portion of the floating dock was to be relocated to the north. The project scope was reduced because of budgetary constraints. The wave attenuator was not moved, about half of the proposed

breakwater structure was built, and the protective dolphins and fenders were not installed.

It is our understanding that the breakwater was impacted by a barge or large vessel resulting in significant damage. Currently, the sheetpiles and walers for the northernmost 10' are missing from sight. At least another 20' of the sheetpiles are no longer supported laterally and move back and forth with wave action. Several bolts have sheared which would be consistent with a side impact. This has severely compromised the remaining section of the breakwater.

The fixed breakwater is in **Poor (2)** condition and could fail under severe storm conditions. Currently, about 80' – 90' of the existing structure can be salvaged if a repair effort is implemented soon. We recommend replacing the missing members and sheared bolts. A thorough, close-up investigation from a boat should be performed where all connections are tested so that all broken bolts can be identified and replaced. We also suggest protective dolphins be installed at either end. The best scenario would be to repair the existing breakwater and complete as much of the original scope of work as possible.



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The approximate cost of the recommended repair is \$120,000. To further reinforce and stabilize the breakwater structure, it would be advisable to add another wale and bolt the inside flange to the back to the pile bents. This would add another \$44,000 to the repair costs. In addition, to help protect the structure from future impacts, we recommend installing four three pile dolphins at an additional \$32,000.

Inner Harbor

5. Sloped Concrete Revetment



The shoreline between the boat ramps and the Dockmaster is protected by a sloped, concrete revetment. The revetment is at an approximate angle of 30° from horizontal and extends from below the mudline to about 3' above mean high water. It appears to be constructed with cast-in-place concrete slabs-on-grade of unknown thickness. The concrete revetment is in **Fair (5)** condition with several cracks in the slabs. There is severe cracking at the corner near the boat ramp. In spite of these conditions, the concrete revetment appears to be serving its purpose adequately. We estimate the service life of the concrete revetment is approximately ten years.

As it deteriorates, it can be reinforced with rip rap at a cost of approximately \$60,000.

6. Kayak Launch & Piers

The kayak launch consists of a floating dock system with timber framing and decking. Attached to the side is a mechanism to assist handicapped kayakers. An aluminum gangway provides access to the floating dock from the northernmost and unused boat ramp. The landside of the gangway rests on a 4x4 timber that appears to sit directly on the concrete ramp surface. The floating dock is held in place by chains that attach to the adjacent fixed piers. The kayak



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launch appears to be in **Good (7)** condition. A severe high tide could submerge the landside of the gangway. Typically, these dock systems are secured with anchor piles with pile guides. This may not be possible in this location because of the concrete boat ramp over which it's placed. Typically, the service life for structures like this is approximately twenty-five years. In its current installation, it may not survive a severe weather event that included a significant storm surge.



There is a system of fixed docks serving multiple boat ramps under state authority, and 1 fixed dock between the ramps and the Dockmaster. The fixed docks consist of timber pile bents 8' on center with two, 3x10 girders at each bent. The bents support 2x8 stringers spaced 16" on center with 2x6 wood decking. There is a rail on the perimeter that consists of a continuous 2x4 over 2x4 blocking for a height above the deck of three inches. The docks are constructed relatively low to the water and the girders are submerged at high tide. The hardware is corroded and will

require replacement over the next few years. The fixed pier farthest to the west is in **Serious (3)** condition with severe deterioration to the timber piles and supporting members. This pier should be replaced or demolished in the near future. The remaining fixed docks are in **Satisfactory (6)** condition. We estimate the remaining service life at approximately fifteen years. With proper maintenance and prompt repair of damaged and deteriorated members, the service life could be extended another ten years.

We estimate that approximately fifteen percent of the decking should be replaced within the next twenty-four months. We did not note any damaged timbers during our inspections. However, it would be prudent to program for minor repairs and replacement of a modest amount of damaged or deteriorated members.

We were not able to accurately evaluate the piles below the water line. Therefore, we recommend engaging a qualified diving company to perform a level one, visual underwater inspection of all the piles. We estimate the remaining service life to be approximately fifteen years. This can be extended with maintenance and repair/replacement of damaged members.

We estimate the replacement costs for the fixed docks to be approximately \$500,000.

