

# MASTER PLAN for FORT BARTON

TIVERTON, RI



## EXISTING CONDITIONS

Prepared by:

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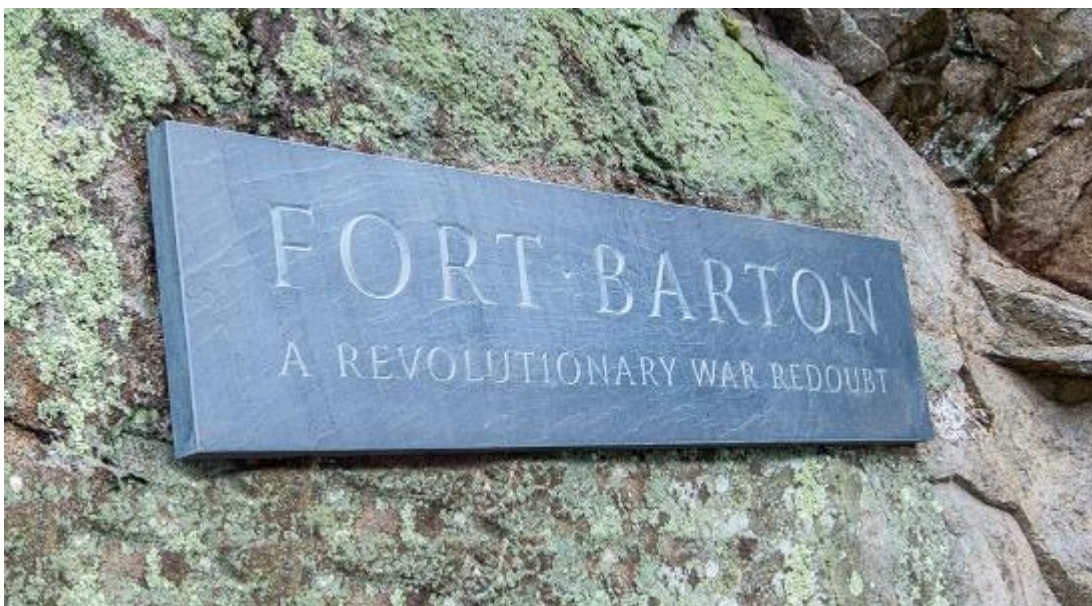
LANDSCAPE ARCHITECTURE

February 2021



## BACKGROUND

During several meetings of the Tiverton Open Space and Land Preservation Commission in 1919 many landscape issues were discussed regarding improving public access, safety, and historical preservation and interpretation of the Revolutionary War redoubt. The Commission eventually concluded that professional analysis was needed to properly assess alternative solutions, and approved funding for a Fort Barton Master Plan at their regular meeting on December 16, 2019. This resulted in the Bradford Associates, LLC proposal of November 25, 2019, included here as Appendix 2. Progress on this project came to a halt during 2020 due to funding issues caused by the Covid-19 pandemic. This Existing Conditions report serves to memorialize baseline conditions for resuming development of the Master Plan, whenever that may occur.





## SURVEY

The approximately 2-acre “Fort Hill Lot” was sold to the president of the Newport Historical Society in 1923 to begin a chain of ownership to becoming a Town of Tiverton public historic site. The roughly rectangular parcel defined by north, south and east stonewalls and Highland Road is a little over 3 acres. The open area above the road and top of bluff is approximately 1.85 acres and includes earthwork remnants of the Revolutionary War redoubt, viewing areas and trailheads/major pathways to Highland Woods and the Sin and Flesh Brook Natural Area. The topographic survey of the area provides an accurate record of the existing remnants of the fort’s earthworks. Major trees, large boulders, outcrops and manmade features associated with the fort area are also included.

Individual large trees were located by the surveyor. Species were confirmed and additional smaller trees added to the Tree Inventory sheet, Plan FB-2. Formal and informal circulation routes are also shown.

This information, including topography, major trees, observation tower, paths and driveway, is the basis for master planning decisions to protect the historic fort remnants through compatible land use and site management.

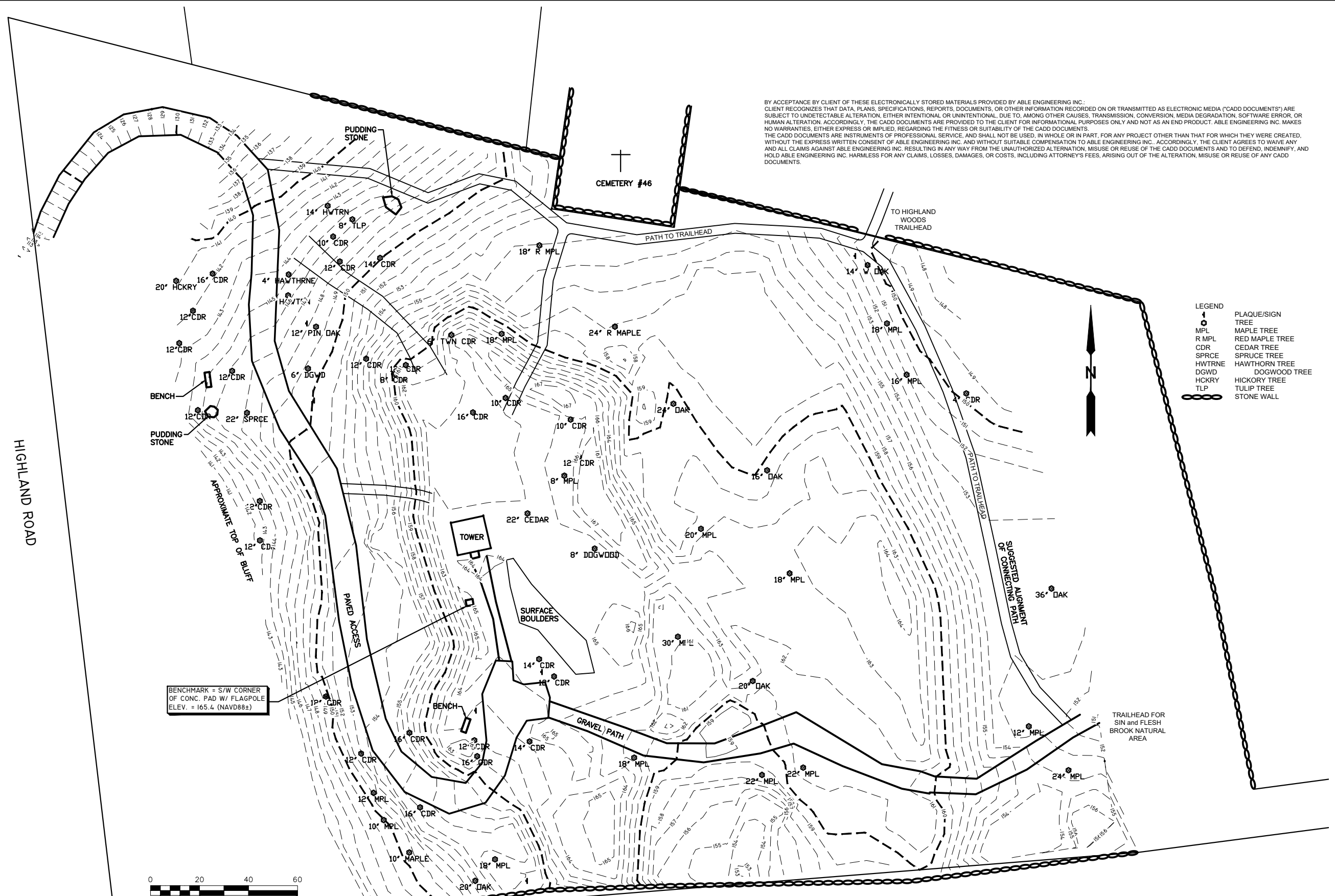
**\*\* See Plan ‘FB-1 Survey’**



Photo source: Google Earth

**SURVEY BY:**  
**ABLE ENGINEERING INC**  
 291 Long Highway  
 Little Compton, RI 02837  
 (401) 592-1302  
 COMPLETED FEBRUARY 2020