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7. Vinyl Bulkhead

The bulkhead around the Inner Harbor is constructed of vinyl sheetpiling with one 8x8 timber waler at the top and one just above low water. There are 8" diameter king piles at approximately 6' on center with a steel rod tieback at each pile. We do not have any information on the length nor the composition and depth of the deadman. We understand that some of the tiebacks were exposed when the concrete slab was installed a few years ago and they appeared to be in **Good (7)** condition according to town personnel. Considering the entire structure, the vinyl bulkhead is in **Fair (5)** condition. This rating is based mainly on the condition of the king piles and lower walers. There are numerous piles that are either broken or damaged by abrasion of commercial boats riding up and down with the tide. Approximately twenty percent of the lower walers have deteriorated and lost significant cross-sectional area. If these deficiencies are repaired, the condition rating would be elevated to **Good (7)**. If it is not repaired, the wall may experience local failures that would be expensive to fix.



We estimate that there is approximately twenty years of service life remaining. The limiting factor for the service life is the timber and the steel hardware. If these items are maintained by regularly replacing damaged timbers and rusted hardware, the service life can be extended an additional ten years.

Replacement cost of the approximately 1200' of bulkhead would be in the \$1,000 to \$1,200 per linear foot range. To replace the entire length would be approximately \$1,400,000. This does not include the demolition and replacement of the concrete boardwalk.

8. Concrete Boardwalk

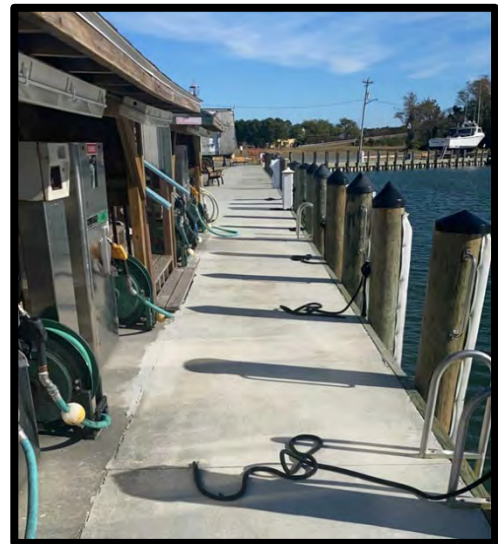
The concrete boardwalk that surrounds the Inner Harbor appears to be in **Very Good (8)** condition. We understand that this slab was constructed within the last few years. Our office provided preliminary construction documents for this slab in October of 2019. Those drawings called for a 6" slab on grade. However, it is apparent that the slab that is in place was not constructed per our drawings. Our drawings indicated a continuous joint just inside of the bulkhead as a designed crack to account for future slab settlement. We did not observe any settlement or cracking at the time of our inspection. Any future

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movement of the bulkhead or a loss of material may result in cracking. There is no reason that the slab will not last as long as the remaining service life of the bulkhead that it is integrated with. Thus, we estimate twenty to thirty years of service life. It will be critical to maintain the slab by repairing any cracks or spalls immediately.

The existing concrete boardwalk is in **Very Good (8)** condition and will likely not require replacement until the vinyl bulkhead described above is replaced.



9. Fixed Docks

The fixed dock and finger piers in the Inner Harbor serve as boat slips for both commercial and pleasure craft. The construction consists of timber pile bents 8' on center with two, 3x10 girders at each bent. The bents support 2x8 stringers spaced at 16" on center with 2x6 wood decking. The finger piers are constructed with two 3x10 girders out to another timber pile and is also decked with 2x6 decking. We do not have any construction documents for these structures, and we do not have any information on when they were built.



The condition of the fixed docks and finger piers are in **Satisfactory (6)** condition with some minor section loss and missing or unattached diagonal braces. We estimate the remaining service life at approximately ten to fifteen years. With proper maintenance and prompt repair of damaged and deteriorated members, the service life could be extended another ten years. Most of the hardware is corroded, especially at the girder connections. We estimate that approximately fifteen percent of the bolts need to be replaced within the next twenty-four months. The decking is worn and deteriorated in several locations. We estimate that approximately fifteen percent of the decking should also be replaced within the next twenty-four months. We did not note any major damage to the main timbers

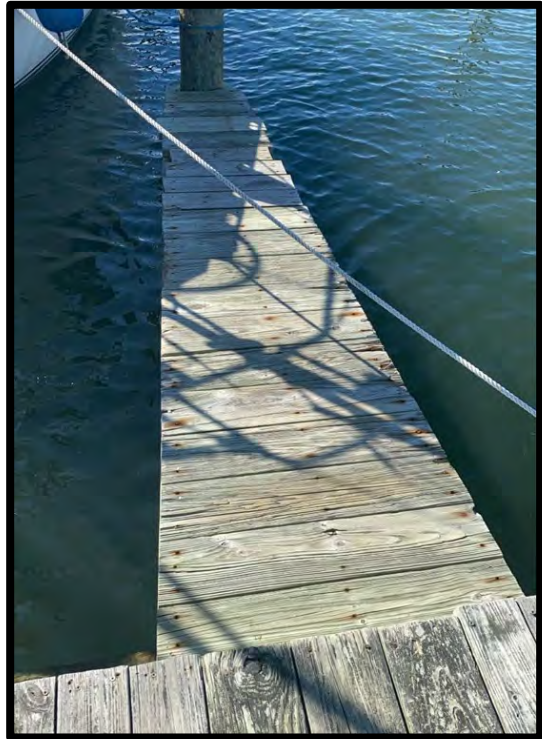
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during our inspections. However, we did note that some of the diagonal braces have deteriorated. It would be prudent to program for minor repairs and replacement of a modest amount of damaged or deteriorated members each year.

We were not able to accurately evaluate the piles below the water line. Therefore, we recommend engaging a qualified diving company to perform a level one, visual underwater inspection of all the piles. We estimate the remaining service life to be approximately fifteen years. This can be extended with maintenance and repair/replacement of damaged members.

The current configuration is not an efficient use of harbor water space. The best solution for replacement would be a floating dock system. The cost of a floating dock system can vary greatly depending on the area of floating dock and configuration. A replacement floating dock system compatible with the current size and number of slips would cost approximately \$1,500,000 in today's dollars.



Common Elements

10. Bath House

a. Structural

The bath house is a one-story wood framed structure that was built approximately ten years ago. The building structure appears to be in **Very Good (8)** condition with no observed structural issues.

b. Plumbing

The plumbing systems in the building currently consist of domestic water, sanitary waste and vent systems, water heating systems, and various fixtures throughout the building. The existing water service is fed from the municipal water system. The domestic water service is not currently protected from cross contamination, at variance with the statewide water purveyor requirements. A reduced pressure principle backflow preventer will need to be added to the domestic water service as part of any work performed in the building. Budgetary cost for new backflow

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preventer: \$1,500. Sanitary waste discharges into a duplex sewage lift station, which appears to be in good operating condition. The water piping was noted to be PEX throughout. The sanitary waste and vent systems generally consist of PVC piping. Based on the age and condition of the system, minor repairs may be needed throughout the building. Domestic hot water is currently generated by two gas-fired tankless water heaters. Each water heater is in good condition. Plumbing fixtures generally consist of flush tank water closets, countertop and ADA wall-mounted lavatories, and shower stalls. Most fixtures appear to be in good operable condition. Shower area drainage needs to be addressed since improper floor slope lets water pool at the door.



c. Mechanical



Existing HVAC system for the bath house consists of two split system heat pumps. Each system is 2.5-ton capacity heat pump with electric emergency heat. Units were manufactured by Trane and were installed in 2011. Systems appear to be in good working order and should last another 5 years. Typical service life for this type of equipment is approximately 15 years. Outdoor unit enclosure appears to be too close to the units, limiting service and operating clearances. Restroom and showers have individual exhaust fans, but it is not clear how these are controlled. Recommend adding some type of occupancy control to the exhaust fans so that they do not operate 24/7. We would also recommend adding dehumidifiers to each shower areas to reduce the humidity during summertime operation, since the existing system do not offer direct dehumidification. Approximate construction cost for the recommendations is \$5,000.

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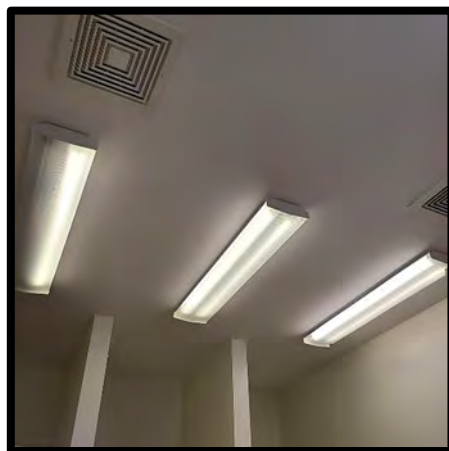
d. Electrical

The existing electrical service for the bath house is rated 200-amps at 240/120V, 1-phase, 3-wire, and is adequate for the proposed use. The electrical distribution equipment is a single main distribution panelboard manufactured by Square-D. This equipment is in good condition, is of currently supported manufacture, and is suitable for re-use. Observable wiring methods appear to be in general accordance with code and could be re-used to the extent possible during any upgrades.

All exterior receptacles installed at the bath house should be replaced with ground fault interrupter (GFI) type receptacles with weatherproof while-in-use covers in accordance with current code requirements. GFI type receptacles are installed in wet locations indoors as required.