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LEGEND

PLAQUE/SIGN	1
TREE	⊙
MAPLE TREE	MPL
RED MAPLE TREE	R MPL
CEDAR TREE	CDR
SPRUCE TREE	SPRCE
HAWTHORN TREE	HWTRNE
DOGWOOD TREE	DGWD
HICKORY TREE	HCKRY
TULIP TREE	TLP
STONE WALL	— — — — —

BENCHMARK = S/W CORNER OF CONC. PAD W/ FLAGPOLE  
 ELEV. = 165.4 (NAVD88±)



ELEVATION DATUM= NAVD88±

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 435-RICR-00-00-1.9 OF THE RULES & REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON 5/4/16 AS FOLLOWS:  
 A. TYPE OF BOUNDARY SURVEY: NOT A BOUNDARY SURVEY MEASUREMENT SPECIFICATION.  
 B. OTHER TYPE OF SURVEY: COMPILATION PLAN; MEASUREMENT SPECIFICATION: IV  
 "THIS COMPILATION PLAN HAS BEEN PREPARED FROM SOURCES OF INFORMATION AND DATA WHOSE POSITIONAL ACCURACY AND RELIABILITY HAS NOT BEEN VERIFIED. THE PROPERTY LINES DEPICTED HEREON DO NOT REPRESENT A BOUNDARY OPINION, AND OTHER INFORMATION DEPICTED IS SUBJECT TO SUCH CHANGE AS AN AUTHORITY FIELD SURVEY MAY DISCLOSE."  
 TOPOGRAPHIC SURVEY ACCURACY: T-2  
 C. STATEMENT OF PURPOSE: THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS  
 BY DONALD J. MEDEIROS, PLS #1923

**PROJECT:**  
 FORT BARTON  
 MASTER PLAN  
 TIVERTON, RHODE ISLAND  
**CLIENT:**  
 TIVERTON OPEN SPACE  
 COMMISSION

EXISTING CONDITIONS	DATE: 2.02.21
	SCALE: AS SHOWN
<b>SURVEY</b>	FB-1



## TREE INVENTORY

Trees within the study area are typically mature, red cedar, oak and maple growing in open grassy areas. Several ornamental trees such as flowering dogwood, spruce, pin oak, honey locust have been planted over the years to complement a park-like setting.

Major trees are plotted on the *Tree Inventory*, Plan FB-2, and tree conditions with associated data are recorded in the *Appendix - Tree Inventory*, beginning on page 12. The general ratings used for tree health and structure are as follows:

**Poor:** Obvious deterioration, significant deadwood, rot or cavities: not expected to survive.

**Fair:** Some deterioration, dead wood, or canopy loss but less serious.

**Good:** Generally healthy appearance, minimum sign of damage or disease and with shape typical of the species.



Photo: A mix of evergreen and deciduous trees grow on the fort slopes and the surrounding area.














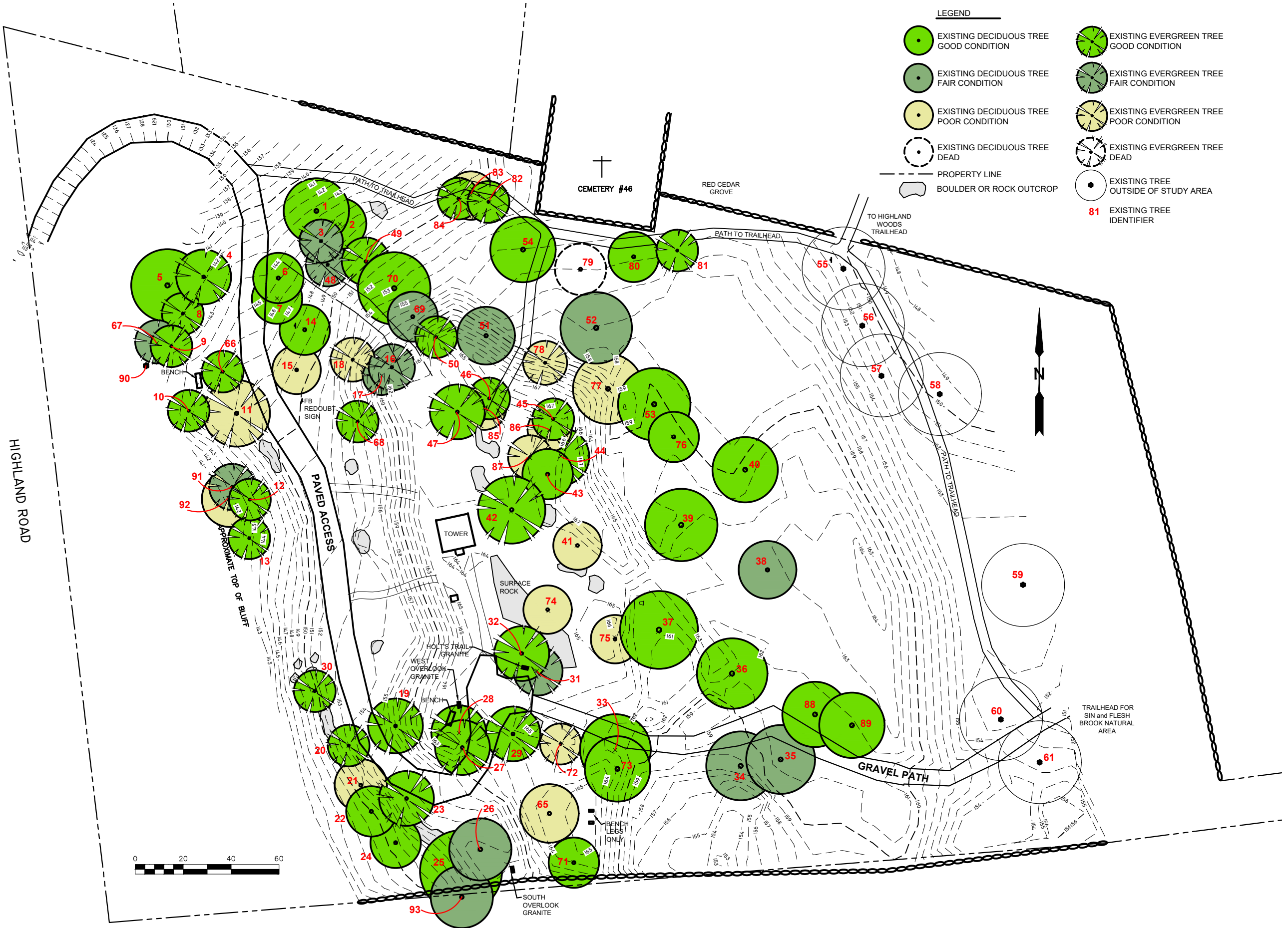
Photo: Dogwood and pin oak are among the few trees that were commemorative plantings.

Trees have a major impact on the landscape character of the fort area. The locations of evergreen vs. deciduous trees, as well as their condition and size are important in assessing view corridors and management decisions. Poor condition trees and smaller ones may be a priority for removal to improve views or circulation.