The existing interior lighting consists primarily of approximately older linear lensed fluorescent fixtures. Several were damaged with cracked lenses, and some had inoperable lamps. All interior lighting should be replaced with high efficiency LED lighting with appropriate lighting controls per current energy codes. All interior exit lights and emergency battery units (EBUs) were found to be inoperable during the site inspection and should be replaced. Exterior lighting fixtures are recessed fluorescent downlights. These downlights should be considered for replacement with LED equivalent types during any proposed upgrades. The exterior lights were noted to be on when it appeared sufficient daylight was present, and several had yellowing or missing lenses. Recommend confirming proper operation of exterior photocell and replacement as required. Exterior emergency egress lighting should be added at all exterior egress doors in accordance with code.



Budgetary cost for the lighting system replacement and replacement of GFI receptacles and covers is \$15,250.

The replacement cost for the bath house would be approximately \$275 per square foot. Replacing the current bathroom square footage would be approximately \$440,000. This does not include decks and porches.

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11. Dockmaster

a. Structural

The dockmaster's office is a one story, modular type structure elevated above grade and surrounded by a metal skirt. We do not have the construction documents and could not locate a crawl space access. However, we were able to verify that the modular unit is supported on a system of CMU piers and is strapped down with metal tie straps. Based on our observation, the dockmaster's office structure is in **Very Good (8)** condition with no observed structural issues.

b. Plumbing

The plumbing systems in the building currently consist of domestic water, sanitary waste and vent systems, water heating systems, and various fixtures throughout the building. The existing water service is fed from the municipal water system and distributes to fixtures by a mixture of PVC and copper piping, except the laundry room water piping, which is noted to be CPVC. The domestic water service is not currently protected from cross contamination, at variance with the statewide water purveyor requirements. A reduced pressure principle backflow preventer will need to be added to the domestic water service as part of any work performed in the building. Estimated cost of backflow preventer \$1,500. Sanitary waste discharges into a duplex sewage lift station, which appears to be in good operating condition. Based on the age and condition of the systems, minor repairs may be needed throughout the building. Domestic hot water is currently generated by a residential style electric tank water heater. The water heater is in good condition, though the drain pan needs drain piping to a safe location. Plumbing fixtures generally consist of flush tank water closets, countertop, and ADA wall-mounted lavatories. Fixtures appear to be in good operable condition. Budgetary Cost for drain pan piping: \$750.



c. Mechanical

Existing HVAC system withing the dockmaster's building consist of a 2-ton

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outdoor heat pump coupled to two 1-ton indoor evaporators (wall mounted ductless type). We were unable to determine the age of the systems based on serial numbers, but they appear to be in good operating condition. It does appear however that at some point the building had a central HVAC system, which is evident by improperly patched ceiling openings where the supply diffusers once were. Ceilings should be properly patched to limit air infiltration and increase buildings thermal efficiency. Outdoor heat pump is installed too close to the building limiting its operational and service clearances. Restrooms have individual exhaust fans, but do not have heating and cooling - they rely on adjacent space air to provide conditioning and freeze protection. At a minimum we recommend adding small electric unit heaters to the restrooms to ensure they will always stay above freezing. To address outdoor unit relocation, add unit heaters to the restroom, and patch the ceiling, approximate construction budget is \$7,500.



d. Electrical



The existing electrical service for the Dockmaster building appears to be rated 200-amps at 240/120V, 1-phase, 3-wire, and is adequate for the proposed use. The electrical distribution equipment consists of a single main distribution panelboard manufactured by Square-D. This equipment is in fair condition and is of currently supported manufacture. This equipment could be reused as part of any renovations but recommend replacement if the building is replaced in its entirety.

Exterior power equipment adjacent to the Dockmaster building is in fair condition but located in an area primarily used for storage. Stored materials should be relocated to ensure the necessary 36" code required working clearance in front of all electrical equipment.

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Several pieces of equipment were not properly secured to the outside of the building, including the meter base, and should be repaired. All exterior receptacles installed at the dockmaster building should be replaced with ground fault interrupter (GFI) type receptacles with weatherproof while-in-use covers in accordance with current code requirements.

The existing interior lighting consists primarily of older linear fluorescent fixtures. Several were damaged with cracked lenses and inoperable lamps. All interior lighting should be replaced with high efficiency LED lighting with appropriate lighting controls per current energy codes. There is a single four-foot LED strip light installed in the laundry room that was strobing during the site inspection and should be repaired or replaced.



Exposed capped wiring was noted in several locations. This wiring should be terminated in covered junction boxes for safety.

Wiring devices (switches and receptacles) are aged and should be replaced during any proposed improvements.