**\*\* See Plan 'FB-2 Tree Inventory' and 'Appendix'**

LEGEND

-  EXISTING DECIDUOUS TREE GOOD CONDITION
-  EXISTING DECIDUOUS TREE FAIR CONDITION
-  EXISTING DECIDUOUS TREE POOR CONDITION
-  EXISTING DECIDUOUS TREE DEAD
-  PROPERTY LINE
-  BOULDER OR ROCK OUTCROP
-  EXISTING EVERGREEN TREE GOOD CONDITION
-  EXISTING EVERGREEN TREE FAIR CONDITION
-  EXISTING EVERGREEN TREE POOR CONDITION
-  EXISTING EVERGREEN TREE DEAD
-  EXISTING TREE OUTSIDE OF STUDY AREA
- 81** EXISTING TREE IDENTIFIER



PROJECT:  
**FORT BARTON  
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 CONDITIONS

**TREE  
 INVENTORY**

DATE:  
 2.02.21

SCALE:  
 AS SHOWN

FB-2



## VEGETATION TYPE

The *Vegetation Type Plan* documents general categories of vegetation on site and thus describes landscape character and its current management.

Vegetation types included in the plan are as follows:

**Undisturbed Woods:** naturally occurring woodland

**Woods-Selective Clear:** the steep west slope below the access drive, where trees are trimmed periodically to maintain the views from the top of bluff and tower

**Rough Grass with Isolated Trees:** infrequently mown grass and other herbaceous vegetation on earthworks slopes, poor soils or areas too shady to support lawn

**Lawn:** regularly mown, high-use grassy areas

**Brush/Shrubby:** lesser managed areas growing in with various briars and brushy growth.

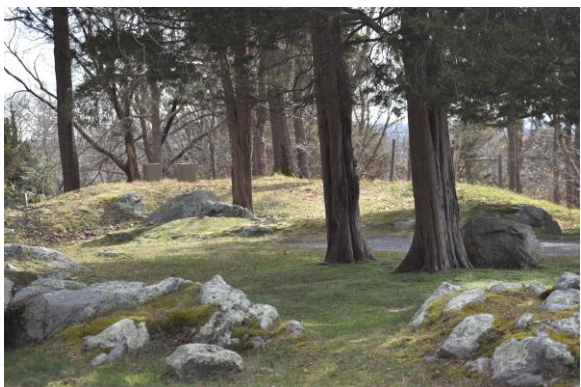


Photo: Mown grass with isolated trees and rock outcrops south of the observation tower.












Photo: Rough grass on the steep slope below the fort earthworks.

An important element of master planning for the site will involve vegetation and long-term protection of the fort earthworks. Plans should encourage desirable use of the site while considering available resources. Much of the area is now rough grass, a category with a range of growing conditions and uses. As planning proceeds strategies will be developed for stewarding both the sensitive slopes of the redoubt and the surrounding low maintenance, limited use areas.

**\*\* See Plan 'FB-3 Vegetation Type'**

**LEGEND**

-  EXISTING DECIDUOUS TREE
-  EXISTING EVERGREEN TREE
-  PROPERTY LINE
-  BOULDER OR ROCK OUTCROP
-  UNDISTURBED WOODS
-  WOODS- SELECTIVE CLEAR
-  ROUGH GRASS WITH ISOLATED TREES
-  MOWN GRASS WITH ISOLATED TREES
-  SHRUBBY



BENCHMARK = S/W CORNER  
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 ELEV. = 165.4 (NAVD88±)



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**DATE:**  
 2.02.21

**SCALE:**  
 AS SHOWN

**VEGETATION  
 TYPE**

FB-3





## TOPOGRAPHY/ STEEP SLOPES

The Fort Barton site is essentially a hill defined by a steep slope and cliff edge to the west, and mature woods on the bank to the east. There is a more gradual slope on the north boundary, and irregular banks/outcrops along the stone wall of the south boundary.

The steep western slope facing the narrow strait of the Sakonnet River undoubtedly had particular significance to the strategic location of the fort. This, and the western slope are identified on plan FB-4 as “native terrain - steep slopes.” In contrast, the complex shaping of slopes in the central area of the hilltop are clearly the constructed earthworks of the redoubt. They rise 6 to 10 feet above the surrounding grade, sloping 1 foot per 2-3 feet horizontal in a consistent pattern to reveal the outline remnants of the fort parapet and its earthworks.



Photo: The steep slopes of the fort rise above the surrounding hilltop grade.



Photo: Erosion on the steep slopes from pedestrians and bikes could be the beginning of irreparable damage to the fort slope.

All slopes, both natural and manmade, are vulnerable to disturbance and erosion. Remarkably, however, the redoubt area has remained relatively stable with its protective cover of vegetation. The slopes still provide clear evidence of the early fort location and layout. This makes it all the more important that plans be developed and implemented to preserve this relatively intact Revolutionary War site.

**\*\* See Plan ‘FB-4 Topography/ Slopes’**



**LEGEND**

- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- PROPERTY LINE
- STEEP SLOPE (3:1 OR GREATER) HISTORIC EARTHWORK
- STEEP SLOPE (3:1 OR GREATER) NATIVE TERRAIN
- BOULDER OR ROCK OUTCROP

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**EXISTING  
 CONDITIONS**

**TOPOGRAPHY  
 / SLOPES**

DATE:  
 2.02.21  
 SCALE:  
 AS SHOWN  
 FB-4



## FORT BARTON

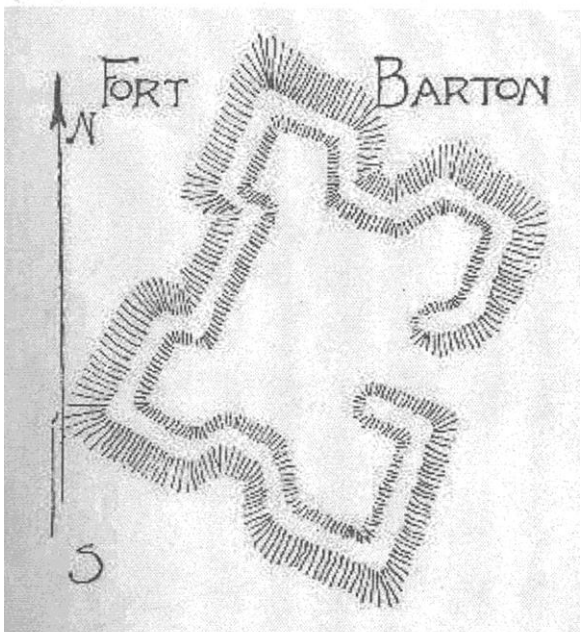


Photo: A hand drawn sketch from Edward Field's "Revolutionary Defenses of Rhode Island".



Photo: The apparent 'ramp' at the north west corner of the earthworks as seen from the tower.

There are several historical descriptions of Fort Barton, from the 1777 Frederick MacKenzie journal entry, "irregular in its figure, but very extensive", to the rough outline included in the 1973 National Register of Historic Places nomination. However, Edward Field's diagram in his 1896 "Revolutionary Defenses in Rhode Island" is of particular interest. Layout of those defenses are certainly varied, but colonial leaders designing them may have had knowledge of, or used reference guides to aid in construction and layout. Therefore, Field's four corners diagram of Fort Barton with its clear, strategic orientation might be considered more than a generic fort shape.

Field's diagram superimposed on the existing earthworks topography shows a rough four corners shape in an elongated form, with access from the east. This could be the layout for a conventional fort approximately 200' long by 100' wide.