Budgetary cost for the lighting system replacement and replacement of wiring devices is \$8,000.

The replacement cost for the dockmaster's office would be approximately \$250 per square foot. Replacing the current square footage would be approximately \$120,000.

12. Pump-Out

A boat holding tank pump-out is located adjacent to the Dockmaster and fuel pumps. The Edson peristaltic pump creates suction to withdraw sewage from boat holding tanks and discharge into a sanitary manhole for conveyance to the sanitary treatment plant. The pump-out was installed in 2017 through a CVA grant with the State of Virginia. The Dockmaster indicates the pump-out is operating as expected.

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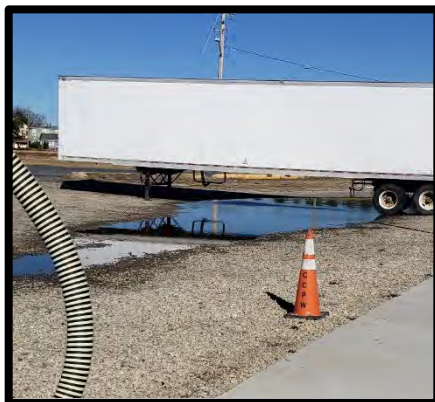


13. Parking Lot

The asphalt drive and parking lot provide access and parking for several users: the outer harbor floating docks, the Shanty Restaurant, the public boat ramps, the bath house, fuel tank and Dockmaster. Heavy loads are primarily service vehicles and fuel trucks with an occasional heavy vessel on a trailer.

Asphalt pavement distress is determined by visual inspection to evaluate pavement surface conditions. There are 4 major categories of common pavement surface distress: surface defects, surface deformation, cracks, patches/potholes. Pavement deterioration has 2 general causes: environmental due to weathering and aging, and structural caused by repeated traffic loadings. The rate at which pavement deteriorates depends on its environment, traffic loading conditions, original construction quality and interim maintenance procedures. Timely and effective maintenance can extend a pavement's life. Crack sealing and seal coating can reduce the effect of moisture in aging of asphalt pavement.

The asphalt drive and parking lot are in good condition. The pavement had been cut for utility line installation, but it appears the cuts were properly patched and sealed. There was some cracking adjacent thereto that should be sealed to avoid moisture penetration.



An additional issue concerning poor site drainage was observed with ponding in the gravel parking area where commercial vessels are serviced, just east of the Dockmaster. The area subject to ponding should be filled to direct runoff further east to an existing drop inlet.

14. Fuel System

The fuel system report is included as Appendix A.

Cape Charles City Dock Fuel System

Report prepared by JF Petro group 12-20-2021

AST Condition report

AST is 3 compartment Steel Double wall Flameshield manufactured by General Tank co. Greensboro NC.

Compartment 1 Non Ethanol Gas

Compartment 2 Diesel Fuel

Compartment 3 is Unleaded Motor fuel

General condition of the AST is very good, well maintained fresh paint.

Tank was Manufactured in Jan 2006 and Delivered to Cape Charles Va. in Feb 2006. This Tank would be generally considered to be the middle range in its use life.

Drawings and Tank charts furnished as attachments to this report.

Deficiencies noted;

No Product Labels or decals present at all.

No DEQ and Fire Code required decals present.

No safe access for filling using a ladder currently. Recommend Tank ladder and catwalk or remote fills so product can be filled from ground level.

Tank needs one Vapor vent installed, one compartment has an improper Tank vent installed.



Pnumerator audible overfill alarm is inoperable may require replacement this is a DEQ requirement for overfill protection.

Regular Unleaded fill box spill container has broken lid, it is not secure from wind.

Overfill protection valves are in place and not externally testable.

Needs Pressure Vacuum vent on one Gas compartment, (not pictured). One compartment has the proper vent one doesn't.



Fuel product Piping

All piping is above ground in good serviceable condition. Underground lines were disconnected and abandoned.

All piping is painted, and coatings are in good condition and recently applied.

The majority of steel piping is likely manufactured by Apollo Valve and appears to be their “Powerpress” piping system and though properly Installed is only advertised for use with Heating Oil and Diesel fuel, it is not rated for Gasoline systems, there would appear to be an application issue with this piping installation.

No leaks or irregularities noted.



Fuel Containment sumps

All dispensers have containment sumps and are not electronically monitored.

We suggest adding electronic monitoring to the pumps. This site would require upgrades to current systems in order continuously monitor the sumps, if required.

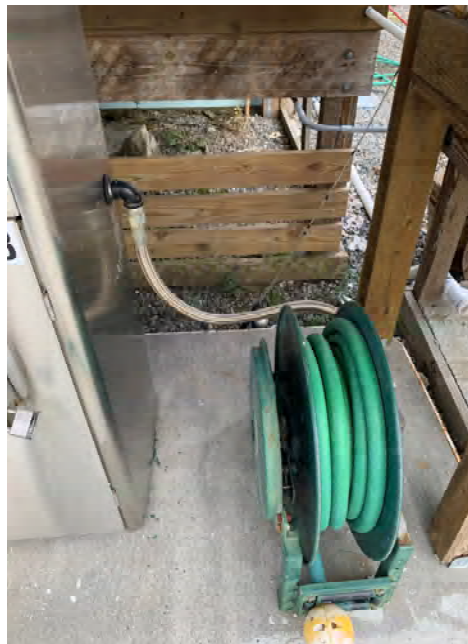




Hoses and dispensing

Hoses are serviceable and are also required to have an annual Coast Guard Hydrostatic test in close proximity to the water and report on file.

Likely hoses would be replaced and tested before Installation because testing hoses after fuel is introduced and testing of used hoses can be problematic.



Fuel Dispensing Emergency Stop Switches

Location and placement of Emergency stop locations is not ideal

No signage is installed on any of the Emergency stop locations

Stop switch behind Tank is not attached and conduit is broken. No Signage



Fire Extinguishers

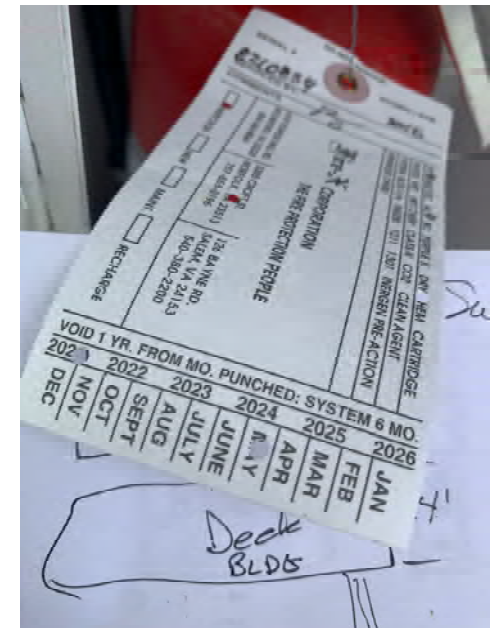
Fire Extinguishers are inconsistently maintained some are current some are not. No signage present on any fire extinguishers.

Cabinets on the dock adjacent to the water are not attached properly and very dangerous.