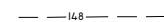




Even if the specific shape can't be confirmed, the earthworks/parapet remnants should be protected with no additional disturbance, and historical interpretation should include a discussion of this shape with explanations of the southwest driveway and north ramp as later intrusions.

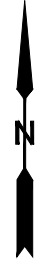
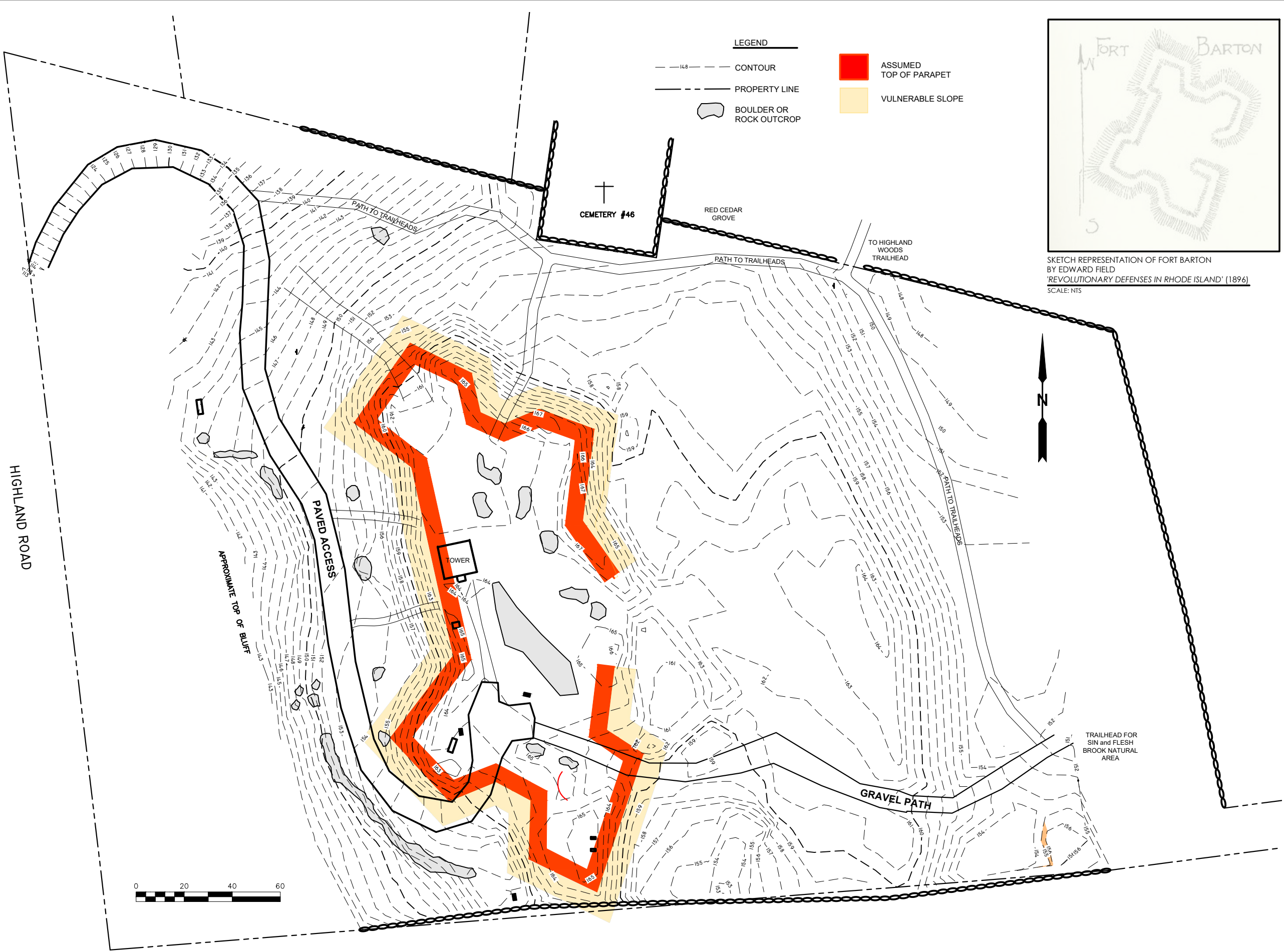
**\*\* See Plan 'FB-5 Fort Barton'**



SKETCH REPRESENTATION OF FORT BARTON  
 BY EDWARD FIELD  
 'REVOLUTIONARY DEFENSES IN RHODE ISLAND' (1896)  
 SCALE: NTS

**LEGEND**

-  CONTOUR
-  PROPERTY LINE
-  BOULDER OR ROCK OUTCROP
-  ASSUMED TOP OF PARAPET
-  VULNERABLE SLOPE



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**FORT BARTON**

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 2.02.21

SCALE:  
 AS SHOWN

FB-5



## CIRCULATION

Visitors have varied interests and come to Fort Barton for many reasons. For some it is an outing for exercise on the trails of Highland Woods and the Sin and Flesh Brook Natural Area. They access those trails from the Highland Road parking area, walking up the steep drive and on through the historic site to the trailheads. Others may come with an interest in the historic redoubt and its military history, or simply to enjoy dramatic views from the hilltop and tower.

Topography has been the major limiting factor in determining park circulation routes. This required a paved driveway from the Highland Road parking area to access the site. It is quite steep, curving around the street-side bluff before leveling out as it passes in front of the redoubt earthworks, then finally turning back to the left up to the level of the tower. Unfortunately, this final turn required regrading fort earthworks.

The driveway is the principal and only vehicular access to the tower and woodland trails from the street. At the top of the first curve is a footpath to the left leading to the two trailheads. Other paths leading up and across fort earthworks follow desire lines to the tower, with some old constructed steps at one location. These paths beat down vegetation, cause erosion, and threaten the integrity of the earthwork.



Photo: The main access route is an intriguing introduction to the fort layout and earthwork construction.



Photo: A gravel footpath leading to the Sin and Flesh Brook Natural Area trails.

Although the climb up from the street is quite strenuous, it can be part of a unique experience and adds to an understanding of the fort's strategic location. It is unlikely that this entry could ever be ADA accessible but there is a less steep, though longer footpath via the Highland Woods street frontage and up a trail on the gentler north slope.

Much of the damage to the earthworks comes from visitors not following the circuitous paved route to the tower, but rather taking "shortcut" climbs up the grass-barrier system. Barriers might keep visitors off the redoubt banks, while maintaining as much as possible its historic character. Additional interpretive signage explaining the fort history could also lead visitors to the best places to understand its layout, construction, and strategic location.

Given the precipitous drop at the edge of the cliff above Highland Road, a site compatible safety barrier would be a desirable element of the circulation plan.

**\*\* See Plan 'FB-6 Circulation'**

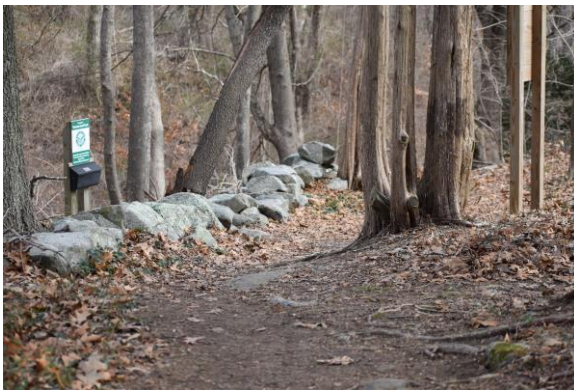


Photo: A footpath along the north property line, connecting the Fort Barton site and Highland Woods.