Fire Extinguishers

- Fire extinguisher condition

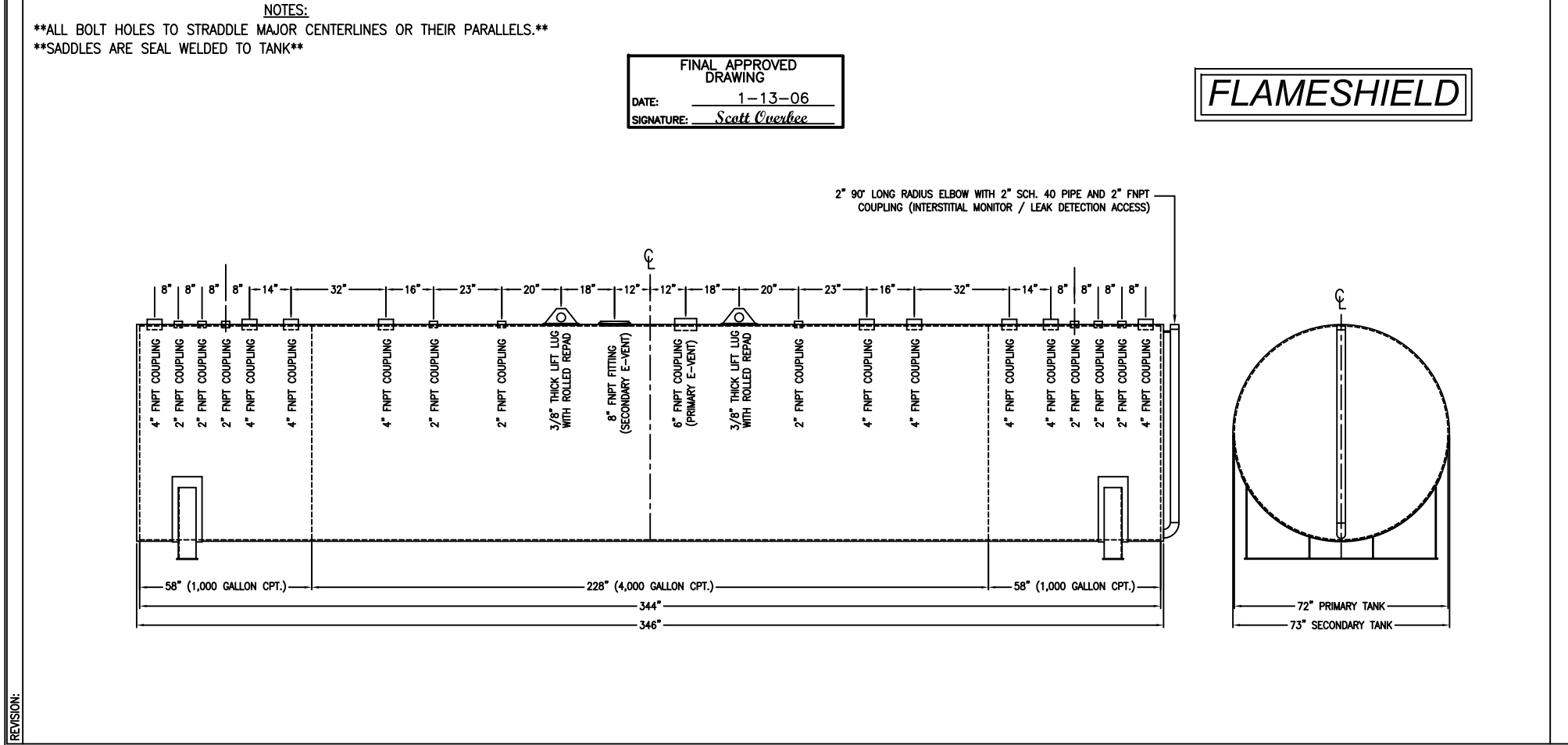


Fuel Management system

Fuel management system is not connected to all dispensers and does not record all transactions. System is outdated and in need of upgrades. We would need more information on the needs of the end user to determine system recommendations.



PART DESCRIPTION / ITEM NAME	QUANTITY	PART DESCRIPTION / ITEM NAME	QUANTITY	PART DESCRIPTION / ITEM NAME	QUANTITY	6,000 GALLON D/W A/G STORAGE TANK
73" DIA. x 346" LONG x 7 GA SHELL (4,132 lb)	1	72" DIA. x 344" LONG x 1/4" SHELL (5,511 lb)	1	-	-	SPECIFICATIONS/CONSTRUCTION INFORMATION:
WELD ROD	26 lb	2" FNPT COUPLING AND THREAD PROTECTOR (3 lb eo)	9	-	-	UL-142 / STI 921 STANDARDS AND LABELING
UNIVERSAL PRIMER (12 lb/gal)	4 gal	4" FNPT COUPLING AND THREAD PROTECTOR (5 lb eo)	9	-	-	PRIMARY: SHELL AND HEADS: 1/4"
-	-	72 DIA. x 1/4" FLAT FLANGED HEAD (312 lb eo)(420 lb eo)	2 SUBS	-	-	SECONDARY SHELL AND HEADS: 7 GA
GENERAL INDUSTRIES NAMEPLATE LABEL	1	72 DIA. x 1/4" FLAT FLANGED ONE PECE BULKHEAD (312 lb eo)	2	-	-	SURFACE PREPARATION / PAINTING INFORMATION:
UL-142 LABEL AND LABEL HOLDER	1 ea	WELD ROD	54 lb	-	-	EXTERIOR SURFACES: SSPC-SP-7 BRUSH OFF BLAST
-	-	8" FNPT COUPLING WITH THREAD PROTECTOR	1	-	-	ONE COAT UNIVERSAL PRIMER @ 4-6 MDT
73 DIA. x 7 GA FLAT FLANGED HEAD (236 lb eo)(316 lb eo)	2 SUBS	-	-	-	-	
73 DIA. SADDLES (161 lb eo)	2 SUBS	-	-	-	-	
-	-	-	-	-	-	
8" FNPT FITTING WITH THREAD PROTECTOR	1	-	-	-	-	
-	-	-	-	-	-	
MONITOR PIPE SUB ASSEMBLY (1 SUB REQUIRED)	-	-	-	-	-	
2" 90° LR ELBOW (2 lb)	1	-	-	-	-	
2" SCH 40 PIPE (3.65 lb/ft)	6 ft	-	-	-	-	
2" FNPT COUPLING AND THREAD PROTECTOR	1 ea	-	-	-	-	
LIFT LUG SUB ASSEMBLY (2 SUBS REQUIRED)	-	-	-	-	-	
3/8" THICK LIFT LUG (3 lb eo)	1	-	-	-	-	
12" x 12" x 1/4" REINFORCING PAD ROLLED 97" L.D. (10.2 lb eo)	1	-	-	-	-	
				P/U: W/G: SUB: DIKE:		CUSTOMER / PROJECT:
				FAB: COAT: CUSTOMER REQUESTED SHIP DATE:		OESSCO / CAPE CHARLES, VA
				WEIGHT: 10,180 lb ± 5%		DRAWING NUMBER: 25-4114
						DRAWN BY: S. OVERBEE
						DRAWING DATE:



Summary

Suggested Immediate action items would be;

- 1-Update Fire extinguishers, signage and attachment of cabinets to dock. Add emergency stops (2 of them). Approximate cost \$12,000.
- 2- Signage and NFPA decals on Storage Tank. Approximate cost \$1,200.
- 3- Safe access to Tank for loading and broken spill container on Tank top. Approximate cost \$38,000.

Suggested upgrade items for evaluation would be;

- 1- Fuel management system upgrade. Approximate cost \$41,000.
- 2- Additional monitoring of sumps and Tank level. Approximate cost \$48,000.
- 3- Replace existing piping system not carrying approval for use with dispensed products. Approximate cost \$66,000.

Project List

Utilities Fund

<u>Project name</u>	<u>Priority</u>	<u>Category</u>	<u>Level</u>	<u>Town Cost</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>
Connect Keck Wells to WTP	High	II	A	\$ 460,000	\$ 60,000	\$ 400,000				
WTP Expansion/Refurbishment*	High	II	A	\$ 2,000,000		\$ 100,000	\$ 1,000,000	\$ 900,000		
Water Tower Mixers	Medium	I	A	\$ 55,000		\$ 55,000				
WWTP Membrane Replacement	Medium	I	A	\$ 500,000			\$ 250,000	\$ 250,000		
Washington Ave Pump Station	Medium	II	B	\$ 160,000		\$ 40,000	\$ 120,000			
Remote Read Water Meters*	Medium	II	B	\$ 90,000		\$ 30,000	\$ 30,000	\$ 30,000		
WTP Emergency Bypass	Medium	II	B	\$ 37,000			\$ 37,000			
WTP Backwash Holding Tank	Medium	II	B	\$ 30,000				\$ 30,000		
Mason Ave Pump Station	Medium	II	B	\$ 200,000					\$ 200,000	
WWTP Expansion*	Low	IV	C	\$ 5,000,000						\$ 5,000,000

2022 dollars	\$ 8,532,000	\$ 60,000	\$ 625,000	\$ 1,437,000	\$ 1,210,000	\$ 200,000	\$ 5,000,000
Inflation adjusted dollars (3%)	\$ 9,519,870	\$ 60,000	\$ 643,750	\$ 1,523,220	\$ 1,318,900	\$ 224,000	\$ 5,750,000

*If grants or new debt were considered, amounts could be reduced

Project List

Sanitation Fund

<u>Project name</u>	<u>Priority</u>	<u>Category</u>	<u>Level</u>	<u>Town Cost</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>
Trash Can Replacements	Medium	II	B	\$ 12,000				\$ 12,000		

2022 dollars	\$ 12,000	\$ -	\$ -	\$ -	\$ 12,000	\$ -	\$ -
Inflation adjusted dollars (3%)		\$ -	\$ -	\$ -	\$ 13,080	\$ -	\$ -

PRIORITIES

HIGH: Project mandated by local, state, or federal regulations, or
Project is a high priority of the Town Council*, or
Project substantially reduces losses or increases revenues

MEDIUM: Project maintains existing service levels, or
Project results in better efficiency or service delivery of existing services, or
Project reduces operational costs, or Project improves work force morale

LOW: Project is not mandated, or Project improves service levels, or Project improves quality of life

* Projects designated as a High Council Priority must directly contribute to priorities already established in previously adopted formal actions

CRITERIA CATEGORIES

- I. **Health/Safety/Welfare** - projects that protect the health, safety and welfare of the community and the employees serving it.
- II. **Maintenance/Replacement** - projects that provide for the maintenance of existing systems and equipment.
- III. **Expansion of Existing Programs** - projects which enhance the existing systems and programs allowing for expansion of existing services.
- IV. **Expansion of New Programs** - projects that allow for expansion into new programs and services.

LEVEL

CRITERIA/PRIORITY	HIGH	MEDIUM	LOW
I	LEVEL A		
II		LEVEL B	
III			LEVEL C
IV			