Photo: Eroded desire lines indicate where visitors have climbed over the earthworks to get to the observation tower.



**LEGEND**

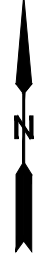
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- PROPERTY LINE
- BOULDER OR ROCK OUTCROP
- PRIMARY CIRCULATION TO THE TOWER & HILLTOP
- INFORMAL ACCESS TO TOWER & HILLTOP
- PRIMARY CIRCULATION TO SIN and FLESH BROOK NATURAL AREA
- INFORMAL ACCESS TO TRAILS
- VEHICULAR ACCESS FOR SERVICE & MAINTENANCE

HIGHLAND ROAD

CEMETERY #46

RED CEDAR GROVE

TO HIGHLAND WOODS TRAILHEAD



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 CONDITIONS

**CIRCULATION**

DATE:  
 2.02.21  
 SCALE:  
 AS SHOWN  
 FB-6



## VIEWS

Spectacular views from both the hilltop and observation tower are a main attraction of Fort Barton. They also vividly illustrate the historic strategic value of the site as a commanding position for military defense of the mainland. The entire area was cleared of trees even before the Revolution, so it was completely open in 1776. In recent decades trees have been planted and many appeared naturally. These were allowed to grow to the extent that they now impede much of the horizon.

### Individual view corridors:

**Distant view west:** This is the principal year-round view from the hilltop and tower. It is limited to the westerly direction by large trees on site and emerging from the cliff-side below. Because many of these trees are evergreen views are blocked summer and winter.

**Distant view south:** This direction is partially open, but only from the hilltop and only in winter when there is a filtered view of the Sakonnet River – a glimpse of what would have been a wide-open vista critical to the fort’s strategic location. Illustrations of that view are on two granite monuments, one near the driveway south of the tower and the other further south, obviously not in its original position.

**Nearby village:** Largely hidden in the summer, houses and other buildings of the hillside and Stone Bridge can be seen from the hilltop and tower. The close proximity of the buildings below the steep cliff on Highland Road can be surprising.

**Tree tops/woods:** From the tower the viewer is at tree canopy level. In the winter, as deciduous trees lose their leaves there are interesting views of Highland Road to the north, and westerly into the preserve’s woodlands. Specific evergreen trees that block distant views are particularly noticeable in the winter months.



Photo: The river and opposite shores are visible from the tower and ground level throughout the year, but the village on the hillside below is more apparent in the winter.



Photo: The river to the south is only visible from ground level and only in the winter.





Photo: Deciduous trees allow for winter views toward Fort Barton Woods.







Fort Barton's location as a prominent high point on the cliff above the Sakonnet River can offer dramatic views of the Sakonnet basin and coastal areas beyond. This is a main attraction of Fort Barton and is important to an understanding of the military significance of both the Revolutionary fort, and to a World War II watchtower that was constructed on site and manned by local citizenry to provide warning of an air attack. Tall trees now restrict what once was a panoramic view, so selective tree removal should be part of the master plan. For the longer term, good park management would include regular tree trimming on the slope above Highland Road, and removal of individual trees that would eventually block critical views.



Photo: A granite monument at the top of the driveway illustrates the open west view.

### Plan 'FB – 7 Views'

**LEGEND**

-  EXISTING DECIDUOUS TREE
-  EXISTING EVERGREEN TREE
-  PROPERTY LINE
-  BOULDER OR ROCK OUTCROP
-  YEAR ROUND OPEN VIEWS
-  FILTERED & SEASONAL VIEWS



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**CLIENT:**  
 TIVERTON OPEN SPACE  
 COMMISSION

EXISTING CONDITIONS	DATE: 2.02.21
	SCALE: NTS
DISTANT VIEWS	FB-7



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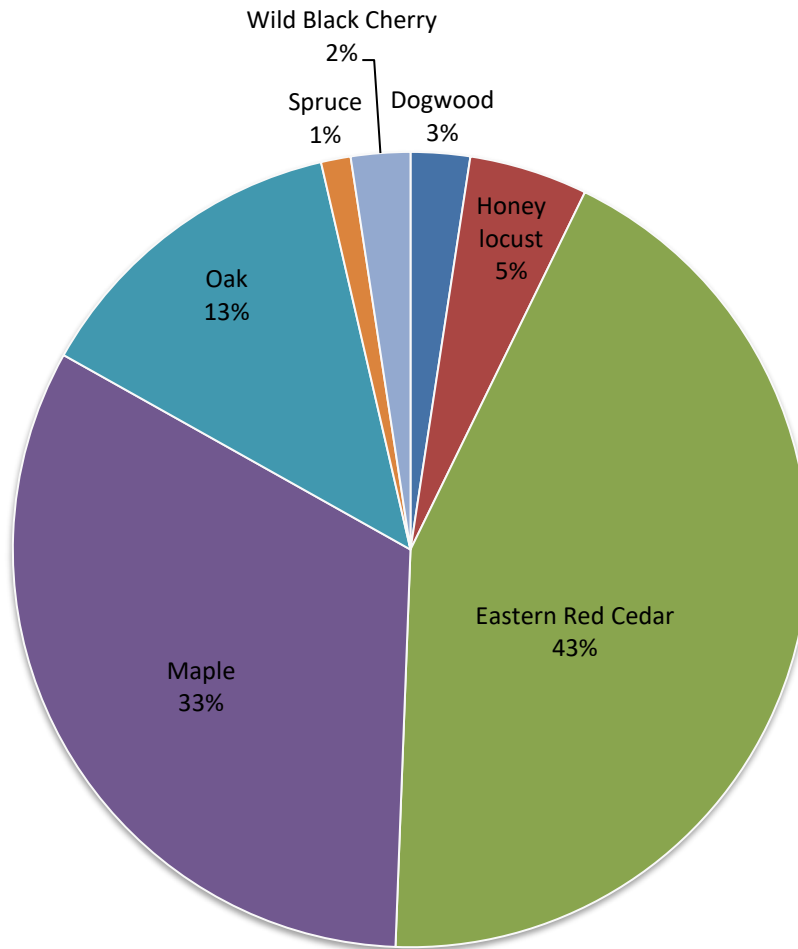
## APPENDIX- TREE INVENTORY

Tree No.	Tree Code	Type of Tree	Species	General Location	General Tree Condition	DBH	Pruning or Removals			Notes
							Pruning Needed	Remove Tree due to condition	Remove Tree for view	
1	GT	S	Honey locust	Top of drive-left	Good	14				Listed as 'HWTRN' on survey
2	MPL	S	Maple	Top of drive-left	Good	8				Crowding cedar (#3) Listed as 'TLP' on survey
3	JV	E	Red Cedar	Top of drive-left	Fair	10				One sided
4	JV	E	Red Cedar	Top of drive-right	Good	16				
5	GT	S	Honey locust	Top of drive-right	Good	20			X	Listed as 'HCKRY' on survey--Remove for View
6	GT	S	Honey locust	Top of drive-left	Good	4				Listed as 'HAWTHRNE' on survey
7	GT	S	Honey locust	Top of drive-left	Good	4				Listed as 'HAWTHRNE' on survey
8	JV	E	Red Cedar	Top of drive-right	Good	12				
9	JV	E	Red Cedar	Top of drive-right	Good	12				
10	JV	E	Red Cedar	Top of drive-right	Good	12				
11	PA	E	Spruce	Top of drive-right	Poor	22		X	X	Dbl. trunk/ mis-shapen-- Remove for condition and view
12	JV	E	Red Cedar	Along drive-right	Good	12				At edge of rocky cliff
13	JV	E	Red Cedar	Along drive-right	Good	12				At edge of rocky cliff
14	OAK	S	Pin Oak	Top of Drive-left-Plaque	Good	12				
15	COR	O	Dogwood	Along drive-left	Poor	6		X		Remove for condition
16	JV	E	Red Cedar	NW corner of earthwork	Fair	12				
17	JV	E	Red Cedar	NW corner of earthwork	Fair	8				
18	JV	E	Red Cedar	NW corner of earthwork	Poor	12		X		Remove for condition
19	JV	E	Red Cedar	Along drive south end-left	Good	16				
20	JV	E	Red Cedar	Along drive south end-right	Good	12				
21	MPL	S	Maple	Along drive south end-right	Poor	12		X	X	Lots dead wood-- Remove for condition and view
22	MPL	S	Maple	Along drive south end-right	Good	10				
23	JV	E	Red Cedar	Along drive south end-right	Good	16				
24	MPL	S	Maple	Far south end of drive-right	Good	10				
25	OAK	S	Oak	Far south end of drive-right	Good	20	X			
26	MPL	S	Maple	Far south end of drive-right	Fair	18				
27	JV	E	Red Cedar	Near West Overlook granite	Good	16				
28	JV	E	Red Cedar	Near West Overlook granite	Good	12				
29	JV	E	Red Cedar	Across from West Overlook granite	Good	14			X	Consider removing for view --- Double Trunk
30	JV	E	Red Cedar	Along drive south end-right	Good	12	X			Remove dead branches
31	JV	E	Red Cedar	South of Tower-Near Holt's Trail Plaque	Fair	12				
32	JV	E	Red Cedar	South of Tower-Near Holt's Trail Plaque	Good	14				
33	MPL	S	Maple	South gravel Path-Right side	Good	18				
34	MPL	S	Maple	South gravel Path-Right side	Fair	22				
35	MPL	S	Maple	South gravel Path-Right side	Fair	22				
36	OAK	S	Oak	South gravel Path-Left side	Good	20	X			Trim one dead branch
37	MPL	S	Maple	South-east of earthwork	Good	30				
38	OAK	S	Blk.Oak	South-east of earthwork	Fair	18				Listed as 'MPL' on survey
39	MPL	S	Maple	South-east of earthwork	Good	20				
40	OAK	S	Oak	East of earthwork	Good	16				
41	COR	O	Dogwood	Top of earthwork-east of Tower	Poor	8		X		Rotten bottom-Remove
42	JV	E	Red Cedar	Top of earthwork-next to Tower	Good	22				
43	MPL	S	Maple	Top of earthwork-Northeast of Tower	Good	8				
44	JV	E	Red Cedar	Top of earthwork-Northeast of Tower	Good	16				
45	JV	E	Red Cedar	Top of earthwork-Northeast of Tower	Good	10				
46	JV	E	Red Cedar	Top of earthwork-North of Tower	Good	10				
47	JV	E	Red Cedar	Top of earthwork-North of Tower	Good	16				
48	JV	E	Red Cedar	North of earthwork	Fair	12				
49	JV	E	Red Cedar	North of earthwork	Good	14				
50	JV	E	Red Cedar	North slope of earthwork	Good	6				Holding slope
51	MPL	S	Maple	North slope of earthwork	Fair	16	X			3 trunks- Trim- Holding slope
52	MPL	S	Maple	Northeast- below earthwork	Fair	24				
53	OAK	S	Oak	East- below earthwork	Good	24	X			Trim dead branches
54	MPL	S	R. Maple	Northeast- below earthwork	Good	18				

Tree No.	Tree Code	Type of Tree	Species	General Location	General Tree Condition	DBH	Pruning or Removals			Notes
							Pruning Needed	Remove Tree due to condition	Remove Tree for view	
55				Outside of study area						
56				Outside of study area						
57				Outside of study area						
58				Outside of study area						
59				Outside of study area						
60				Outside of study area						
61				Outside of study area						
62				Outside of study area						
63				Outside of study area						
64				Outside of study area						
65	MPL	S	Maple	Near south property line	Poor	10			X	Possibly remove, but no hazard
66	JV	E	Red Cedar	Top of drive-right-near bench	Good	12				
67	JV	E	Red Cedar	Top of drive-right-top of cliff	Fair	10				
68	JV	E	Red Cedar	West of tower-bottom of earthwork	Good	10				
69	OAK	S	Oak	North of earthwork-bottom of slope	Fair	5				
70	OAK	S	Wht. Oak	North of earthwork-bottom of slope	Good	20				
71	MPL	S	Maple	Near south property line	Good	12				
72	JV	E	Red Cedar	South gravel Path-Right side	Poor	10				
73	MPL	S	Maple	South gravel Path-Right side	Good	14				
74	PS	S	Blk. Cherry	Top of earthwork-Southeast of Tower	Poor	10		X		Leaning-remove
75	PS	S	Blk. Cherry	Top of earthwork-Southeast of Tower	Poor	8		X		Leaning-remove
76	MPL	S	Maple	South gravel Path-Right side	Good	10				
77	MPL	S	R. Maple	Northeast base of earthwork slope	Poor	20				Poor condition, but is holding earthwork slope
78	MPL	S	R. Maple	Northeast base of earthwork slope	Poor	12				Poor condition, hollow but is holding earthwork slope
79	MPL	S	R. Maple	South of cemetery	Dead	8		X		Dead-Remove
80	MPL	S	R. Maple	South of cemetery	Good	12				Remove poison Ivy
81	MPL	E	Red Cedar	Southeast of cemetery	Good	12				
82	MPL	E	Red Cedar	Southwest of cemetery	Good	8				
83	MPL	S	Maple	Southeast of cemetery	Poor	5		X		Multi-stemmed-Remove-Is interfering with good Red Cedar
84	JV	E	Red Cedar	Southeast of cemetery	Good	8				
85	JV	E	Red Cedar	Top of earthwork-North of Tower	Poor	6		X		Remove
86	JV	E	Red Cedar	Top of earthwork-Northeast of Tower	Poor	6		X		Leaning-Remove
87	JV	E	Red Cedar	Top of earthwork-Northeast of Tower	Poor	6		X		Poor-Remove
88	MPL	S	Maple	South gravel Path-Left side	Good	18				
89	OAK	S	Oak	South gravel Path-Right side	Good	14				
90	OAK	S	Wht. Oak	Top of drive-right-top of cliff	Dead	stump		X		Stump-Remove
91	JV	E	Red Cedar	Top of drive-right-top of cliff	Fair	10				
92	OAK	S	Oak	Top of drive-right-top of cliff	Fair	10			X	Remove for view (oak or maple)
93	MPL	S	Maple	Far south end of drive-right	Fair	12			X	(off property) for view to south

### Tree Species Diversity

Species Code	Botanical Name	Common Name	Actual Number of Trees	Percentage of Total Trees
COR	Cornus	Dogwood	2	3%
GT	Gleditsia triacanthos	Honey locust	4	5%
JV	Juniperus virginiana	Eastern Red Cedar	36	43%
MPL	Acer	Maple	27	33%
OAK	Quercus alba	Oak	11	13%
PA	Picea	Spruce	1	1%
PS	Prunus serotina	Wild Black Cherry	2	2%

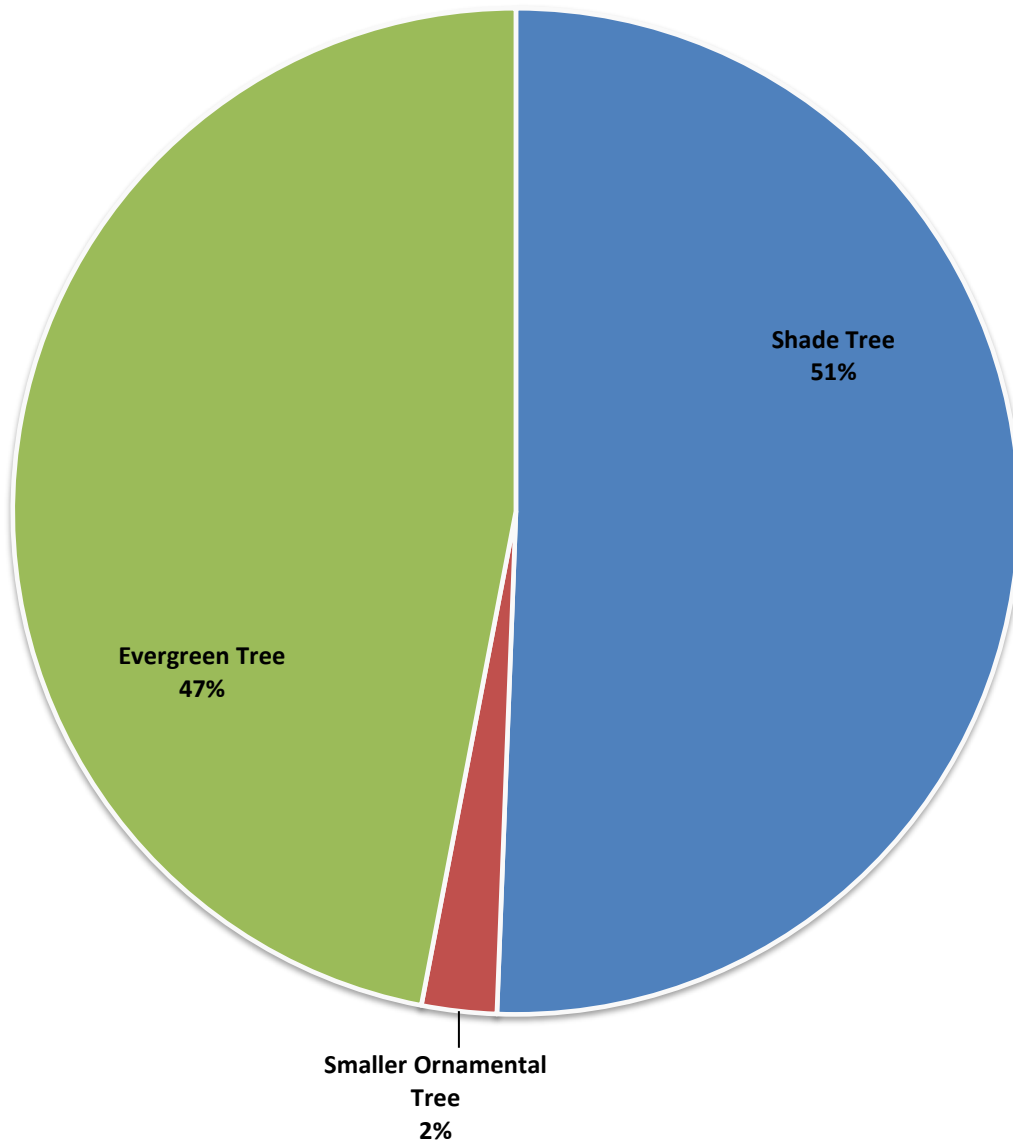


### Tree Species Diversity

## Tree Types

Tree Type	Actual Number of Trees	Percentage of Total Trees
Shade Tree (S)	42	51%
Ornamental Tree (O)	2	2%
Evergreen Tree (E)	39	47%

## Tree Types

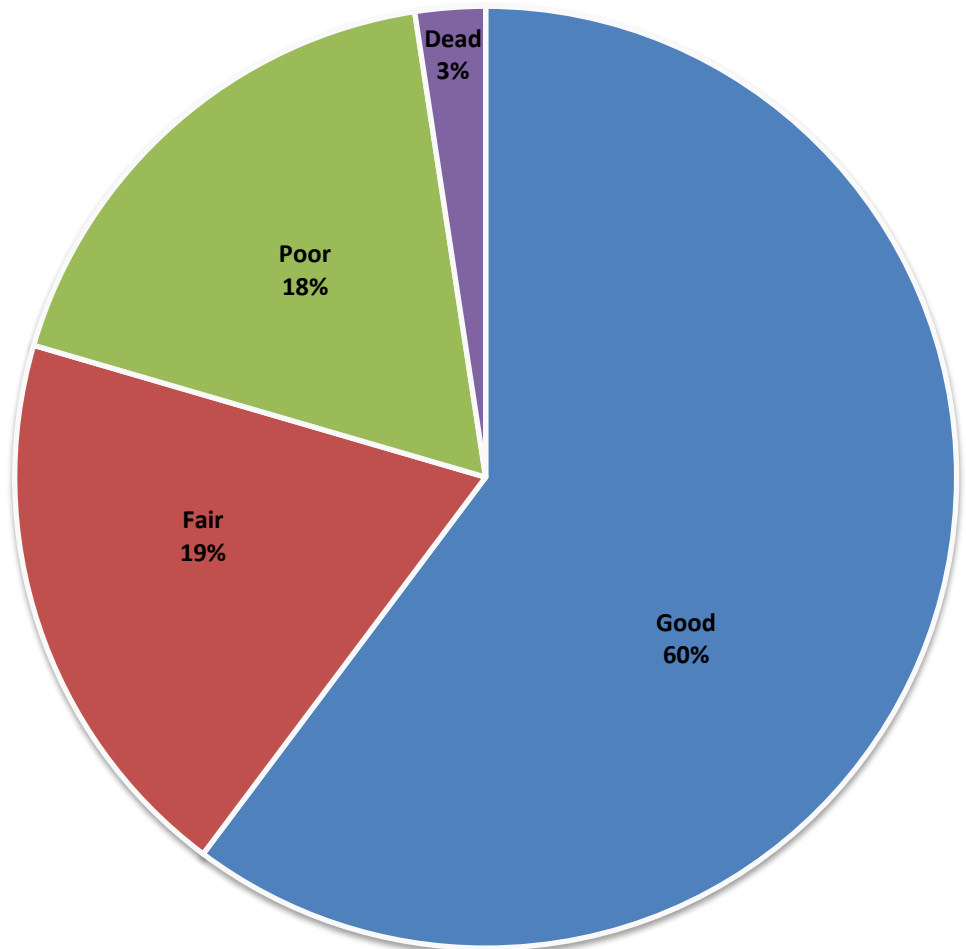




### General Tree Conditions

Tree Condition	Actual Number of Trees	Percentage of Total Trees
Good	50	60
Fair	16	19
Poor	15	18
Dead	2	3

### General Tree Conditions





## APPENDIX 2 BRADFORD ASSOCIATES, LLC. PROPOSAL

November 25, 2019

Tiverton Open Space Commission  
Tiverton Town Hall  
343 Highland Rd.  
Tiverton, RI. 02878

RE: Landscape Architectural Services  
Master Plan for Fort Barton, Tiverton, RI

Dear Commission,

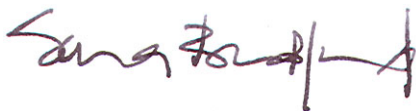
Although I am familiar with Fort Barton and Highland Woods, a climb up the hill to Fort Barton is still a welcome discovery of the rich cultural and natural heritage of the redoubt site and adjacent landscape. Your stewardship of the Fort Barton site is so very important to protecting and maintaining it for those who appreciate it now and will in the future. A master plan will be a valuable tool to document and evaluate ideas to chart the path forward.

We are pleased to submit a proposal for providing professional landscape architectural services for the Master Plan for Fort Barton. We prepared the Master Plan for Highland Woods in 2014. That project and others have included valuable experience in master planning, taking advantage of our interest in historic and natural area stewardship and contextual design.

We thank you for the opportunity to submit this proposal for providing the professional services that will be necessary for you to achieve your goals.

Should you require any clarification of this proposal or if additional information is required please don't hesitate to contact me.

Sincerely,



Sara Bradford, RLA

## Fort Barton Master Plan

### Introduction

The Tiverton Open Space Commission and the Land Trust have been thoughtful in their stewardship of the Fort Barton site. Through their work and experience, current management issues as well as broader goals for ongoing preservation and enhancement opportunities for the Fort Barton site have been identified. A master plan can coordinate and build on these ideas and will be a valuable tool to document and evaluate ideas to plan a range of improvements from management strategies to construction projects.

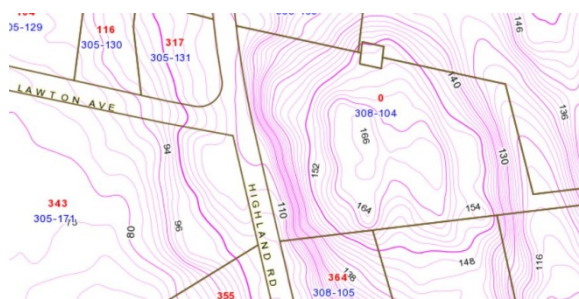


*The sign at the entrance to Fort Barton*

### Scope of Work

#### 1. Base Map

Mapping will center on the western Fort Barton area and include the entrance to the Red Trail and the immediately adjacent Highland Woods woodland but not the entire Highland Woods and Sin and Flesh Brook Natural Area.



*Tiverton GIS topography data showing 2 foot contours*

Basic mapping will be developed using the town's GIS data (topo at 2 foot contours), aerial photography and onsite observations to generally locate site features such as topographic remnants of the redoubt, tower, driveway, distinctive trees and rock outcrops as well as vegetation massing. With our onsite observations we will also note the locations of existing trails and plant species or general vegetation types.

As a supplementary service, enhanced mapping could be provided as survey to supplement and confirm the GIS data. The survey would provide topo at 1 foot contours and spot elevations to more accurately describe the topography of the central area of the site. Of particular importance would be the size and shape and areas of erosion or other degradation of the redoubt itself and the area of a proposed formalized access way to the redoubt. Significant trees and rock outcrops would also be accurately located. The detailed information would be important as record of the redoubt condition and an accurate basis for location and construction of elements such as paths and steps.

Plans will be prepared as AutoCAD files that can be used at various scales and sizes to convey various types of information.

#### 2. Conceptual Design

The site design will be comprehensive and address numerous concerns or problems, with many suggestions having been discussed by the Land Trust and Open Space Commission. These issues are of course inter-related but a list still makes a good starting point for the effort to develop site solutions.

A. Circulation: With both tower and trailhead destinations.

- Various approaches have been suggested. The ideas will be delineated so they can be compared and evaluated, considering factors such as the following:
  - Desire lines/ destinations
  - Topography, safety and ease of travel
  - Steps that may be needed
  - Visual experience
  - Protection and appreciation of historic features such as the redoubt and cemetery
  - Interpretive opportunities
  - Preservation of significant vegetation



*View from the north toward the Fort Barton redoubt*

B. Views from the tower and redoubt area:

- The distant views are an important aspect of the Fort Barton visitor experience. The hill top location is of course central to the redoubt location. The tower, though perhaps confusing or compromising to the understanding of the redoubt history, is still a major attraction. With site information, aerial photos and broader scale mapping, the extent of clearing will be considered with various factors including:
  - Breadth of desirable distant views
  - Clearing for explanation/interpretation of historic military tactics and objectives
  - Consideration for nearby intrusive or otherwise negative views
  - Preservation of desirable individual trees and vegetation masses



*View of the Sakonnet River and beyond from the tower at Fort Barton*

C. Signage:

- Signs, although necessarily discrete, carefully placed and designed are part of fostering & encouraging respectful use of the site and appreciation and protection of its historic features.
- Location, orientation and topics will be suggested for the various signs and types of information to be provided:
  - Wayfinding/circulation guidance
  - Interpretive signs
  - Regulatory information



*An Interpretive sign designed by Bradford Associates for Prospect Terrace in Providence*

#### D. Site/visitor amenities:

- Various site furnishings and other amenities or construction elements contribute to the visitor experience. Typical details, site specific and/or related to those of other Land Trust properties will be suggested in the master plan. Elements can include, but not be limited to fences, barriers, stairs, benches and standards for signs.



*Granite step access under construction at historic Greene Cemetery, Warwick RI  
Designed by Bradford Associates*

#### E. Maintenance and management:

- Concerns for practical maintenance and environmentally responsible practices will contribute to design decisions. Meadow grasses on steep slopes instead of regular mowing is one of those logical solutions. In addition, ways of controlling invasive and non-native plants another is another issue that is important to the area.

#### F. Commission input

- Because much of the master plan design will be coordinating and synthesizing Commission suggestions and solutions, Commission input is essential. Conceptual design will develop these ideas so that the Commission can evaluate the options and determine priorities and preferences.

#### *Conceptual Design Deliverables:*

- *1 kickoff meeting*
- *1 progress meeting*
- *Design options considering the various issues outlined above*

### 3.Design Development

Plans will be revised and developed based on the comments and response to preliminary plans. The plan and typical details will illustrate the physical layout but also consider the strategies for implementation showing priorities and phasing.

The Commission's approval of these plans will be the basis of final master plan report documents.

#### *Design Development Deliverables:*

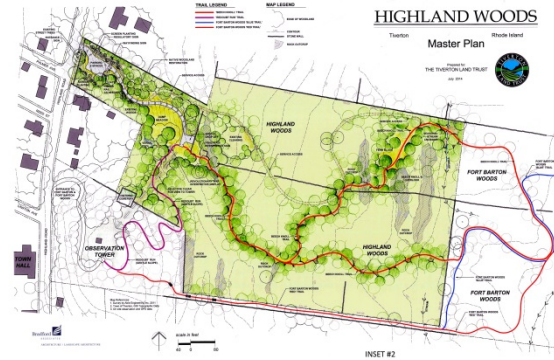
- *1 meeting*
- *Design development plan and briefing*

### 4.Final Design

Final design and master plan report will compile plans and narrative to create a Final Master Plan record and fund raising tool.

Presentation graphics will be developed from AutoCAD drawings and rendered in color as appropriate, to be easily understood. (Narrative, photographs and sketch perspectives helpful to explain the key elements will also be included.)

Various presentations through the project will be in PowerPoint or suited to it, so the final edit will include background information, the design objectives, design process, final design and talking points in a format that can be used by the consultant or Commission for public presentation and fund raising.



*Final Master Plan rendering for Highland Woods completed by Bradford Associates in 2014*

#### *Final Design Deliverables:*

- *Digital files as PowerPoint presentation*
- *PDF of final plans and Master Plan Report*

#### **Fees for Services**

- Master Plan (as described above) based on available GIS base plan data **\$ 7,200.00**
- Supplementary survey work to be provided by Able Engineering, Inc. Fees for survey will be provided separately.



*'Tiverton 1819' from the National Archives*